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**Central bank agency and monetary governability in the euro area:
Governing through money, trust, and expectations**

Thesis submitted in partial fulfilment of the requirements for a PhD in
Politics and International Studies conducted in the Department of Politics and Inter-
national Studies at the University of Warwick

Supervised by Professor Matthew Watson and Doctor Amandine Crespy

September 2014

Table of contents

List of tables and figures ... vi

List of abbreviations ... vii

Acknowledgements ... viii

Declaration ... ix

Abstract ... x

Introduction ... 1

Central banking – a blind spot in the political science literature on central banks? ... 3

The monetary policy paradigm of the Great Moderation, and why it (still) matters ... 6

Analytical framework and theoretical concepts: Central bank agency, governability, performativity, audiences, and apparatuses ... 10

Case, data, and methodology ... 15

Contributions to the literature ... 19

Chapter structure ... 22

1. The making and unmaking of governability in macroeconomic discourse ... 26

1.1 Macroeconomic governability paradigms ... 29

1.1.1 Governability paradigms vs. policy paradigms ... 30

1.1.2 Three elements of macroeconomic governability paradigms ... 33

1.2 From Keynesian uncertainty to the neoclassical synthesis ... 35

1.2.1 Phase 1: A new vision – Keynes' General Theory ... 35

1.2.2 Phase 2: Formalisation and operationalisation – the neoclassical synthesis ... 37

1.2.3 Phase 3: Measurement and quantification – the econometric revolution ... 38

1.2.4 'Keynesian' governability and overconfidence ... 39

1.3 From New Classical ungovernability to the new neoclassical synthesis ... 42

1.3.1 Phase 1: A new Vision – microfounded general equilibrium macroeconomics ... 43

1.3.2 Phase 2: Formalisation and operationalisation – price rigidity, again ... 46

1.3.3 Phase 3: Empirical modelling – the promises and limitations of DSGE ... 48

1.3.4 New neoclassical governability and overconfidence ... 50

1.4 Conclusion ... 52

2. Toward a performative theory of central bank agency and monetary governance ... 55

2.1 State agency in relation to the economy: From mechanical engineering to performative governance ... 58

2.2 What does it mean to say that central bank agency is performative? ... 65

2.2.1 Monetary governance: From game against nature to game with rational agents ... 66

2.2.2 Central bank agency, governmentality, and performativity ... 68

2.3 Performance and performance: Two types of performativity ...	70
2.3.1 On the intellectual genealogy of Callonian performativity: Continuity with STS, rupture with economic sociology ...	72
2.3.2 The process of performance: Disentangling and framing ...	74
2.3.3 Performance as act or ritual ...	76
2.4 Disaggregating ‘the public’: Towards a multidimensional conception of central bank agency ...	79
2.5 Three apparatuses and three performative modes of monetary governance ...	83
2.5.1 <i>The financial apparatus of monetary policy implementation: Governing the money market ...</i>	86
2.5.2 <i>The communicative apparatus of expectation management: Governing insiders ...</i>	87
2.5.3 <i>The ideological apparatus of monetary trust: Governing outsiders ...</i>	88
2.6 Conclusion ...	89
3. Governing the money market: The financial apparatus of monetary policy implementation ...	92
3.1 The money market and the transmission mechanism of monetary policy ...	95
3.2 The operational framework of the Eurosystem as of 1999 ...	102
3.2.1 Minimum reserve requirement ...	102
3.2.2 Open market operations ...	106
3.2.3 Standing facilities ...	108
3.3 Governing through money in good times and in bad ...	110
3.3.1 Contested collateral: The evolution of the collateral framework, 1999-2014 ...	111
3.3.2 From supply-driven to demand-driven liquidity provision: The evolution of the tender procedures of the Eurosystem, 1999-2014 ...	119
3.3.3 Centralising central banking? Central bank agency and monetary governability under structural liquidity surplus conditions ...	128
3.4 Conclusion ...	133
4. Governing insiders: The communicative apparatus of expectation management ...	137
4.1 Expectation formation as the performative effect of a communicative apparatus ...	138
4.2 The transparency paradox ...	142
4.3 Monetarist prologue I: Disentanglement and framing under the Fed’s Reserve Position Doctrine (1979-1982) ...	145
4.4 Monetarist prologue II: Disentanglement and framing under the Bundesbank ...	147
4.5 The monetary policy strategy of the Eurosystem ...	150
4.6 Elaborating the communicative apparatus: The early years of EMU ...	155
4.6.1 Ambiguity in the monetary policy strategy: The definition of price stability and the role of the monetary pillar ...	157
4.6.2 The question of forecast transparency ...	159
4.7 The communicative apparatus of the euro area in action ...	163

4.7.1	Silence around the monetary pillar ...	164
4.7.2	Pavlov's dog and the inflation Taliban ...	165
4.7.3	The curious case of ultra-stable inflation expectations ...	168
4.7.4	Does the ECB really know the value of the output gap? Does it matter if it doesn't? ...	170
4.8	Conclusion: Performance, credibility, and knowledge in monetary governance ...	172
4.8.1	The performative dimension of credibility: 'Inflation nutters' and pretence of single-mindedness: ...	172
4.8.2	The epistemic dimension of credibility: Dependability vs. epistemic authority ...	175
4.8.3	Pretence of knowledge: Pathology or constitutive element of expectation management? ...	177
5.	Governing outsiders: The ideological apparatus of monetary trust ...	180
5.1	Studying monetary trust: An interdisciplinary project ...	181
5.2	The international political economy of money, trust, and central banking ...	185
5.3	Money as credit and the hierarchy of money ...	189
5.4	Money and 'ideological naturalisation': Towards a performative theory of money ...	194
5.5	The sociology of monetary trust and the ideological apparatus of monetary policy ...	197
5.6	After Bretton Woods: Performing credit money with disinflation, low inflation, and quantitative easing ...	201
5.6.1	'Look, no hands': Why the Volcker Fed pretended to target monetary aggregates ...	202
5.6.2	Money under control: Performing the fiction of exogenous money in the euro area ...	206
5.6.3	We don't control money! Why the Bank of England started worrying and stopped loving monetary ignorance ...	216
5.7	Conclusion: The myth of the end of the mystique of central banking ...	219
6.	Fragile governability: The three apparatuses during the financial crisis ...	222
6.1	Policy implementation after the crisis: Performing a governable ABS market ...	224
6.1.1	Performing a new and 'improved' market for asset-backed securities ...	225
6.1.2	Expanding the reach of the financial apparatus: The ABS market as a precondition for a potential future quantitative easing programme ...	230
6.2	Expectations during the crisis: Forward guidance ...	234
6.2.1	Revolution or evolution? ...	236
6.2.2	Making the long-term interest rate a policy variable ...	237
6.2.3	How forward guidance has weakened the communicative apparatus by undermining 'pretence of knowledge' ...	239
6.3	Public monetary trust during the crisis: The case of the TARGET2 debate in Germany ...	245
6.3.1	A primer on the economics of TARGET2 ...	247
6.3.2	The politicisation of the euro area's automated payment settlement system in Germany ...	255
6.3.3	Central bank 'transparency' in light of the impenetrable complexity of TARGET ...	259
6.4	Conclusion ...	261

Conclusion ... 265

Fragile monetary governability: The three apparatuses in good times and in bad ... 267

The financial apparatus ... 267

The communicative apparatus ... 269

The ideological apparatus ... 271

The ECB and the ‘strange non-death of neoliberalism’: How taking central bank agency seriously complicates the picture yet is essential to understanding it ... 272

The ECB as an agent of financialisation ... 274

The ECB and the return of hydraulic macroeconomic governance ... 277

Central banking as central planning ... 280

The institutional entrenchment of the financialisation-ECB empowerment nexus and the prospects for change – bringing outsiders back in ... 281

Appendix 1: List of Interviews ... 286

Bibliography ... 288

List of tables and figures

- Figure 1:** The transmission mechanism of monetary policy in the euro area ... 61
- Figure 2:** Convergence of bureaucratic authority and market transactions in central bank practice ... 70
- Figure 3:** The analytical framework: Three dimensions of central bank agency and three performative modes of monetary governance ... 86
- Figure 4:** The yield curve for AAA-rated euro area central government bonds as published by the ECB on 12 May 2014 ... 98
- Figure 5:** How the minimum reserve requirement increases the dependency of the banking system on ECB liquidity and enlarges the balance sheet of the Eurosystem ... 105
- Figure 6:** Illustration of the ECB's corridor approach: Key interest rates and EONIA, January 1999 - August 2014 ... 110
- Figure 7:** Consolidated balance sheet of the Eurosystem, January 2007 - July 2014, EUR trillions ... 127
- Figure 8:** Issuance and use in Eurosystem refinancing operations of European ABS (including mortgage-backed securities), EUR billions ... 227
- Figure 9:** TARGET2 balances of selected NCBs up to May 2014, EUR billions ... 249
- Table 1:** Two policy paradigms, two models of macroeconomic state agency ... 58
- Table 2:** Economic groups affected by monetary policy ... 81
- Table 3:** Balance sheet impact of a payment from Mr. A in Spain to Mrs. B in Germany ... 251
- Table 4:** Balance sheet impact of a payment from Mr. A in Spain to Mrs. B in Germany with additional reserve borrowing by Santander ... 252

List of abbreviations

ABS	Asset Backed Security
ANT	Actor-Network Theory
BIS	Bank of International Settlements
CPE	Comparative Political Economy
ECB	European Central Bank
EMI	European Monetary Institute
EMU	European Economic and Monetary Union
EONIA	Euro OverNight Index Average
FOMC	Federal Open Market Committee
IPE	International Political Economy
LTRO	Long-Term Refinancing Operation
MRO	Main Refinancing Operation
RPD	Reserve Position Doctrine
SME	Small and Medium Enterprises
SMP	Securities Markets Programme
SPF	Survey of Professional Forecasters
SSF	Social Studies of Finance
SSM	Single Supervisory Mechanism
STS	Science and Technology Studies
TARGET	Trans-European Automated Real-time Gross Settlement Express Transfer System
TFEU	Treaty on the Functioning of the European Union

Acknowledgements

I must firstly thank both the academic and administrative staff at the Department of Politics and International Relations at the University of Warwick and the *Centre d'étude de la vie politique* at the Université Libre de Bruxelles for their highly professional support and assistance. I would also like to acknowledge the financial assistance of the European Commission and the Erasmus Mundus PhD School 'Globalisation, the EU, and Multilateralism' (GEM), which made it possible for me to conduct my doctoral research. The leaders and organisers of the GEM PhD School have done an outstanding job putting together and running this truly global community. Being a part of it has been a fantastic experience. Similarly, I would like to thank Oliver Kessler and Charlie Dannreuther who, by allowing me to participate in the activities of the COST Action 'Systemic Risk, Financial Crises and Credit' (IS0902), have opened more doors for me than I even knew there were. Last but not least, I am deeply grateful to Dieter Kerwer whose support and friendship during a (financially and otherwise) critical period saved both me and this project.

The deepest acknowledgements, however, should be reserved for my two supervisors, Matthew Watson and Amandine Crespy, who have been outstanding. Matthew may very well be the best supervisor on this planet, or at least I could not have wished for more dedication, patience, and brilliance. His generosity as a mentor is unsurpassed, and I left every single one of our many meetings with my head buzzing with inspiration and new ideas. Similarly, I have benefited immensely from the lucidity and intelligence of Amandine's unflinchingly constructive feedback. Her ability to not only identify a problem but to also show how it can be solved is exceptional. I am also deeply grateful for the professionalism with which Matthew and Amandine have turned a potentially difficult situation with two supervisors in two different countries who initially did not even know each other into an asset. Without their ceaseless and untiring support this thesis could not have come to fruition.

Among the colleagues and friends who have made these past four years the best of my life I would like to single out Toby Pforr, Amin Samman, and Steffen Murau who have improved this text in various ways; Tobias Wille and Sebastian Schindler whose energy and creativity have been contagious; Helena, Nathanja, Patricia, and Fabian, for continuing to be my true old friends; Elisa and Rosy, who have become new friends; Roberto, whose settled-down lifestyle and restless intellect I admire; Matthias, for his fake contempt and his real friendship; and Fabian, my brother.

My deepest and most inexpressible debt is to my family. There are no words for the unconditional love and support my grandparents, mother, and father and have bestowed upon me from day one. Without them this project would never even have begun.

Declaration

This thesis is entirely my own work and neither the thesis itself, nor any part thereof, has been submitted for examination at any other university. Parts of the first chapter on governability in macroeconomics have been published in article form and can be found here:

Braun, B. 2014: Why Models Matter: The Making and Unmaking of Governability in Macroeconomic Discourse, *Journal of Critical Globalisation Studies*, 7: 48-79.

Abstract

Aiming to speak to broader debates about the nature of state power in relation to the economy this thesis concentrates on central bank agency and monetary governability. More specifically, it focuses on a single case: The agency of the European Central Bank (ECB) and the making, unmaking, and re-making of monetary governability in the euro area from 1999 through 2014. This choice is motivated by the euro area representing a unique ‘natural experiment’ in establishing monetary governability from scratch under conditions of 21st century financialised capitalism. The thesis is divided into two parts. Chapters one and two develop an original analytical and conceptual framework for the study of central bank agency. Starting out from the premise that *governability* is not a natural feature of the economy but needs to be actively established, I argue that any attempt to answer the question of the ECB’s role in that process has to account for the fundamental *hybridity* of central bank agency both as a central bureaucratic authority and as a bank, as well as for its *multidimensionality* as it addresses different governability challenges posed by different audiences. It is on the basis of these inductively won observations that I embrace the theoretical vocabulary of *performativity*, conceptualising governability as a performative effect of the interactions between the ECB and its audiences. The arrangements that govern these interactions are described, using a Foucauldian concept, as ‘apparatuses’. On that basis, the second part of the thesis comprises three empirical chapters on the financial apparatus of monetary policy implementation, the communicative apparatus of expectation management, and the ideological apparatus of monetary trust. The sixth chapter brings the analysis of the three apparatuses up to date by focusing on three key episodes from the recent financial and economic crisis.

Introduction

The language of money is a powerful tool, and it is also a tool of power. Incomprehension is a form of consent. If we allow ourselves not to understand this language, we are signing off on the way the world works today.

(John Lanchester, novelist, 2014)

The latest edition of the ‘Most Powerful People’ list of Forbes Magazine was topped, unsurprisingly, by Vladimir Putin, Barack Obama, and Xi Jinping. Ben Bernanke and Mario Draghi came in seventh and ninth, respectively. While rankings of this kind should not be taken too seriously, they provide a welcome opportunity to ask a seemingly naive question about the European Central Bank (ECB): Why should the president of an organisation charged with maintaining price stability in the euro area be one of the most powerful people in the world?¹ Six years into post-war Europe’s most severe financial and economic crisis, headlines in the financial press reinforce the impression that the fate of a continent somehow lies in the hands of the ECB’s Governing Council. On August 15, 2014, the lead editorial of the Financial Times reacted to the news of euro area GDP growth having stalled by declaring that “Europe now needs full-blown QE – ECB must take bold moves to lift growth across eurozone” (Financial Times 2014f). What exactly does the ECB do when it ‘moves boldly’? And if it has the means to ‘lift growth’, why does it “for now, prefer to do nothing” (Financial Times 2014e)?

This study is motivated by the diagnosis of a gap between the power held by central bankers in the new world of “central bank-led capitalism” (Bowman et al. 2013)

¹Note that while the Council Regulation to confer supervisory and regulatory tasks to the ECB was issued on 15 October 2013, the ECB will assume its new responsibilities under the Single Supervisory Mechanism (SSM) only in November 2014 (Council of the European Union 2013).

and the knowledge held by political scientists regarding *the nature and the sources of central bank agency*. While the study of the workings of power in all spheres of social life has long been at the heart of political science, sociology, and anthropology, the same cannot be said for *economic power*, which frequently “falls in the interstices between economics and politics”, and therefore “remains an understudied concept” (Drezner/McNamara 2013: 158).² In the specific case of monetary governance in the euro area, this has led to a situation in which we know a reasonable amount about the *economics* of and the *political power struggles* behind the design and governance of European Economic and Monetary Union (EMU), but little about the nature of central bank agency – that is, about *how* the ECB exerts the power it is widely regarded as possessing in abundance. Thus, whereas the literature has tended to take the *governability* of the economy as a given, preferring to focus on the determinants and the content of macroeconomic policy, my starting point is that governability is *not* a natural property of the economy and that its configuration therefore deserves the closest theoretical and empirical scrutiny. This leads to an investigation of the agency of the ECB – or, more precisely, of the Eurosystem³ – not in relation to other branches of European or national government, but *in relation to the economy*. Thus, this work addresses three closely related questions: How does the ECB render the euro area governable, that is, amenable to the instruments it has at its disposal? Once governability is established, how does monetary operate during ‘normal times’? And how does the ECB cope with challenges to governability, especially with the large adverse shock

² For an systematic discussion of economic power, see Strange (1988: ch. 2).

³ The ‘Eurosystem’ comprises the ECB as well as the national central banks (NCBs) of all EU member countries that have adopted the euro. The ‘European System of Central Banks’ (ESCB), on the other hand, comprises the ECB and all the NCBs of all EU member countries, regardless of whether they have adopted the euro or not.

that has been the financial and economic crisis of 2008-2014? These are the questions this thesis sets out to find the answers to.

The remainder of this introduction proceeds as follows. The first section argues that the political science literature on monetary policy mostly evades the question of central bank agency and monetary governability. Section two gives a primer on the policy paradigm of inflation targeting, which has taken the world of central banking by storm during the 1990s. On that basis, section three presents the analytical framework and the key theoretical concepts that underpin this study. Methodological remarks on case selection and data in section four are followed by a list of the specific contributions this work makes to the political economy literature. The introduction concludes with a brief overview of the content of the individual chapters.

Central banking – a blind spot in the political science literature on central banks?

While the fields of International and Comparative Political Economy (IPE & CPE) as well as the European integration literature offer important insights into the politics of international and domestic monetary relations, they mostly do not engage with central banking *per se* – that is, with the concrete practices of monetary governance. Over the past decade, however, an emerging, interdisciplinary literature – the ‘social studies of money and central banking’ – has begun precisely such an engagement.

While grounded in a thorough understanding of the economics of monetary matters, both the IPE and the CPE literatures focus on questions that are quite different from those asked by the present work. Thus, IPE – unsurprisingly, given its intellectual proximity to the discipline of International Relations – has mostly been concerned

with international monetary relations between states (Strange 1971; Block 1977; Cohen 1978; Helleiner 1994; Cohen 1998; Broz/Frieden 2001; Andrews et al. 2002; Best 2005; Oatley/Winecoff 2014).⁴ This focus is different from that of the present study, which is on the agency of one central bank in relation to its ‘domestic’ economy. A related literature, somewhat closer to the intersection of IPE and CPE, engages with “The political economy of monetary institutions”, as do the contributors to an influential volume of that title (Bernhard et al. 2003). Focusing on the preferences of competing social groups regarding the levels of the inflation and the exchange rate in particular, this literature has done much to improve our understanding of the political economy of monetary policy (Frieden 1991; Hall/Franzese 1998), including in the euro area (Hancké 2013). It does not, however, elucidate *how* the central bank establishes and exerts control over those contested variables, control being generally taken as given.

As for the specialised European studies literature on EMU and the ECB, four historical and thematic focus areas can be distinguished. The first is concerned with the political (Moravcsik 1998: ch. 6; Dyson/Featherstone 1999; Jabko 2006: ch. 8), economic (Goodman 1992; Padoa-Schioppa 2000; James 2012), and ideational (Sandholtz 1993; McNamara 1998; Marcussen 1999; Verdun 1999) processes that, over a time span of several decades, led up to the Maastricht Treaty in 1992.⁵ The political and institutional dynamics within EMU since the beginning of stage three in January 1999 – “The politics of the euro zone”, as the title of Dyson’s monograph puts it –

⁴ The exceptions are the important studies by Hall (2008) and Knafo (2013), on which more will be said towards the end of this section.

⁵ Note that the assignment of authors to one of these three categories is only intended to indicate which of the three receives particular attention in their work, not that they ignore the other two categories.

constitute a second focus area (Dyson 2000; Verdun 2002; Schelkle 2006; Enderlein/Verdun 2010). A third literature concentrates more specifically on how the ECB and the various national central banks (NCBs) function at an institutional level – what Quaglia calls “central banking governance” (Quaglia 2008; Dyson/Marcussen 2009). Finally, the ongoing institutional transformation of EMU in the wake of the financial and economic crisis has emerged as the most recent focus area (Hodson 2011; Salines et al. 2012; Schelkle 2012; Dyson 2013; Torres 2013). While making an indispensable contribution to our understanding of the initial design and subsequent evolution of the institutional architecture of EMU, these four strands of literature remain largely silent on what takes place ‘on the ground’ of actual monetary governance. Again, central bank agency and monetary governability are largely taken for granted.

Over the past decade, however, an interdisciplinary, loosely cohering literature has emerged that shares the concerns of the present study. Still nameless, it could with some sense be referred to as the ‘social studies of money and central banking’. The purpose of that label – the echo with the ‘social studies of finance’⁶ is intentional – is to set this literature apart both from economics (hence ‘social’) and from political economy and economic sociology approaches that pay little heed to either money or central banking.⁷ The seminal contribution to this literature is by sociologist Geoffrey Ingham (2004), who has done more than anyone to demonstrate that to the extent that political economy and economic sociology take each other *and* the economics of money and central banking seriously, they are well-equipped to make significant contributions to our understanding of these institutions. Indeed, the willingness and abili-

⁶ Detailed references to the ‘social studies of finance’ literature are provided in the context of discussions of performativity in chapters two and four.

⁷ For references to this economic sociology literature, see chapter five.

ty to cross disciplinary boundaries distinguishes the most insightful works on monetary governance. This is true of Greta Krippner's (2007, 2011) and Rodney Hall's (2008) studies of the transformations of US monetary policy during the 1980s and 1990s, as well as of Samuel Knafo's (2013) sweeping historical account of the genesis of liberal financial governance in Britain. Douglas Holmes' (2014) ethnographic study of the communicative strategies of various central banks has been the latest contribution to what is in the process of becoming an interdisciplinary, yet distinct and visible field of research.⁸ Broadly speaking, this field is concerned with what Knafo (2013: 5) traces back to the emergence of the gold standard in 19th century Britain, which ushered in "a new form of state power: modern monetary governance in the form of central banking". Knafo's argument that, contrary to common wisdom, the gold standard "in fact contributed to an *extension* of state power over finance" (Knafo 2013: 5, emphasis added) is thereby echoed by Krippner's finding that the evolution of US monetary policy during the 1990s "involved a shift of policy implementation to markets, but *not* a retreat from the state's role in managing the economy" (Krippner 2007: 478, cf. Hall 2008).

The monetary policy paradigm of the Great Moderation, and why it (still) matters

In order to put the discussion on a firm empirical grounding from the start, this section gives an overview of the historical and intellectual background, as well as of the essential characteristics, of the inflation targeting paradigm that came to dominate the world of monetary policy in the 1990s. Under a broad definition that includes the

⁸ Further examples include the work of Michel Aglietta (1992, 1999, 2002) and Mitchell Abolafia (2010; Abolafia/Hatmaker 2013).

ECB, inflation targeting requires the central bank to announce an official target or target range for the inflation rate and to be committed – usually by law – to treating this target as the overriding goal of monetary policy (Bernanke/Mishkin 1997: 97).⁹

Between the late 1960s and early 1980s, many industrial economies experienced high and volatile rates of inflation, often combined with stagnant GDP growth rates. The ‘Great Inflation’ of the 1970s coincided with the end of the Bretton Woods system of fixed exchange rates and capital controls in 1973, two years after the Nixon administration had abandoned the gold convertibility of the dollar. Providing the death blow to an already-ailing ‘Keynesian’ paradigm in both macroeconomic theory and policy, these developments simultaneously ushered in the New Classical revolution in economics and the neoliberal turn in politics, which together formed the basis of the policy regime of inflation targeting.

The breakdown of the Bretton Woods system meant that national economies could no longer rely on a fixed exchange rate and thus, via the gold-parity of the dollar, on gold, to stabilise their currencies. With the closing of the gold window in 1971, the world had effectively switched to a global fiat money standard. Under these conditions, there was a “need for some additional constraint on monetary policy, called a nominal anchor, to tie down the price level to a specific value at a given time” (Bernanke et al. 2001: 19). At first, this need led many countries to target monetary aggregates by controlling the growth rate of the money *supply*. Ironically, it was the

⁹ According to a more technical definition, inflation requires the central bank to target the inflation rate directly, without an intermediate target. Since the ECB has been holding on to its ‘reference value’ for money growth, it is not considered an inflation-targeting central bank in the strict sense of the term. That said, the technicalities involved in this distinction need not concern us at this point, as the remarks in this section are fully applicable to the ECB. The issue will be discussed in greater detail in chapter four.

financial deregulation under the Reagan and Thatcher governments that, by increasing volatility in the *demand* for money, unwittingly undermined these monetarist attempts at monetary targeting. By the mid-1980s, it was clear that monetary aggregates had failed as a nominal anchor for central bank policy. At that point, countries were faced with two options to anchor their currencies, exchange rate targeting or inflation targeting (Freedman/Laxton 2009: 9). Countries like New Zealand and Canada, who had switched to floating exchange rates, had no choice but to adopt inflation targeting regimes. Others, like the UK, Sweden, or Finland, unsuccessfully experimented with exchange rate targets, before also adopting inflation targeting in the first half of the 1990s.

After its introduction in New Zealand in 1990, inflation targeting soon emerged as the true successor of Keynesian demand management, and arguably attained the status of a full-blown “policy paradigm” (Hall 1993) supported by an overwhelming intellectual consensus among monetary economists (Goodfriend/King 1997; Goodfriend 2007).¹⁰ This consensus was reinforced by the experience of what came to be called the Great Moderation – a period of globally low and stable inflation and low volatility in the growth rate of GDP, which lasted from the late 1980s all the way through 2008 (Bernanke 2004). The financial and economic crisis of 2008-09, of course, dealt a serious blow both to the intellectual consensus and its most visible advocates, the central banks. The latter have since been blamed for their accommodative monetary policy stance and their neglect of asset price developments during the build-up of the

¹⁰ Of course, stable money had replaced full employment as the goal of macroeconomic policy already with the shift from Keynesianism to monetarism in the 1980s. But with the growth rate of money central banks still targeted an *intermediate variable* whose relationship with the goal variable of inflation proved unreliable (Bernanke/Mishkin 1997: 101). Inflation targeting therefore only came into its own when central banks began to target the *goal variable* – the inflation rate – directly.

crisis by orthodox (Taylor 2009, 2012), heterodox (Colander et al. 2009; Leijonhufvud 2009), and political economists (Engelen et al. 2011, 2012; Golub et al. 2014; Watson 2014a). Crucially, however, the popularity of asking whether inflation targeting is “broken”, “passé”, “inadequate”, or “dead” – as several eminent economists do in Baldwin and Reichlin (2013) – does not mean that the present study of monetary governance under inflation targeting is obsolete. In fact, the opposite is the case. The paradigm shift from Keynesian demand management to inflation targeting has gone hand-in-hand with the epicentre of state agency in relation to the economy shifting from the treasury to the central bank, and thus from fiscal policy to monetary governance. The initial, crisis-related backlash notwithstanding, recent developments have only reinforced this trend. Both the outfall from the financial crisis and the long-run trend of financialisation – understood here, as in Hardie (2012: 14), as “the increased ability to trade risk” – have caused the portfolio of central bank responsibilities to expand, in particular in the areas of bank supervision and macroprudential regulation (Baker 2013, 2014; Hellwig 2014). And while the pre-crisis policy paradigm will probably not survive unscathed, likely succession candidates such as ‘nominal GDP targeting’ (Woodford 2012), look set to further amplify the defining features of this technology of macroeconomic governance – its operation through financial markets and its inherent tendency to extend its reach ever further into the future.

As noted 30 years ago by John Zysman (1983: 298), “the structure of finance contributes to the state’s capacity to act in the economy”. Since the time of Zysman’s writing, the “structure of finance” has evolved almost beyond recognition (Hardie et al. 2013), and it is therefore not by coincidence that the diagnosis of a “finance-led growth regime” (Boyer 2000) has been followed by the diagnosis of a “central bank-

led capitalism” (Bowman et al. 2013). Under these new conditions, a great deal of politics is going on inside the black box of monetary governance. It is time for political economists to open it.

Analytical framework and theoretical concepts: Central *bank* agency, governability, performativity, audiences, and apparatuses

The present study develops an original analytical and conceptual framework to unlock this black box. It aims to provide political economists with the conceptual tools to engage directly with central bank agency and monetary governance, rather than ceding this territory entirely to economists. The framework reflects a problem-driven approach and has been assembled in three steps. My starting point was the question of macroeconomic *governability* (i) – what is the ECB’s role in rendering the euro area economy governable? From here, a close reading of the discourse and practice of monetary governance – not initially premeditated by a specific theoretical approach – suggested that any attempt to answer this question would have to account for two key features of ECB agency (ii): its hybridity, meaning that it is both a *central* bureaucratic authority and a *bank*; and its multidimensionality, in the sense that three *distinct audiences* pose three distinct governability challenges that call for three distinct modes of monetary governance. These inductive observations then determined the choice of a theoretical framework built around the notion of ‘performativity’ (iii). Within this framework, governability appears as a *performative effect* of the interactions between the central bank and its audiences; and the Foucauldian notion of ‘*apparatuses*’ captures the arrangements that govern the interactions between the ECB and its audiences.

This three-step framework is the centrepiece of the present work. It determines both the overall chapter structure and the analysis within the individual chapters. In the following, I will therefore briefly elaborate on each of its elements – the concept of governability, my inductively derived understanding of central bank agency, and the theoretical choice of the performativity approach.

The idea that governability is not a natural feature of ‘the economy’¹¹ is the theoretical premise of this thesis, in the sense that without it there would be no way of even asking the underlying research question of how the economy is rendered governable. Instead, I argue that macroeconomic governability needs to be established *both in theory and in practice*. The theoretical construction of macroeconomic governability is covered in chapter one, which offers a systematic reconstruction of the two ‘governability paradigms’ that macroeconomic discourse has so far produced – the neo-classical and the new neoclassical synthesis. As already indicated, the latter shifted the “burden of economic management” onto the shoulders of the monetary authority (Pixley 2004: 14). Here, in the realm of (monetary policy) practice, both the implementation and the transmission of monetary policy illustrate the non-triviality of monetary governability. As for *transmission*, the problem of governability arises from the gap between the “very limited and crude tools” and the “very big job” of the central bank (Hall 2008: 198) – the disconnect between the short-term interest rate, which the central bank controls, and the macroeconomic aggregates of investment, output, employment, which ultimately determine the variable most crucial to the ‘job’ of the ECB, inflation. As a result, the impact of a change in the short-term interest rate on

¹¹ The historical emergence of both the concept and the reality of ‘the economy’ is briefly discussed at the beginning of chapter one.

those macroeconomic variables is subject to ‘long and variable lags’, as the phrase goes in monetary economics (Friedman 1961). Moreover, this picture is further complicated by monetary policy *implementation*. Contrary to a widely held belief, the short-term interest rate is not, strictly speaking, the instrument of monetary policy, but its “operational target” (Bindseil 2004: 9). This is because the short-term interest rate is market-determined – it is the price that results from the interplay of supply and demand for central bank money in the money market. As the largest participant in that market and the monopoly supplier of central bank money, the ECB usually has no trouble controlling its price. However, its ability to achieve the operational target of controlling the short-term interest rates may be considerably diminished during episodes of financial stress, as the experience of the past years has shown. This brief summary of two key governability challenges – which will be elaborated in chapters three and four – shows that even though there are times when it is indeed firmly established, monetary governability is inherently fragile.

The features of central bank agency – its hybridity and multidimensionality – that are at the root of this fragility of monetary governability form the two pillars of my empirical analytical framework. The ECB’s *hybridity* makes it fundamentally different from other international or European organisations. On the one hand, the ECB is a government body that holds and exerts administrative authority in the interest (in principle) of the public good – it is the *central* bank. On the other hand – and this is where the historical origins of central banking lie – the ECB is also a *central bank*. Taking this bank-dimension of central bank agency seriously is crucial for the study of monetary governance, which generally operates not through administrative authority but through market transactions into which the central bank’s ‘counterparties’ de-

side to enter at their own discretion: “Whereas administrative authorities are setting, interpreting and applying statutory rules, most activities of central banks involve transactions on a *quid-pro-quo* basis, such as taking deposits from banks, granting loans to banks, or buying and selling assets in open markets” (Hellwig 2014: 5-6, original emphasis). Crucially, this hybridity of the ECB is neither an artefact of the euro area, nor of neoliberalism or of fiat money, but has been an essential characteristic of modern central banking for the past 200 years (Knafo 2013: ch. 6). In short, then, central bank agency acts on the economy not through administrative authority but through open market operations that involve a considerable degree of voluntarism on the part of the governed. The upshot is a conception of central bank agency as more fragile and prone to disruptions than the image of the all-powerful central banker suggests.¹²

The second pillar of the analytical framework is the *multidimensionality* of central bank agency, which arises from the fact that ‘governing the economy’ translates into dealing with three governability challenges posed by three distinct audiences. The audience of the central bank is often referred to simply as ‘the public’, or, at best, is divided into ‘financial markets’ and ‘the general public’, in order for the latter to then be mostly ignored. The present study, by contrast, is based on a distinction of three groups, which differ in their financial sophistication as well as in their role in the transmission mechanism of monetary policy. These groups are money market participants (‘super insiders’), monetary insiders in both the financial and the non-financial sectors of the economy, and monetary outsiders (households, small firms, non-fin-

¹² This image was epitomised by Bob Woodward’s (2000) hagiography of Alan Greenspan, titled “Maestro”.

cial press). Since each of these groups poses a distinct challenge for monetary governability, their interactions with the ECB are examined separately in chapters three to six.

Together with the theoretical notion of governability, the observations that central bank agency is hybrid and multidimensional set up the framework of analysis. What is still missing, however, are the theoretical tools to conceptualise the *relationship* between the central bank and its audiences. In order to do so, this study makes use of the conceptual tools developed in the sociological literature on performativity. While the rationale behind this choice is explained in detail in chapters one and two, suffice it to say that by leaving the practice of monetary governance to economists, political economists and economic sociologists have tended to focus on its institutional arrangements and links with neoliberal ideology (McNamara 2002; Polillo/Guillén 2005). While the present study shares the view that there is an important ideological dimension to the economics of central banking, it emphasises its performative nature. More specifically, I conceptualise monetary governability as a *performative effect* of the theories, discourses, and practices of monetary economics, which render the economy amenable to the hybrid agency of the central bank. Chapters one and two elaborate on this point, drawing on Foucault's notion of governmentality, Callon's work on performance, and Goffman's theory of social action as performance. Importantly, opting for the language of performativity rather than the language of ideology does not mean that the present study cannot be critical in outlook and intent. On the contrary, it is precisely because of its performative dimension that any critical engagement with monetary governance must begin by taking the discourse of monetary economics seriously. However, since the latter's building blocks – central bank 'transparency', 'cred-

ibility’, and ‘independence’ – are both “stage props” in (Goffman 1959: 13) and effects of performative acts, the crucial challenge consists of taking them seriously *without* taking them at face value.

It is precisely for the purpose of getting a conceptual grip on these two performative dimensions inherent in monetary governance that determines the choice of the final element of the theoretical framework. I employ Foucault’s (2007: 65-66, 1980: 194) notion of the “apparatus” (*dispositif*, in the French original) to refer to the arrangements that govern the interactions between the ECB and its various audiences. The concept is suitable for the purpose of the present study precisely because the apparatuses it examines comprise not only legal rules and executive powers – as in the case of purely administrative forms of authority – but also market mechanisms, economic theories, and performances. Specifically, the analysis will disaggregate central bank agency into a financial apparatus governing through money, a communicative apparatus governing through expectations, and an ideological apparatus governing through trust.

Case, data, and methodology

This thesis develops a “case-specific analytical narrative” (Jackson 2010) about monetary governance in the euro area from the beginning of stage two of EMU in 1994 through to 2014.¹³ To the extent that qualitative interview data were collected (see be-

¹³ Jackson’s discussion is useful to locate the present study within the landscape of political science methodologies. In terms of its “philosophical ontology”, or its “hook-up to the world” (Jackson 2010: 28), this work falls into the category of analyticism, the methodological hallmarks of which are ideal-typification and case-specific analytical narratives (Jackson 2010: ch. 5). The purpose of the case-specific analytical narrative is not to test certain variables for their causal significance in bringing about a specific outcome. Instead, it revolves around ideal types that “provide a set of analytical categories in terms of which empirical observations can be generated and sorted” (Jackson 2010: 154). The ideal types that structure my analytical narrative would be the three modes of performative monetary gov-

low), this effort was concentrated on two countries, Germany and Ireland. The inclusion of Germany seemed imperative due to the strong influence of the Bundesbank tradition on the design and operation of the ECB. Beyond this consideration, however, the choice of countries is not intrinsically important, as the purpose of this study is not to compare between them. Instead, I am concerned with monetary governance in the euro area as a whole, and the decision to restrict my fieldwork to two countries is based on pragmatic (i.e., logistical, financial, and linguistic) reasons in combination with the fact that interviews are only one of three data sources, as explained below.

As mentioned above, the ECB has so far been underrepresented in the social studies of money and central banking, in which the Fed has received the most attention. The wealth of qualitative data contained in the verbatim transcripts of the Federal Open Market Committee, which are published with a five-year delay, has certainly been a factor here. While the short life span of EMU may also have contributed to a greater focus on the Fed, it is the main attraction for the present study. This is because the relative youth of the ECB provides a unique window into what it takes to establish central bank agency and monetary governability *from scratch*, and to do so in a world with fiat money, cross-border capital mobility, and highly developed financial markets. The latter qualification is crucial, for although other governability-construction cases are accessible through historical study (e.g., Knafo 2013), there is only so much we can learn from monetary governance in 19th century England for monetary governance in 21st century Europe.¹⁴ Moreover, the case of EMU is of particular interest

ernance, which chapter two derives from the distinction of the three governability challenge that the ECB faces in its interactions with different audiences.

¹⁴ Needless to say, this is not the primary purpose of Knafo's brilliant study (which won the 2014 IPEG Book Prize).

precisely because it involved what Rosamond (2002: 161) has aptly described as “the negotiated manufacture of an integrated ... economic space”. Indeed, the inclusion in this study of the period from 1994 through 1998 is precisely due to the decisive role in the construction of monetary governability played by the technical preparatory works conducted and coordinated by the European Monetary Institute (EMI).

This study relies on three sources of data. The first, and most obvious, is the discourse of the Eurosystem. This discourse includes the regular and highly formalised opening remarks of the ECB president at the press conferences that follow the first of the Governing Council’s bi-monthly meetings, the public speeches of the individual members of the Executive Board, the monthly bulletin of the ECB, and, finally, the large number of research papers published by the ECB and the NCBs. This reading is supplemented by eleven anonymous, semi-structured background interviews with central bank staff at the ECB (7), the Bundesbank (1), and the Central Bank of Ireland (3).¹⁵ The second source of data is the discourse of monetary economics. What may, at first, sound like an odd use of the term ‘data’, is actually a straightforward methodological implication of the performative analytical framework that underpins this study, which understands monetary theory as a constitutive element of the practice of monetary governance, and monetary governability as a performative effect of that practice. Thirdly, this work draws on 27 semi-structured interviews with ‘monetary insiders’ *in the private sector*, who are the primary addressees of ECB communication. These interviews – 9 in Ireland and 18 in Germany – were conducted with econ-

¹⁵ The only central bank interviewee not anonymised (with his agreement) is Otmar Issing, who, as the first chief economist of the ECB, played a pivotal role in devising the monetary policy strategy of the ECB. Issing and one interview partner at the Central Bank of Ireland were retired when interviewed.

omists employed by financial institutions, trade unions, and employer organisations, and (in two cases) macroeconomic forecasting institutes. They make it possible to take into account the perspective of actors at the receiving end of central bank communication – an empirical strategy that, to the best of my knowledge, has not previously been used in the literature on monetary governance in the euro area. All interviews were semi-structured, so as to leave room for the individual background of interview partners. This was particularly relevant in the case of central bank staff, whose expertise was often highly specific, pertaining either to monetary policy implementation, or to communication, or to macroeconomic or statistical analysis. The most important determinant of the focus of interviews with private sector economists was often the age of the interview partner. Only individuals with longer professional experience were in a position to answer questions about their experience of the euro change-over and the early years of Stage 3 of EMU. A complete list of all interviews is given in Appendix 1.

In short, then, this work triangulates between the discourses of the ECB, of monetary economics, and of monetary insiders. Two caveats are in place. First, the fact that communication is an integral part of monetary governance means that central bank staff tend to speak in a very measured and cautious way, which in many cases limits the potential of interviews to produce insights that go significantly beyond what can be found in the almost limitless official documentation.¹⁶ Interviews proved very helpful, however, in pointing me towards specific issues that I had not previously been

¹⁶ This point is strikingly illustrated by Holmes' (2014) ethnographic study of central bank communication strategies. For in spite of the access the author had to policy-makers, most quotes from personal encounters closely resemble other quotes from public speeches and official documents, except for being slightly less jargon-heavy.

aware of and that I could then research further using official documents. The second caveat is that the relative weight of the three discourses varies between the apparatuses analysed in chapters three to six. Most notably, the discourse of monetary insiders features prominently in the analysis of the communicative apparatus of expectation management in chapter four, but is largely irrelevant to the analysis of the interaction between the central bank and monetary outsiders in chapter five. Instead, due to the central role played by monetary theories in the ideological apparatus, the engagement with this type of data takes up relatively more space in chapter five, which shows how monetarist concepts in particular have shaped monetary outsiders' perception of the monetary and financial system.

Contributions to the literature

Having laid out the research question, the analytical framework and theoretical approach, as well as the empirical methodology, I can now be more specific about the ways in which this work seeks to contribute to the specialist social studies of money and central banking, the literature on central banking in general (including the economic literature), and, finally, the broader political economy literature on economic governance.

Firstly, this study contributes to the social studies of money and central banking in four major ways – two empirical and two conceptual in nature. The first contribution is an exclusive focus on the euro area and the ECB – a case that has received far less attention in the social studies of money and central banking than the Fed or the Bank of England (Krippner 2007; Hall 2008; Abolafia 2010; Krippner 2011; Abolafia/Hatmaker 2013; Knafo 2013). Second, my qualitative interview data from the private sec-

tor side for the first time exploits a data source that has hitherto been neglected by students of monetary governance. Third, my emphasis on the hybridity (central vs. bank) and multidimensionality (directed towards super-insiders, insiders, outsiders) of central bank agency offers an analytical perspective that can readily be applied to other currency areas. Finally, my study takes the conceptualisation of monetary governance¹⁷ as a performative endeavour (Ingham 2004: 147-150; Holmes 2014) one step further by consistently applying the language of performativity not only to speech acts, but also to the performance of calculative behaviour and market structures (in the sense of Callon) and the theatrical performances of central bankers (in the sense of Goffman).

Secondly, my analysis yields several original insights that will contribute to the literature on central banking more generally. Thus, by tracing the evolution of the financial apparatus of monetary policy implementation from the initial preparatory works all the way to the present – something not previously done in political economy – chapter three reveals the ‘politics of collateral’ that surround the creation of (central bank) money in the euro area. The analysis of the communicative apparatus of expectation management in chapter four shows central bank ‘credibility’ and ‘transparency’ to actually rest on the successful performance, by central bankers, of ‘pretence of single-mindedness’ and ‘pretence of knowledge’ – an insight crucial to the understanding, in chapter six, of the unravelling of the communicative apparatus under the recent policy of forward guidance. Based on sociological theories of money and trust, chap-

¹⁷ At this point, the reader is prepared to see the point of the following note on terminology: This text consistently gives preference to the term ‘monetary governance’ over that of ‘monetary policy’ for two related reasons. Firstly, only the former term is broad enough to capture the efforts of the central bank to render the economy governable. Secondly, the term ‘policy’ carries a connotation of administrative authority that runs counter to the view of central *bank* agency that underpins this study.

ter five develops an original framework for the analysis of the hitherto neglected interaction between central banks and monetary outsiders. Applying this framework to the ideological apparatus of monetary trust in the euro area, it shows the successful performance of (a vastly exaggerated idea of) central bank control over the ‘quantity of money’ to be a key element of monetary trust. Finally, chapter six examines three highly topical, financial crisis-related episodes that have not yet been covered in the political economy literature – the ECB’s efforts in preparation of its own quantitative easing programme, its forward guidance, and the TARGET2 controversy in Germany – relating to the financial, communicative, and ideological apparatuses, respectively.

Finally, this study also makes an important contribution to the broader literatures on international, comparative, and European political economy. Namely, by showing how the theoretical notions of governability and performativity make central bank agency and the concrete practice of monetary governability amenable to a social-scientific perspective, it opens up new avenues for *critical* – as opposed to problem-solving (Cox 1981: 128-129) – research on this increasingly dominant form of state power. Crucially, the critical intent of this work is directed not so much towards the interest group struggles over monetary policy – which, as shown above, are well-researched – but towards the political economy implications of a central-bank centric macroeconomic policy regime as such. In other words, rather than with the political economy of the *outcomes* of monetary policy, my primary concern is with the political economy of the *practices* of monetary governance.¹⁸ It is in this sense that I seek to

¹⁸ This approach resonates with Watson’s (2007: 212) critique of IPE scholars being “generally more comfortable when passing moral judgement on the outcomes of contemporary economic processes than they are at building their critiques on the basis of understanding the substantive content of

contribute to broader debates regarding, in particular, the nature of state agency under conditions of financialisation, the extent of state control over macroeconomic outcomes, and the political economy implications of macroeconomic governance increasingly operating through – and thus depending on – financial markets.

Chapter structure

The main part of this thesis consists of two theoretical and four empirical chapters. Whereas chapter one is concerned with the construction of governability in theory, chapters three to six investigate the construction of monetary governability in practice, for the specific case of the euro area. Chapter two lays out the theoretical framework.

The first chapter elaborates on the central concept of macroeconomic governability. Delimitating the notion of ‘governability paradigms’ from Hall’s (1993) notion of “policy paradigms”, it shows that the academic discipline of macroeconomics has so far produced two such paradigms – the neoclassical synthesis paradigm of the post-war period, and the new neoclassical synthesis paradigm of the 1990s and 2000s. It shows how in both cases macroeconomic discourse went through three phases: first, the formulation of a basic vision of the economy; second, the formalisation and operationalisation of this vision; and third, the development of methods to measure, estimate, and predict associated variables.

Initiating the turn towards the analysis of governability in *practice*, chapter two begins by asking what kinds of state agency actually underpins Keynesian (fiscal) de-

the processes themselves”.

mand management and (monetary) inflation targeting. A schematic comparison along the criteria of centrality, temporality, materiality, and transparency shows that while Keynesian demand management operates in an hydraulic manner, the underlying logic of inflation targeting is performative. On that basis, the chapter introduces two sociological variants of performativity – Michel Callon’s theory of the performance of the market structures and calculative agencies envisioned by economics; and Erving Goffman’s theory of social action as (theatrical) performance. Finally, using the notion of ‘apparatuses’, and based on the distinction of three economic groups and three associated governability challenges, the chapter spells out the empirical agenda by disaggregating central bank agency into a financial, a communicative, and an ideological apparatus.

From here, the content of the empirical chapters three to six can be summarised more concisely, especially since the previous section has already summarised the main insights from these chapters. Chapter three examines the financial apparatus that governs the interaction between the ECB and money market participants (‘super-insiders’). Here, the underlying governability challenge concerns the implementation of monetary and thus central bank control over the short-term interest rate. Unlike chapters four and five, which leave financial crisis-related developments to chapter six, chapter three also covers most of the developments since 2008, for which there would not be enough space in chapter six alongside the other issues there discussed.

Chapter four examines the communicative apparatus of expectation management that governs the interaction between the ECB and monetary insiders beyond the money market – that is, above all, economists working for financial and non-financial firms, employer organisations and trade unions. Here, the underlying governability

challenge concerns the transmission of monetary policy, in particular through the so-called ‘expectations channel’. The chapter traces the evolution of the communicative apparatus up to the financial crisis, making extensive use of the interview data gathered from monetary insiders in Germany and Ireland.

As already indicated, the interaction between the ECB – or, for that matter, any central bank – and monetary outsiders is theoretically uncharted territory. As a consequence, chapter five expends considerably more space and effort than the other empirical chapters on establishing what the governability challenge posed by monetary outsiders actually is. Drawing on Ingham’s (2004) seminal work, this challenge is identified as the performative “naturalisation of money”. Since the shift to a global fiat money standard this naturalisation has played out at an ideological level, with a popularised version of monetarism playing a crucial role.

Chapters three to five show the apparatuses that perform monetary governability to be inherently fragile. Chapter six zooms in on three episodes from the recent financial crisis that show the ECB’s efforts to cope with disruptions to these apparatuses. Thus, the ECB’s attempt to perform an ‘improved’ market for asset backed securities constituted an attempt to ‘repair’ the financial apparatus of monetary policy implementation. The policy of forward guidance was designed to extend the reach of the communicative apparatus further into the future, thereby extending central bank control from short-term to long-term interest rates. Finally, the controversy that arose in Germany in 2011-12 over the TARGET2 imbalances that had accumulated between national central banks provides a unique example for the politicisation of the usually invisible

payment and settlement infrastructure, which I show to perform a key task in the naturalisation of money.

The conclusion summarises the specific findings from the empirical chapters, before returning to the question of what these findings can contribute to ongoing debates on economic governance in the broader political economy literature. Focusing on the literature on the post-crisis resilience of neo-liberalism, the conclusion shows that this literature misses out on what I emphasise is the overarching insight that follows from this study – the insight into the almost symbiotic, albeit not necessarily sustainable, mutual dependence between the financialisation of the euro area economy and the empowerment of the ECB under a central-bank centric governability paradigm.

1. The making and unmaking of governability in macroeconomic discourse

‘The economy’ is a surprisingly recent phenomenon. It appeared only in the eighteenth century, when Quesnay and his fellow Physiocrats invented the *tableau économique* and for the first time envisioned the economy as a system (Walter 2011). The process that led the Physiocrats to imagine ‘the economy’ in this way was the expansion of a scattered landscape of prices into an apparently encompassing form of social organisation. Although prices had existed before, they were “restricted to trade and finance, since only merchants and bankers used money regularly” (Polanyi 1977: 7). It was only with the commodification of land and labour (Polanyi 2001) – alongside the “penetration of foreign trade into [local] markets (Polanyi 1977: 7) – that various prices began to “show any noticeable interdependence”, thus “produc[ing] the conditions that made men accept the presence of a hitherto unrecognized substantive reality” (Polanyi 1977: 7). With the recognition of this reality in Adam Smith’s *Wealth of Nations*, “[t]he word ‘economy’ ... comes in the eighteenth century to designate a level of reality, a field of intervention” (Foucault 1991: 93). It would, however, take another 200 years for the word to acquire its contemporary meaning. Through the birth of macroeconomics in the 1930s, ‘the economy’ becomes more precisely defined as “the self-contained structure or totality of relations of production, distribution, and consumption of goods and services in a given geographical space” (Mitchell 2005: 127).¹⁹

¹⁹ According to Mitchell (who in turn quotes Schumpeter), the crucial transformation in economic thought that gave birth to both the discipline of macroeconomics and its object, the economy, consisted in the shift from the static perspective of classical economics towards a *dynamic* conception of the economy. At the beginning of the 1930s, the reality of the business cycle could no longer be denied. What

This emergence of ‘the economy’ radically alters the nature of economic policy-making. While the mercantilists may have sought to simply ‘improve the trade balance’ or ‘maintain the value of the currency’, modern policymakers are instead confronted with a complex web of interdependent economic relations. But at the same time, the discovery of the economy – and in particular, the development of a macroeconomic language – also empowers policymakers by offering ways of actively *governing* this new sphere of reality (Miller/Rose 1990: 6). Following the seminal contribution by Peter Hall (1993), these inter-linkages between macroeconomic ideas and policies have been carefully studied by economic constructivists, who have shown that any statement about and policy in relation to ‘the economy’ are based, in one way or another, on macroeconomic models (Barnett/Finnemore 2004: ch. 3; Widmaier 2004; Best/Widmaier 2006; Babb 2013). Simply put, models matter because they shape economic policymaking.

The constructivist insight is an important one, but economic models can do more than simply *influence* policy. As Michel Callon (1998b, 2007) has shown, they also *perform* the very practices that make up ‘the economy’ in the first place. Recent research has done much to illuminate the performativity of economics within finance – in a literature I will get back to in the next chapter – but so far the performativity of macroeconomics remains understudied. This needs addressing, for as in the case of financial models, macroeconomic models tend to become part of the *ideational infrastructure* of the economy – that is, they help form the basis for shared ideas of how

needed to be explained, therefore, was no longer the existence of a state of stable equilibrium, but the ups and downs in aggregate economic activity. Ragnar Frisch’s approach to explain this cyclicity by the occurrence of external shocks and their subsequent reverberations within the system – impulse and propagation – implicated a clear distinction between “the intrinsic structure” of the system and its exterior (Mitchell 2005: 132).

the economy works, which themselves then work to reduce uncertainty amongst both policymakers and market actors.²⁰ Under the policy regime of inflation targeting in particular, macroeconomic models feature prominently in the communication between central banks and financial market participants (Holmes 2014). By reducing the (perceived) uncertainty of the future, such models underpin the formation and coordination of macroeconomic expectations, which in turn form the basis for many economic decisions, such as decisions about long-term investments. As a consequence, the theoretical effort that goes into the formulation of macroeconomic models is of great significance to the economy itself.

Macroeconomic *governability* is achieved not simply by making the model an accurate representation of the economy, but also by performing the economy in ways that reshape it in the image of the model (Mann 2013: 204). The quest for governability in the “model world” (Watson 2014b) therefore does more than merely influence economic *policy*; it also has performative effects on the very *practices* that constitute the economy. It is for this reason that scholars of political economy can benefit from a deeper engagement with macroeconomic discourse, including its more arcane details.

Undertaking some first steps in this direction²¹, the present chapter begins by introducing the notion of ‘macroeconomic governability paradigms’, outlining its key elements and discussing its relationship to Hall’s notion of ‘policy paradigms’. Sections 1.2 and 1.3 then use this framework to cast a new light on the intellectual efforts

²⁰ Rodney Hall (2008: 6) passingly mentions the “neoliberal ideational infrastructure of the emerging system of monetary governance”. I suggest to use the term in a more general sense, more akin to the legal and technological infrastructures that underpin the market economy. See also MacKenzie’s (2006: 19) definition of the various ways in which economics is performative as “subsets of a more general phenomenon: the incorporation of economics into the infrastructures of markets”.

²¹ For a related study with a focus on the 2008 financial crisis, see Watson (2014b).

that have gone into the two paradigms of macroeconomic governability – namely, the (‘Keynesian’) *neoclassical synthesis paradigm* of the post-war period, and the *new neoclassical synthesis paradigm* of the 1990s and 2000s. These paradigms are shown to be the outcomes of protracted and complicated processes, which can be sub-divided into three distinct phases: first, the formulation of a basic vision of the economy; second, the formalisation and operationalisation of this vision; and third, the development of methods to measure, estimate, and predict the associated variables. Moreover, in both cases the ‘completion’ of the governability paradigm was followed by a fourth phase, characterised by over-confidence among economists and policymakers. Section 1.4 concludes by summarising the argument and by highlighting the links between the *governability* paradigm of the new neoclassical synthesis and the *policy* paradigm of inflation targeting.

1.1 Macroeconomic governability paradigms

Though prominent during the mid-1970s, the idea of ‘ungovernability’ has since fallen into disuse. This reflects the taming of inflation and return to growth that marked the 1980s and 1990s, for it was against the backdrop of an apparent terminal crisis that sociologists and political scientists first developed the term. Whether arguing from a neoconservative or neo-Marxist perspective, these scholars were concerned with the viability of capitalist democracy *as such* (cf. Crozier et al. 1975; Habermas 1975; Huntington 1975; Offe 1976). Consequently theirs was a comprehensive approach; with (un-)governability, they sought to analyse interactions and contradictions between the political, economic, and social subsystems of modern capitalism. In contrast, I use a narrower concept of governability that focuses on only one sub-system – namely, the economic. From the economist’s viewpoint, the question of governability

is not whether capitalist democracy is sustainable in the long run. The question is reduced, instead, to the problem of affecting the value of certain aggregate economic variables (targets) through the manipulation of some other variables (instruments). *Macroeconomic governability* can thus be defined as the extent to which the economy is perceived as amenable to targeted interventions by a central authority. Building on Peter Hall's (1993) idea of a 'policy paradigm', we can speak of a *governability paradigm* when a sufficiently large part of the macroeconomic discipline is in agreement over the causal relationships between instrument and target variables, as well as over the way in which the former should be used by policymakers. The specific elements that constitute a governability paradigm are introduced in greater detail in section 1.1.2 below.

1.1.1 Governability paradigms vs. policy paradigms

Given that Hall's notion of the 'policy paradigm' continues to be a crucial source of inspiration for research in political economy (Baker 2013; Blyth 2013b; Drezner/McNamara 2013), do we really need the concept of a 'governability paradigm'? Focusing on the shift in Britain from Keynesianism to monetarism, Hall was primarily concerned with the question of 'social learning' – that is, of how one policy paradigm replaces another. According to Hall (1993: 279), a policy paradigm is an "interpretive framework" that is shared widely among policymakers, and that specifies not only the goals and instruments of policy, "but also the very nature of the problems they are meant to be addressing". As in Kuhn's theory of paradigm change in the sciences, policy paradigms can be threatened by the appearance of "anomalies" (Hall 1993: 280) – the anomaly challenging the Keynesian policy paradigm during the 1970s being that

of stagflation. That said, exactly how do policy paradigms and governability paradigms differ?

Hall (1993: 284) rightly points out that “the policy prescriptions of monetarists [did not only] diverge from those of the Keynesians, they were also based on a fundamentally different conception of how the economy itself worked”. This is where the argument of the present chapter complements (rather than attacks) the policy paradigm approach. If, as two eminent economists have argued, the functioning of the economy is *not independent* from the way it is thought to function (Hahn/Solow 1995: 153), then the origins and precise nature of what Hall calls ‘conceptions of how the economy works’ are just as politically relevant as the way in which these conceptions are translated into policies. However, since the policy paradigm literature has only shown superficial interest in macroeconomics proper, we know very little about how such conceptions emerge. This neglect stems in part from a general ‘econophobia’ within political science, but it also reflects a more or less implicit conception of economic discourse as an ideological battlefield.²² On this view, competing economic models are treated as nothing more than vehicles for competing political programmes. In contrast, I argue that the discourse of macroeconomics follows a set of rules and conventions that *cannot* be reduced to ideological contestation; and that the driving principle of this discourse is a quest to build model-economies that are – at least in theory – amenable to targeted interventions. In other words, macroeconomic discourse has historically taken the form of a *quest for governability*. Moreover, this contest over models is not the same as the contests over policies that take place in the politi-

²² To the best of my knowledge, the first to use the term ‘econophobia’ in this context was Matthew Watson during the Warwick/RIPE debate on 12 May, 2008.

cal arena. For instance, the neoliberal revolution in politics could not have occurred had it not been for Phelps and Friedman's critique of the Phillip's Curve, for rational expectations, for the Lucas critique, and for the time-inconsistency argument – in brief, had it not been preceded by the New Classical revolution in macroeconomics.²³

The more fundamental argument for thinking in terms of 'governability paradigms', however, is that macroeconomics is performative. The central insight of the new performativity literature is that economics is not just an external influence on economic or political outcomes – for which it is taken in the policy paradigm literature – but rather that the economy itself is a performative effect of economics (Callon 2005: 13; MacKenzie 2009: 31). In the case of macroeconomics, models do not merely influence policy decisions; they also co-perform both the subjects that populate and the practices that constitute the economy as we know it. However, the full performative potential of macroeconomics is only realised when a consensus exists regarding both *how the economy works* and *how its dynamics can be managed or controlled*. A governability paradigm therefore designates a vision of the economy that has become part of the economy itself, enabling it to intermediate between the actions and expectations of economists, policymakers, and market participants alike.

This kind of intermediation is most vividly illustrated by the global expansion of the financial sector during the 2000s, which quite simply would have been impossible to sustain had it not been for the confidence-inspiring effects of macroeconomic models based on rational expectations and efficient financial markets (Alexander 2011: 484; Morgan 2013). Because economists are not only students but also producers of

²³ Of course, the academic success of New Classical economics was also reinforced by the success of political neo-liberalism.

expectations (Hardie/MacKenzie 2007b; Wansleben 2013), their ideas do not just influence the governance or regulation of the market, but in fact *constitute* the market. Thus, in the same way that law and the Internet form part of the legal and technological infrastructure of the economy, governability paradigms form part of its *ideational infrastructure*. As a consequence, the study of such paradigms should be integral to our study of the economy – there is, in fact, a political economy of macroeconomics.

1.1.2 Three elements of macroeconomic governability paradigms

In order for governability to be established within macroeconomic discourse, it is not enough for a set of policies to ‘work’ (or even for these policies to be perceived as working). In addition, there must be an integrated model of the economy that explains *why and how* these policies work, and this model must conform to the norms of the intellectual culture of macroeconomics as an academic discipline. In other words, *theoretical input legitimacy* is a crucial element of governability. The intellectual culture of macroeconomics today rests on a commitment to formalism (Blaug 2003), and a methodological prioritisation of forecasting over understanding (Friedman 1953). Hence, in order for a new macroeconomic approach to provide the basis for a governability paradigm, three analytically separable elements are required. The first is a pre-analytic ‘Vision’ that defines the heart or skeleton of the model (cf. Watson 2014b: 21). This notion of ‘Vision’, with a capital ‘V’, is drawn from Schumpeter, who uses it to capture the initial act of creative imagination that marks the beginning of any radical departure in economic theory:

[I]n order to be able to posit to ourselves any problems at all, we should first have to visualize a distinct set of coherent phenomena as a worthwhile object of our analytic effort. In other words, analytic effort is of necessity preceded by a pre-

analytic cognitive act that supplies the raw material for the analytic effort. In this book, this pre-analytic cognitive act will be called Vision.

(Schumpeter 1954: 38-39)

Second, this Vision must be translated into a formal model of the economy. Of course, in the sense that ‘the economy’ exists only as an abstraction, any statement about it is necessarily derived from a model. The first *formal* macroeconomic models – that is, models based on systems of mathematical equations – were devised in the late 1930s. Although their methodological foundations have changed significantly over time, macroeconomic models generally serve three distinct purposes. They provide “artificial economic systems that can serve as laboratories” (Lucas 1980: 696), they are used to produce forecasts (Bernanke/Woodford 1997), and they serve as story-telling devices (Morgan 2001). While all three functions are essential, different types of models perform differently along each of these lines, and trade-offs are inevitable.

Finally, the third element of input legitimacy in macroeconomic discourse requires that the formal model is able to fit the data in the ‘real world’. This involves both retrospective and prospective accuracy; the model must be able to both reproduce data patterns *ex post* and forecast future developments *ex ante*. Here, developments in macroeconomics are inextricably bound up with developments in econometrics. Problems such as aggregation from micro-data, identification and measurement of variables, model calibration, and model uncertainty all fall under this third requirement of empirical fit.

When all three of these requirements are met in the eyes of a representative majority of macroeconomists, a governability paradigm can be said to be operative. Apply-

ing this framework, the following two sections trace the construction of the two governability paradigms that have emerged from the neoclassical and new neoclassical syntheses in macroeconomics.

1.2 From Keynesian uncertainty to the neoclassical synthesis

After the Great Depression, several epistemological obstacles had to be overcome before the economy could be once again rendered governable. First, the classical view of the economy had to be overturned so that it could be re-envisioned as a system whose dynamics were governed by human agency. This conceptual innovation was provided by J. M. Keynes in his *General Theory* (Keynes 2007). However, due to its complexity and non-formal language, Keynes' sweeping Vision was in itself not sufficient to re-establish governability. The second phase was therefore to translate his Vision into a model that could be taught to students, communicated to policy makers, and, most importantly, formalised mathematically. This was achieved through the IS-LM-model as formulated by John Hicks and Alvin Hansen, which stripped the *General Theory* of some of its more radical elements, and thus paved the way for the so-called neoclassical synthesis. Thirdly, governability requires that a model can be used for forecasting and thus for the 'scientific' evaluation of alternative policy options. This was achieved through the econometric revolution initiated by Jan Tinbergen, Lawrence Klein, and others. The sections below trace the making of a distinctly Keynesian governability paradigm through each of these three phases.

1.2.1 Phase 1: A new vision – Keynes' General Theory

Keynes' starting point was a polemic against 'the Classics', whom he accused of blindly adhering to Say's Law and of excluding on logical grounds the possibility of

an aggregate oversupply of goods, and therefore of labour. From a classical viewpoint, an oversupply of labour will instantly be eliminated by a decline of the wage rate. Unemployment is thus by definition voluntary unemployment – a statement that, in the face of mass unemployment and poverty, could easily be declared a scandal by Keynes. In this context, his agenda for the *General Theory* was to develop a theoretically grounded explanation of and solution to persistent mass unemployment. At the core of Keynes' theoretical revolution stood the argument that “a monetary economy [...] is essentially one in which changing ideas about the future are capable of influencing the quantity of employment and not merely its direction“ (Keynes 2007: vii).²⁴ He argued that in a monetary economy with heterogeneous agents and an uncertain future, the Walrasian postulate that markets always clear needed to be abandoned. Because the future is fundamentally uncertain, investment decisions are driven by animal spirits; and in times of crisis, these animal spirits are likely to produce pessimistic expectations for the future. This in turn means that the marginal efficiency of capital decreases, and while a decrease in the nominal rate of interest could stabilise investment, this is prevented from occurring by a higher liquidity preference among investors (who shift their capital from bonds into cash). Uncertainty amongst investors therefore prevents the interest rate from falling to a level that would make investment once again appear profitable. The consequence of this is that aggregate investment fails to keep up with aggregate saving. The balancing of investment and saving therefore occurs instead through a reduction in output and employment, which brings the economy to a new equilibrium characterised by high unemployment. Keynes thus ex-

²⁴ The view that this is indeed the core argument of the *General Theory* was first advocated by Clower (1965, 1967) and Leijonhufvud (1968). The following summary is based primarily on Leijonhufvud (1967: 407) and Laidler (2008).

plains how an economy can get stuck in an inefficient equilibrium due to an *endogenous failure* of macroeconomic coordination. The government's task in such a situation is to push the economy back to its full employment equilibrium point through the fiscal stimulation of aggregate demand.

1.2.2 Phase 2: Formalisation and operationalisation – the neoclassical synthesis

The theoretical as well as political success of what came to be known as 'Keynesianism' was not the success of Keynes alone. The *General Theory* was written in highly complex prose and offered little in the way of formal models, which at first hampered its usefulness to policymakers. Keynes had done the conceptual groundwork, but there would have been no 'Keynesian' policy paradigm had it not been for John Hicks' (1937) formalised representation. His IS-LL model – which, due to Hansen (1949), would become the IS-LM model – reduced Keynes' core arguments to an *equilibrium* model of the economy, thereby eliminating the notion of uncertainty that did so much crucial explanatory work in the *General Theory*.²⁵ It was this theoretical move that launched the "Keynesian counter-revolution" (Clower 1965: 270), paving the way for a re-integration of Keynes into the classical, equilibrium-based tradition of economic thinking (a process that was dubbed the 'neoclassical synthesis' by Paul Samuelson). This theoretical consensus – which also went under the misnomers of 'Keynesianism' or 'Keynesian economics', and which prevailed until the late 1970s – was built on two partially contradictory foundations (Blanchard 2008).²⁶ On the one

²⁵ The centrality of uncertainty was emphasised by Keynes himself in his only major intervention into the debates that followed the publication of the *General Theory* (Keynes 1937).

²⁶ It is important in this context to recall Axel Leijonhufvud's distinction between "Keynesian Economics and the Economics of Keynes" in his seminal monograph of the same title (Leijonhufvud 1968). To make essentially the same distinction, Joan Robinson (1962) coined the term "bastard Keynesianism".

hand, the neoclassical synthesis substituted the classical rationality postulate for Keynes' notions of uncertainty and animal spirits (which were clearly unsuited to equilibrium modelling). On the other hand, the supposedly Keynesian element of the neoclassical synthesis was the notion of price and wage *rigidity*, whose main function within the model was to account for the empirically observed non-market-clearing outcomes. I say supposedly because all Keynes did was make the realistic assumption that price adjustment was *non-instantaneous* (Leijonhufvud 1967: 403).

1.2.3 Phase 3: Measurement and quantification – the econometric revolution

The fact that the *General Theory* offered explanations as well as remedies for economic depression and mass employment does not account fully for Keynes' impact on the discipline of macroeconomics. The other part of the story is to be found in the various ways that his conceptual framework interacted with what came to be known as the 'econometric revolution' of the interwar period. As the two main protagonists of the later New Classical revolution rightly point out, it was "the fact that Keynesian theory lent itself so readily to the formulation of explicit econometric models which accounts for the dominant scientific position it attained by the 1960s" (Lucas/Sargent 1979: 2). The main reasons for this were that Keynes' model of the economy was based on relatively few but highly aggregate variables that together formed a simple accounting identity. This spurred a series of highly fruitful interactions between theorists, accountants, and econometricians. On the one hand, accounting and econometrics made possible the measurement of those variables specified in the Keynesian identity. Although Keynes (1939) was critical of the econometric efforts of Jan Tinbergen, he co-operated closely with Richard Stone in devising accounting techniques

and practices that would advance the efforts of model-builders (Suzuki 2003). On the other hand, Keynes' identity provided the conceptual framework within which the nascent discipline of econometrics could make sense of the vast amounts of raw data that were becoming available at the time (Patinkin 1976: 1110). While Tinbergen's (1952) dynamic model of the US economy was the first of its kind, by the time of Klein and Goldberger's (1955) model, macroeconomic modelling was already firmly anchored within the policymaking process. These new structural models expressed relationships between macroeconomic variables through a multitude of simultaneous equations, which for the first time made possible econometric forecasts about the outcomes of alternative policy options.

1.2.4 'Keynesian' governability and overconfidence

Together, these three phases imbued Keynesian economics with the scientific legitimacy that was required for the neoclassical synthesis to evolve into a widely accepted governability paradigm. This gave rise to a characteristic optimism among economists regarding the predictive power of the new macroeconomic models and, by implication, the possibilities of the associated economic policy paradigm of fiscal stabilisation. As Klein (1966: 180) put it, "[t]here is no reason why intelligent economic planning cannot be of just the correct amount, that amount which gives permanent full employment and stable prices". Similarly, Tinbergen (1952) suggested that optimal policy choice was a problem that could be solved with mathematical precision.²⁷ The sense that aggregate outcomes were attainable at will was further reinforced as the

²⁷ Interestingly, Keynes was critical of Tinbergen's modelling approach precisely because of the latter's use of time-invariant coefficients, and thus his discarding of the problem of uncertainty (Keynes, 1939).

Phillips Curve – which neither Phillips (1958) nor Samuelson and Solow (1960) had originally presented as a policy tool – came to be understood as a choice menu from which policymakers could pick their preferred combination of inflation rate and unemployment rate.

This remarkable degree of confidence among economists went hand in hand with the unprecedented economic prosperity of capitalism’s ‘Golden Age’. To be sure, some authors argued that the post-war boom was a result of contingent historical factors, such as the scarcity of labour relative to capital and a cyclical boom in investment (Matthews 1968). Yet most Keynesian economists and policymakers saw a connection between high growth rates and continuing full employment on the one hand, and their own efforts to manage the economy on the other. The 1960s thus became a decade not only of great confidence, but also of *over*-confidence among macroeconomists. As Walter Heller put it at the time:

The promise of modern economic policy, managed with an eye to maintaining prosperity, subduing inflation, and raising the quality of life, is indeed great. And although we have made no startling conceptual breakthroughs in economics in recent years, we have, more effectively than ever before, harnessed the existing economics – the economics that has been taught in the nation’s college classrooms for some twenty years – to the purposes of prosperity, stability, and growth.

(Heller 1966: 116)

Over the years, Keynesian overconfidence became so notorious that the literature abounds with derogatory terms. While in recent times prominent Keynes-sympathisers have talked about “vulgar Keynesianism” (Krugman 1999) and a “wave of Keynesian hubris” during the 1960s (Skidelsky 2009), the most incisive phrase was coined by Alan Coddington (1976: 1263-1264), who labelled the “fiscalist’ policy enthusiasm” of the era as “hydraulic Keynesianism”. For hydraulic Keynesians, the economy consisted of a number of aggregates whose interaction was determined by a limited

set of stable relationships. That is, they envisioned the economy “in terms of disembodied and homogeneous flows” (1976: 1264); a scaled-up version of the literally hydraulic model of the economy built by Phillips between 1949 and 1950 (cf. Phillips 1950; Morgan/Boumans 2004).

To conclude this section it is worth emphasising that Keynesian overconfidence occurred in spite of the fact that the theoretical foundations of the Keynesian governability paradigm were seriously flawed.²⁸ As shown above, the neoclassical synthesis ignored uncertainty and replaced it with the *ad hoc* assumption of price rigidities in order to reconcile (classical) individual rationality at the micro-level with non-market clearing at the macro-level. From the start, therefore, the neoclassical synthesis suffered from inconsistent micro-foundations. According to Olivier Blanchard (2008: unpaginated), “[t]he ‘fundamental flaw’ was the asymmetric treatment of agents as being highly rational and of markets as being inefficient in adjusting wages and prices to their appropriate levels”. Because it had abandoned uncertainty as an explanation for the volatility of investment and output, the Keynesian models of the post-war period depended on the *ad hoc* assumption of price rigidities in order to be able to explain the persistence of unemployment in an otherwise Walrasian economy.

The contradictory theoretical foundation of the neoclassical synthesis is more than an anecdote for historians of economic thought, for it has at least two significant implications. First, it casts doubt on Peter Hall’s (1993: 279) statement that during the post-war period “British policy was based on a highly coherent system of ideas associated with John Maynard Keynes” – which by virtue of the influence of Hall’s contri-

²⁸ For detailed discussions of the contradictions of the neoclassical synthesis see Milonakis and Fine (2009: 268-294) and Weeks (2012).

bution – has become firmly entrenched in the policy paradigm literature. This suggests that an analytical distinction should be made between policy paradigms and governability paradigms, and that a separate investigation of the latter can yield important insights. Second, the social fact of economic governability is independent from the logical or mathematical validity of the underlying analytical framework. Policy success – such as the hitting of certain macroeconomic targets – is not predicated on the theoretical soundness of the underlying paradigm of governability. Instead, once established, a paradigm of governability contributes to its own success in a performative way by helping to align expectations in the economy. If both policy makers and policy takers believe in the effectiveness of, say, countercyclical fiscal stabilisation policies, such policies are more likely to bring about the desired outcome. In brief, the model is ‘correct’ if enough people believe that the model is correct.

1.3 From New Classical ungovernability to the new neoclassical synthesis

In a text that became the manifesto of the New Classical revolution, Robert Lucas and Thomas Sargent – who otherwise are unrelenting in their criticism of Keynes – give a prescient account of how, on the basis of the *General Theory*, a governability paradigm had been constructed:

The Keynesian Revolution was, in the form in which it succeeded in the United States, a revolution in method. This was not Keynes’ (1936) intent, nor is it the view of all of his most eminent followers. Yet if one does not view the revolution in this way, it is impossible to account for some of its most important features: the evolution of macroeconomics into a quantitative, *scientific* discipline, the development of explicit statistical descriptions of economic behavior, the increasing reliance of government officials on technical economic expertise, and the introduction of the use of mathematical control theory to manage an economy.

(Lucas/Sargent 1979: 50)

In light of this evaluation, the overall dynamic of the new classical revolution and the subsequent new neoclassical synthesis show striking similarities with the Keynesian revolution and neoclassical synthesis. First, as will be shown below, the former was also primarily a ‘revolution in method’. Second, a new governability paradigm was achieved only when price rigidities were re-introduced into the model. The original New Classical model implied that the economy was essentially ungovernable – in the best case, interventions by the government would be ineffective. It was only when ‘New Keynesian’ price rigidities were re-introduced into the New Classical model that the economy became amenable to monetary stabilisation policy. Finally, the new governability paradigm evolved through the same three phases that marked the making of Keynesian governability – that is, the emergence of a contending economic Vision, the formalisation and operationalisation of this Vision, and an achievement of ‘empirical fit’ through the use of new econometric techniques. The sections below trace the making of a new neoclassical governability paradigm through each of these three phases.

1.3.1 Phase 1: A new Vision – microfounded general equilibrium macroeconomics

As noted in the introduction, it was Edmund Phelps (1967) and Milton Friedman (1968) who, by correctly predicting stagflation, provided the first nail in the coffin in which Keynesianism would be officially buried a decade later. Although Friedman’s position in particular was highly influential in the context of the monetarist/neoliberal turn, the focus of the present account is on a longer-term process – namely, the construction of what here is called the new neoclassical synthesis governability paradigm.

In this account, Lucas, rational expectations, mathematics, and microeconomics trump Friedman, adaptive expectations, history, and macroeconomics.

Given that the neoclassical synthesis had already re-integrated Keynesian and Walrasian thinking, the game-changing aspect of the New Classical programme was methodological in nature – its insistence that, just like microeconomics, macroeconomics needed to be based on individual behaviour. Lucas and his followers claimed to provide a ‘micro-foundation’ for macroeconomics, hoping that “the term ‘macro-economic’ will simply disappear from use” (Lucas 1987: 107-108). Although the notion of micro-foundations was not new at the time, the Lucas critique was widely regarded as a definitive rebuttal of any kind of macroeconomic model that was not based on individual optimisation behaviour. Lucas (1976) had criticised Keynesian macroeconomic models for their use of behavioural equations whose coefficients were constant across different states of the environment. In order to predict the *changes* in these coefficients in reaction to policy changes, not only actors’ current decision rules must be known, but also their underlying *objective functions* (Lucas 1977: 12; Sargent 1982: 383). Consequently, a macroeconomic model can only be used to evaluate alternative policy options if its equations are based exclusively on the preferences and technologies of individual economic actors (households and firms). Only then can the *structural* parameters (*i.e.*, those not sensitive to policy changes) of the model be determined.²⁹

²⁹ The question of why Lucas’ critique was regarded as a revolutionary contribution and soon became ‘the Lucas critique’ is an intriguing one. Lucas directed his critique at Tinbergen’s “theory of economic policy” (1976: 20-21). But (as noted above) it was Keynes himself who first criticized Tinbergen for using time-invariant coefficients (Keynes 1939; Schlicht 2006). Even before that, Hicks (1936: 41) had pointed out that policy changes could cause shifts in expectations.

Given their methodological insistence on the priority of microeconomics, what were Lucas and Sargent's micro-foundations? In their critique of Keynesian macroeconomics, they argued that in theoretical terms Keynes had been wrong on two counts:

[H]e thought explaining the characteristics of business cycles was impossible within the discipline imposed by classical economic theory, a discipline imposed by its insistence on adherence to the two postulates (a) that markets clear and (b) that agents act in their own self-interest.

(Lucas/Sargent 1979: 55)

Lucas and Sargent saw Keynes' dismissal of these microeconomic axioms as an illegitimate shortcut on the way to a macroeconomic model that would be able to account for the business cycle. In contrast, the New Classical programme was built on precisely these two fundamental axioms – always-clearing markets, and individuals as consistent and successful optimisers (Hoover 1984). Importantly, the latter implies that individual expectations of the future cannot be systematically wrong. One convenient way to model this is through rational – *i.e.*, model-consistent – expectations (Muth 1961; Lucas 1972, 1976).

The real business cycle (RBC) models that were built from this Vision represent the economy as a self-equilibrating system populated by rational individuals with perfect foresight. Based on the neoclassical growth model, they are called *real* business cycle models because they regard cyclical fluctuations in aggregate economic activity as (a) caused by *real* (as opposed to nominal) shocks – that is, by changes in technology; and (b) as *efficient* adjustment movements of a system that is always in equilibrium. The main policy implication is “that costly efforts at stabilization are likely to be counterproductive” (Prescott 1986: 21):

By seeking an equilibrium account of business cycles, one accepts in advance rather severe limitations on the scope of governmental countercyclical policy which might be rationalized by the theory.

(Lucas 1977: 25)

[I]nvoking this kind of complete rationality seems to rule out normative economics completely by, in effect, ruling out freedom for the policymaker.

(Sargent/Wallace 1976: 181)

Thus, the major New Classical finding with regard to economic policy was that of ‘policy ineffectiveness’. On the one hand, countercyclical monetary policy cannot have any real effects, as it is neutralised by rational actors who instantly adapt wages and prices (Lucas 1972; Lucas/Sargent 1979: 55). All the government can therefore hope to achieve is to control inflation.³⁰ On the other hand, fiscal policy is also rendered impotent because rational expectations imply that the representative consumer in the model anticipates correctly that a lower tax rate today will require a higher tax rate tomorrow. Instead of spending it, they therefore save the additional income generated by the government’s deficit spending in order to cope with the future tax burden, and real output remains the same as before. This is what Robert Barro (1974) termed ‘Ricardian equivalence’. Hence, the economy as seen through an early New Classical lens was fundamentally ungovernable.

1.3.2 Phase 2: Formalisation and operationalisation – price rigidity, again

Like Keynes’ radicalism half a century earlier, the radicalism of the New Classical revolution was mitigated over time. History seemed to repeat itself during the 1990s when New Classical and New Keynesian approaches merged into what has come to

³⁰ This is a tricky task, too, due to the time inconsistency problem faced by the government, which itself is conceptualised as a rational vote-maximiser (Barro and Gordon, 1983).

be called the ‘new neoclassical’ or ‘New Keynesian’ synthesis.³¹ The various strands within the New Keynesian countermovement to the New Classical revolution shared the goal of using nominal price rigidities to provide a microeconomic foundation for the Keynesian notion of incomplete market clearance (cf. Mankiw 1990). While in terms of methodology the notion of ‘synthesis’ is misleading – there is virtually nothing ‘Keynesian’ about the New Classical methodological basis of the new consensus model (Woodford 2009: 269) – from a governability perspective the re-introduction of price rigidities into the New Classical model was absolutely crucial. This is because these rigidities provided a theoretical rationale for the use of monetary policy in short-term demand management. On the one hand, frictions are responsible for the failure of the economy to return instantaneously to equilibrium after an exogenous shock. On the other hand, it is due to these very frictions that monetary policy can have real effects at all, at least in the short run. As Clarida (1999: 1662) puts it: “[T]emporary nominal price rigidities provide the key friction that gives rise to non-neutral effects of monetary policy”. Thus, its New Keynesian elements notwithstanding, current macroeconomic theory has not gone back to Keynes’ notion of *endogenous* coordination failure. Instead, it justifies the need for an activist central bank on the grounds of conventional market failure: If price adjustment were immediate, the economy would always be in equilibrium and there would be no need for monetary policy at all.

In the standard model of the new neoclassical synthesis, central bank behaviour is modelled through the so-called Taylor rule – a quadratic loss function that contains

³¹. In the macroeconomic literature both labels are common, depending on how the author in question self-identifies. The term ‘new neoclassical synthesis’ was coined by Goodfriend and King (1997), whereas the label ‘New Keynesian synthesis’ is usually traced back to Clarida et al. (1999). The canonical formulation of the new synthesis model is due to Woodford (2003). For a critique of the appropriateness of the label ‘new neoclassical synthesis’, see De Vroey and Duarte (2013).

the deviation of the inflation rate from the central bank's target rate as well as the deviation of current output from its 'natural' level (Taylor 1993). This latter term – the so-called output gap – is equivalent to the deviation of the unemployment rate from its 'natural' level. The prioritisation by most central banks of inflation control over employment finds its expression in a higher weight for the inflation term in the Taylor rule.³² Michael Woodford (2003: ch. 6) provided the canonical formulation of the new neoclassical synthesis model. His central contribution was a formal proof that the trade-off between output stabilisation and inflation control in the reaction function of the central bank could actually be derived as the optimal solution of the representative household's utility maximisation problem (Woodford, 2003, Ch. 6). In other words, a society maximises its welfare if, and only if, the central bank controls inflation and stabilises output. By showing mathematically that inflation targeting not only worked but in fact was – under certain (heroic) assumptions – the *optimal* policy, Woodford's contribution was crucial for the disciplinary legitimacy of the emerging governability paradigm.

1.3.3 Phase 3: Empirical modelling – the promises and limitations of DSGE

The New Classical revolution went hand in hand with a new modelling agenda. Econometric models of the Keynesian era were based on relationships between aggregates that were represented in a large number of simultaneous equations. The Lucas critique derided these models as inappropriate since they posit coefficients for behav-

³² The problem of unemployment played only a minor role in pre-2008 DSGE models, which assumed away heterogeneity (of households), so that the risk of unemployment was equally distributed across all households (Wren-Lewis 2007). Moreover, the target function that was shown by Woodford to be welfare maximising implied that deviations in either direction were unwelcome – regardless of whether they were towards unemployment above or below the natural rate (Arestis/Sawyer 2008).

our that are constant over time and irresponsive to policy changes. In contrast, real business cycle models were built on the dynamic optimisation behaviour of individuals with rational expectations. Dynamic stochastic general equilibrium (DSGE) models earned their name because they are a stochastic version of the older real business cycle models. Like those, they are micro-founded in the sense that they are entirely built on the inter-temporal (hence ‘dynamic’) maximisation behaviour of rational individuals with rational expectations. Their ‘general equilibrium’ nature means that prices and interest rates adjust to the point where supply equals demand in every market (Dotsey 2013: 11). Their New Keynesian element lies in the integration of money (as a means of payment), monopolistic competition, and nominal rigidities (Galí/Gertler 2007).³³ Through the explicit modelling of such ‘imperfections’, and through econometric methods like Bayesian estimation, modern DSGE models succeed in combining ‘microfoundations’ with an empirical fit that is comparable to large-scale econometric models (Del Negro/Schorfheide 2012). Over the past decade, central banks all over the world have started to use DSGE models for forecasting and policy evaluation purposes (Kocherlakota 2010: 4).

One of the main advantages of DSGE models in comparison with large-scale econometric models is that their outputs can be directly interpreted and discussed in terms of economic theory (Dotsey 2013: 11). Although the forecasting performance of vector auto-regression models may in many cases exceed that of DSGE models, their purely data-driven nature makes it impossible to interpret their output in theoretical terms. Therefore, in spite of their enormous complexity and shortcomings, macro-

³³. While it should be noted that RBC models of the Kydland/Prescott (1982) type are also DSGE models, the distinguishing feature of New Keynesian DSGE models is the inclusion of certain frictions and rigidities.

economists and policymakers welcomed DSGE models precisely because they offered a way to combine general equilibrium modelling with economic intuition and experience.

We thus see that, as in the case of Keynesianism, it took more than a theoretical revolution to (re-)construct macroeconomic governability. Initially, the New Classical revolution had devastating implications for governability. By adding nominal rigidities to an otherwise Walrasian model of general equilibrium, the New Keynesians put governability back on the table. Taken together these two developments provided a theoretical rationale for the emerging policy regime of inflation targeting. Finally, central banks' adoption of DSGE models for policy purposes in the mid-2000s completed the new neoclassical governability paradigm.

1.3.4 New neoclassical governability and overconfidence

As shown above, the establishment of the new neoclassical governability paradigm followed a pattern that closely resembled the intellectual evolution of the neoclassical synthesis paradigm half a century earlier. And the parallels do not end there – just as its predecessor, the new governability paradigm produced a wave of overconfidence among both economists and policymakers. This is epitomised in the now infamous sentence with which the single most influential macroeconomist since Keynes, Robert Lucas, began his 2003 presidential address to the American Economic Association:

Macroeconomics was born as a distinct field in the 1940's, as a part of the intellectual response to the Great Depression. The term then referred to the body of knowledge and expertise that we hoped would prevent the recurrence of that economic disaster. My thesis ... is that macroeconomics in this original sense has succeeded: Its central problem of depression prevention has been solved, for all practical purposes, and has in fact been solved for many decades.

(Lucas 2003: 1)

This optimism regarding the ability of policymakers (especially at central banks) to control the business cycle resulted from the experience of the so-called Great Moderation (Woodford 2009). The term refers to a period of low volatility in the growth rate of GDP combined with exceptionally low inflation rates that began during the late 1980s and lasted until the onset of the global financial crisis in 2007. Again, as in the case of Keynesianism, it is an open question whether this was due to “Good policies, good practices, or good luck” (Ahmed et al. 2004: 824). While some studies emphasised good luck in the form of weaker exogenous structural shocks (Stock/Watson 2003), others argued that better macroeconomic models had put central banks in a position to effectively smooth out the business cycle through monetary policy (Clarida et al. 2000; Bernanke 2004). The debate was never settled, but most macroeconomists and policymakers came to share a sense of optimism that strongly resembles the enthusiasm that pervaded academic and policy circles during the ‘Golden Age’ of capitalism under Keynesian governability. Thus, at a colloquium of the European Central Bank in late 2006, Carl Walsh (2007: 142) suggested that the interaction between monetary theory and monetary practice might be in “its healthiest state in the last forty years”. Interestingly, this optimism did not vanish with the onset of the global financial crisis, as the following quote illustrates:

We are once again in exciting times for macro modellers: a new breed of policy analysis model is entering central banking. Cutting-edge central banks are again beginning to analyze monetary policy as an optimal control problem within those models. For the first time since the mistakes of the 1970s, *science* is gaining ground in discussions of the art and science of monetary policymaking.

(Faust 2009: 46)

It was on the basis of such statements that, in aftermath of the 2008 crisis, economists and political economists have diagnosed a genuinely unhealthy “pretense-of-

knowledge syndrome” (Caballero 2010), or a “Great Complacency” (Engelen et al. 2011), among monetary theorists and policymakers. While there can be no doubt that technocratic overconfidence was widespread during the pre-crisis period, chapter four will argue that this may, to a certain degree, be an inevitable feature of the governability paradigm within which the decisive role is played by expectations of the future.

1.4 Conclusion

When political economists talk about macroeconomics, they usually focus on the translation of economic ideas into ‘policy paradigms’ – a process in which political interests are typically granted precedence over the arcane nuances of macroeconomic discourse. In contrast, this chapter argues that such nuances deserve to be taken seriously by political economy scholars. This is because – as will be argued below and in the next chapter – beyond influencing *policy* outcomes, macroeconomics also has performative effects on the very *subjects and practices* that make up ‘the economy’ itself. Advocating a conception of macroeconomic discourse as a quest to establish governability within the model, the chapter has shown that history’s two governability paradigms have been the outcome of a three-phase process, entailing: (1) the formulation of a Vision of the economy; (2) the formalisation and operationalisation of this Vision; and (3) the development of technically manageable models that ‘fit the data’. Once ‘assembled’, the governability paradigms of both the neoclassical and the new neoclassical synthesis inspired a sense of stability and control that ultimately proved illusory. By revealing the labours it has cost macroeconomists (twice) to get to the point where one can reasonably speak of a paradigm, the preceding analysis has

shown that macroeconomic governability cannot be taken for granted *even in theory*, for it is in fact the outcome of a long and complex historical process.

The following chapter begins by examining the nature of state agency that underpins the *policy* paradigm of inflation targeting. The brief overview in the introduction highlighted only the economic context, depicting inflation targeting “as a practical solution to their previous experiences with high inflation and boom-bust cycles” (Freedman/Laxton 2009: 14). However, it is also true that inflation targeting was built upon – and would not have been thinkable without – the *governability* paradigm of the new neoclassical synthesis. On the basis of the present chapter’s reconstruction of that paradigm, this background can now be easily recounted. As noted by Mervyn King, the former governor of the Bank of England, it was an “intellectual revolution, associated with the names of Friedman, Phelps and Lucas ... [that] formed the foundations of inflation targeting” (King 2012b: 3, see also Bernanke/Mishkin 1997: 104; Freedman/Laxton 2009: 13). The beginning of this revolution is generally associated with Edmunds Phelps (1967) and Milton Friedman’s (1968) Phillips curve critique, which denied the existence of a long-run trade-off between unemployment and inflation.³⁴ However, since there *was* a positive long-term relationship between the money supply and inflation, the best the government could hope to achieve was to control the inflation rate – ideally, according to Friedman’s (1968) famous suggestion, through a strict monetary growth target. The Phelps-Friedman critique of the Phillips curve paved the way for rational expectations and the Lucas critique (Lucas 1972, 1976), which marked the beginning of a new paradigm in macroeconomic theory. The ratio-

³⁴ For a critique of the notion that the stagflation of the 1970s represented an empirical falsification of the Phillips curve, see Forder (2010).

nal expectations view, in turn, inspired the most immediate intellectual justification for inflation targeting by independent central banks, the so-called time-inconsistency problem (Kydland/Prescott 1977; Barro/Gordon 1983b, see Watson 2007: 68-79 for a discussion). Assuming the government to act as a rational vote-maximiser, Kydland and Prescott diagnosed an inherent inflation bias of the incumbent government prior to elections. According to their model, the promise to maintain a low inflation rate is inconsistent – if the government implicitly targets an unemployment rate that lies below the ‘natural rate of unemployment’, it is rational for the government to renege on its promise and to ease monetary conditions unannounced at some point before the election. In an economy with nominal rigidities, the surprise inflation thus created enables the government to exploit the short-run Phillips curve to temporarily push unemployment below the natural rate. Since rational expectations imply that economic actors foresee this dynamic, the outcome is higher inflation at the same (natural) rate of unemployment. The policy implication of this time-inconsistency model was that inflation control was predicated on the pre-commitment and credibility of the central bank. These intellectual developments had a strong influence on the institutional design of actual inflation targeting regimes, which are unanimously built around the “trinity” of a legal mandate for price stability, central bank independence, and accountability (Svensson 2011: 1238).³⁵

³⁵ It should be noted that the assumption that central banks displayed a historical inflation bias, on which Kydland and Prescott built their argument, was empirically unvalidated. As Winkler (2003) points out, the literature on central bank transparency unquestioningly accepted the idea of ‘inflation bias’, ignoring the possibility that a social norm might exist among central bankers that ruled out surprise inflation as illegitimate.

2. Toward a performative theory of central bank agency and monetary governance

In order to gain a critical position vis-a-vis a set of technocratic practices and discourses, it is crucial to first master the language of the ‘initiated’. In the case at hand, this requires fluency in monetary economics. While the frequent and detailed discussions of “problem-solving” economics in the following pages may, at times, seem tedious, this in-depth engagement provides the indispensable intellectual foundation for the re-translation of the practices and discourses of monetary governance into the language of “critical” social science (Cox 1981: 128-129). Even equipped with such fluency, however, making monetary governance accessible and amenable to a critical social analysis remains a difficult task, as it requires a tightrope walk of taking the theories, discourses and practices of central banking seriously without actually taking them at face value. This is because these theories, discourses and practices are performative in two different ways.³⁶ On the one hand, central banking is performative in the transitive sense in which Michel Callon has used the concept – it performs certain cognitive, behavioural, or institutional structures that stem, in one way or another, from the discourse of economics. On the other hand, central banking is performative in the intransitive sense in which Erving Goffman has used the concept – central banks perform theatrically, acting out scripts based on theories about what constitutes

³⁶ Monetary economics itself has steadily moved from a representational to a performative way of theorising. It did so, however, largely unwittingly, without conceptualising the performative feedback loops between the economy and the (supposedly) representational devices of economic theories and models.

best central bank practice, and catering their performances to its various audiences. Crucially, the core elements of the discourse and practice of monetary governance – central bank ‘transparency’, ‘credibility’, and ‘independence’ – are both “stage props” (Goffman 1959: 13) in and effects of these performances, which is why it is key to take them seriously without taking them at face value.

The purpose of the present chapter is to formulate a framework for the analysis of central bank agency and monetary governability that lives up to this challenge. The argument will proceed in five steps. Section 2.1 describes the transformation of state agency in four key dimensions – temporality, centrality, materiality, and transparency – in the context of the transition from Keynesian demand management to the contemporary inflation targeting paradigm. It shows that in contrast to the ‘hydraulic’ nature of Keynesian demand management, the futurity of expectation management makes inflation targeting an inherently performative form of macroeconomic governance. Section 2.2 uses Michel Foucault’s writings on the population and the economy to show how governability in *theory* and governability in *practice* are linked in a very specific way in the New Classical macroeconomics, which has been shown above to constitute the foundation both of the governability paradigm of the new neo-classical synthesis and of the policy paradigm of inflation targeting. The section then goes on to show how the hybridity of central bank agency calls for a combination of the complementary approaches of the later Foucault and the later Callon. Section 2.3 discusses two forms of performativity. Introducing Callon’s work on the performativity of economics, I reject the notion of performativity being primarily about economics somehow ‘becoming true’, arguing instead that the analytical challenge posed by Callon is to identify and analyse the mechanisms through which calculative agencies

and market structures are performed. Secondly, I emphasise the importance to monetary governance of a different form of performativity – Erving Goffman’s theatrical performances. Section 2.4 paves the way for the operationalisation of this performativity approach to the study of monetary governance in the euro area by developing a multidimensional conception of monetary governability, and thus of central bank agency. It does so by disaggregating ‘the public’ with which the ECB interacts into three groups – the money market (or super-insiders), insiders, and outsiders. These groups are distinguished both by their financial sophistication and by their role in the transmission mechanism of monetary policy, and are therefore, as shown in section 2.5, governed by three different ‘apparatuses’. The money market is governed through a *financial apparatus* that organises the demand for and the supply of central bank money, the interplay of which determines the short-term interest rate. Insiders – financial and non-financial firms, and the social partners – are governed by an *communicative apparatus* designed to perform ‘rational’ expectation formation in the economy. Finally, the hallmark of governability for monetary outsiders (i.e., households) is their trust in the money they use, in the banking system that issues that money, and in the central bank that backs it. Monetary trust is governed through a separate *ideological apparatus*. This distinction underpins the division of the empirical part of this thesis into four chapters that are dedicated to the analysis of the financial, communicative, and ideological apparatuses, respectively (chapter four returning to all three in the context of the financial crisis).

2.1 State agency in relation to the economy: From mechanical engineering to performative governance

Based on the discussion of the associated *governability* paradigm in the previous chapter, this section formulates an ideal typical model of central bank agency under the *policy* paradigm of inflation targeting, the key features of which have been described in the introduction. The analysis proceeds via a comparison with the only fully realised previous macroeconomic policy paradigm – postwar-era ‘Keynesian’ demand management.³⁷ The most visible aspect of the transition from demand management to inflation targeting was the shift of “the burden of economic management” from fiscal to monetary policy (Pixley 2004: 14). However, as illustrated in Table 1, this obvious shift was accompanied by equally significant changes in the temporality, centrality, materiality, and transparency of the macroeconomic agency of the state. Overall, these changes amounted to a *gestalt* switch of macroeconomic agency from ‘mechanical engineering’ to ‘performative governance’.

Table 1: Two policy paradigms, two models of macroeconomic state agency

	Keynesian demand management (fiscal policy)	Inflation targeting (monetary policy)
Centrality	Centralised: government	Decentralised: interbank market, households, and firms
Temporality	Reactive (based on past data)	Proactive (based on forecasts)
Materiality	Primarily material (aggregate spending)	Primarily ideational (expectations)
Transparency	Strategic secrecy	Strategic transparency
Gestalt	Hydraulic governance/mechanical engineering	Performative governance

³⁷ For an excellent discussion of ‘Keynesianism’ that places a particular emphasis on Keynesian policy rather than theory, see Clift and Tomlinson (2007: 49-52).

Centrality: Under Keynesian demand management, the government influenced the economy by increasing demand and employment *directly* through the purchase of goods and services with borrowed money. In contrast to this centralised form of macroeconomic agency, the model of inflation targeting involves the decentralisation of macroeconomic agency. In theoretical terms, this decentralisation is a corollary of New Classical ‘microfoundations’ and rational expectations, which imply that any short term gain from fiscal stabilisation policy reduces private consumption and investment because rational economic subjects discount the higher future tax burden. Any attempts by the state to manipulate *quantities* are thus neutralised. The only way for the state can have leverage over the economy is by setting incentives – i.e., prices – for economic subjects to behave in certain ways. However, central banks usually have direct control only over the overnight interest rate at which banks borrow and deposit money at the central bank, and thus, indirectly, over short-term money market rates more generally. But aggregate (investment) demand (and, by implication, resource utilisation and future inflation) depend on *long-term* interest rates, which are generally determined by market forces. This disconnect between the central bank’s instrument and its goal variable essentially shifts the *locus of macroeconomic agency* from the state to financial markets, non-financial firms, and households (Hall 2008: 197). This decentralisation of agency implies that the governability of the economy depends to a greater extent on the successful performance of governable economic subjects and institutions.

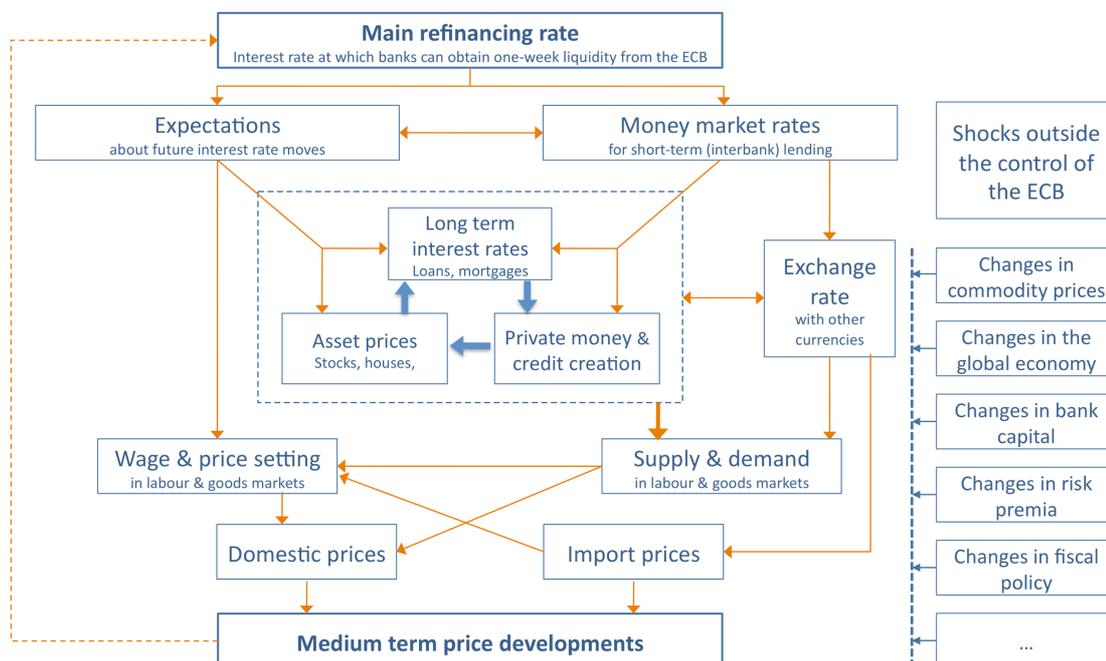
Temporality: The macroeconomic paradigm of ‘Keynesian’ demand management was reactive in the sense that policy interventions were guided by past economic data. From a New Classical perspective, on the other hand, short-term stabilisation

measures are neutralised by rational actors who fully anticipate their long-term consequences. The notion of rational expectations thus shifts the focal point around which macroeconomic coordination can be achieved *into the future*.³⁸ Moreover, at the level of concrete practices, the future-orientation of monetary policy is due to the fact that central banks only directly control the short-term interest rate in the money market, whereas the intermediate variables that monetary policy relies on in order to control aggregate economic activity and the inflation rate are long-term interest rates, the exchange rate, and asset prices (Fracasso et al. 2003: 4). The present value of these variables reflects expectations about future economic conditions, which include, crucially, the future path of the short-term interest rate set by the central bank (Woodford 2003: 16). Therefore, the impact of a change in the short-term interest rate on the future inflation rate hinges entirely on whether expectations held by private economic actors regarding the future path of the policy rate are consistent with the inflation target.³⁹

³⁸ For a discussion of the ways in which financial innovation has led to an ever greater presence of the future in economic decision making, see Esposito (2011).

³⁹ Moreover, the second reason why “monetary policy is more effective if it is guided by forecasts” (Svensson 2011: 1239) is that there is a time lag between a change in the instrument variable (the short term interest rate) and its impact on the target variables (resource utilisation and inflation).

Figure 1: The transmission mechanism of monetary policy in the euro area



Source: Adapted from ECB 2014e.

Materiality: The fundamental question for monetary theorists and policy-makers is how central bank interventions at the short end of the yield curve translate into changes in aggregate economic activity – that is, how changes in the short-term inter-bank interest rate work their way through the economy to affect long-term interest rates, asset prices, and the exchange rate, and thereby output, employment, and ultimately future inflation rates. The technical term to describe the responsiveness of the economy to central bank interventions is that of the transmission mechanism of monetary policy. Whereas the traditional money view emphasises the impact of interest rate changes on the real rate of return, the lending view accepts the existence of market imperfections and credit rationing and investigates their effects on bank lending, bank capital, and balance sheet channels (Cecchetti 1995; Boivin et al. 2010). However,

while the money view and the lending view illuminate the material dimension of the monetary transmission mechanism, the link between short-term money market rates and yields on government bonds and long-term bank lending rates is essentially *ideational*. In monetary economics, the central role of expectations has led to the emergence of – in addition to the money and the lending view – an ‘expectationalist’ view, which insists on the existence of a separate expectations channel in the transmission mechanism of monetary policy.⁴⁰ As Michael Woodford – widely regarded as the most influential monetary economist of the past two decades – put it in his canonical *Interest and Prices*, “[n]ot only do expectations about policy matter, but, at least under current conditions, very little *else* matters” (Woodford 2003: 15, original emphasis). This view has since become a commonplace among both monetary theorists and policy-makers.

Transparency: The New Classical critics of Keynesian demand management saw intransparency as a necessary feature of any active stabilisation policy, whose effectiveness “rests on the inability of private agents to recognize systematic patterns in monetary and fiscal policy” (Lucas/Sargent 1979: 58). From this perspective, counter-cyclical policies, fiscal or monetary, can only work if people adhere to a false model of the economy – that is, if they do not understand the (New Classical) concepts of Ricardian equivalence or the neutrality of money. As Giddens put it, there was a possibility “that Keynesianism can only be effective in circumstances in which the majority of the population, or certain key sets of business actors, do not know what Keynesianism is” (Giddens 1987: 201). Under the inflation targeting paradigm exactly the

⁴⁰ Morris and Shin attribute the term ‘expectationalist’ to Charles Goodhart. They use it to refer to the “school of thought that includes not only Michael Woodford, but other leading monetary economists such as Alan Blinder, Lars Svensson and Ben Bernanke” (Morris/Shin 2008: 88).

opposite holds true (Blinder et al. 2001; Geraats 2002; Blinder 2004; Walsh 2007: 143). Although the shift in monetary policy towards transparency is often explained as a straightforward result of the rational expectations view, it must be placed in the bigger context of the financialisation of the global economy (Boyer 2000; Van Treeck 2009; Watson 2009; van der Zwan 2014). Using Hardie's (2012: 14) definition – “the increased ability to trade risk” – financialisation can be described as a process that increases the share of present economic activity that is based on expectations of future financial flows (cf. Palan 2013), which in turn makes the future path of the interest rate the key variable for economic decision-making. Under these conditions, the predictability of such decision-making rests, to a significant extent, on economic agents' understanding of the (future) behaviour of the central bank. This, in short, is the reason why central banks have embraced the principle of what Abolafia and Hatmaker (2013: 541-543) have aptly called “strategic transparency”.

Gestalt: Prior to the rational expectations revolution, macroeconomic governance was a matter of hydraulic governance and, at the theoretical level, a problem of optimal control. Governance was hydraulic, because stabilisation policy took the form of government spending that directly increased aggregate demand and thus income. At the theoretical level, this approach implied that modelling the economy and governing the economy were two different things. While this idea has been expressed most clearly in relation to pre-rational expectations monetary policy, it applies equally to pre-rational expectations fiscal policy: “A set of equations described the behavior of the private sector; the job of the central bank was to select the proper settings for its policy instruments to guide the economy along its optimal path, given the policymakers' objective function” (Poole/Rasche 2000: 257). The internalisation by central

banks of the view that their own behaviour entered the calculations of market actors introduced an element of reflexivity into macroeconomic governance that meant that it could no longer be approached from an optimal control point of view: “The private sector could in principle *not* be modeled without specifying the monetary policy rule, because the behavior of optimizing agents could not be predicted without modeling their expectations about monetary policy” (Poole/Rasche 2000: 257). In other words, the social process of expectation formation became an object of governance itself – monetary policy would henceforth be a form of *performative governance* aiming to perform the very conditions for its own effectiveness.

This section has explored the ramifications of the paradigmatic shift from Keynesian fiscal demand management to central bank-centric inflation targeting for the nature of the macroeconomic agency of the state, defined as the capacity to steer the level of aggregate economic activity. While the existence of this governability was thereby assumed as given, I will, in the following, argue the case for dropping precisely that assumption. For the central bank’s ability to govern is *not* simply a corollary of its ‘independence’.⁴¹ In fact, measured against the ambitiousness of the agenda of modern macroeconomic management, and compared to the relatively straightforward mechanics of fiscal demand management, central banks “have less power than they claim and are credited with” (Ingham 2004: 223, note 18). Understanding why and how central banks nevertheless hold such sway over the economy requires an understanding of the performative nature of monetary governance.

⁴¹ It is not wrong, of course, to say that “[t]he power of the European Central Bank (ECB) is rooted in its independence established in the Maastricht Treaty” (Howarth 2009: 73). However, this is to say something about its power as a political, rather than as an economic institution.

2.2 What does it mean to say that central bank agency is performative?

In his lectures on the history of governmentality, Foucault found that the various “apparatuses of security” through which rulers attempted to regulate contagious disease, urban planning, and food scarcity in the 17th and 18th centuries shared a common characteristic that distinguished them from the traditional, sovereign mode of power. Rather than working through the sequence of order and obedience, they harnessed “natural processes” to achieve their goals (Foucault 2007: 65-66). The new mode of power that found its expression in these apparatuses of security was closely associated with the emergence in the 18th century of “the population” as “an absolutely new political personage” (Foucault 2007: 94). The hallmark of this new personage – setting it sharply apart from the purely legal, and thus man-made structure of the old sovereign’s society of legal subjects – was its naturalism:

The population appears therefore as a kind of thick natural phenomenon in relation to the sovereign’s legalistic voluntarism. To say that population is a natural phenomenon that cannot be changed by decree does not mean, however, that it is an inaccessible and impenetrable nature, quite the contrary. And this is where the analysis of the physiocrats and economists becomes interesting, in that the naturalness identified in the fact of population is constantly accessible to agents and techniques of transformation, on condition that these agents and techniques are at once enlightened, reflected, analytical, calculated, and calculating. ... I think a very important mutation in the organization and rationalization of methods of power takes place with reference to this penetrable naturalness of population.

(Foucault 2007: 71-72)

Thus, while in the face of the ‘naturalness’ of the population the instruments of the sovereign mode of power – “regulations, laws, edicts, and so on” (Foucault 2007: 69) – appeared ineffective, this did not mean that the population was entirely impervious to targeted interventions – its naturalness was “penetrable”. This called for a more subtle approach based on “calculation, analysis, and reflection”, and thus on the intimate knowledge of the natural mechanisms that governed the population. Precisely

because the population – and, by implication, the economy – “possesses its own regularities” (Foucault 2007: 104), government can only be effective if it recognises these regularities and indeed harnesses the freedoms that produce them to service its own goals.

2.2.1 Monetary governance: From game against nature to game with rational agents

Foucault’s take on the problem of governability brings into sharp relief an under-appreciated irony of New Classical macroeconomics. Robert Lucas and his followers abandoned the conceptualisation of the economy as a ‘natural’ system of aggregates following a set of mechanical laws – a view they attributed to their Keynesian opponents (Lucas/Sargent 1979). As Kydland and Prescott (1977: 473) put it in an influential paper on policy ineffectiveness, “economic planning is not a game against nature but, rather, a game against rational economic agents”. Of course, in terms of *theory*, the New Classical model of the economy – a general equilibrium structure populated by households and firms that rationally maximise underlying objective functions and adapt instantly to policy changes – was still essentially naturalistic. But in terms of macroeconomic *governance* the new ‘game against rational economic agents’ was even more difficult than the old ‘game against nature’ – the mechanical inertia of nature had been replaced by the strategic calculation of *homo oeconomicus*, which tended to neutralise or counteract any attempt at intervention by the government. Ironically, however, the ‘game *against* rational agents’ offers a possibility that is precluded in a ‘game against nature’ – in practice, governmental technologies would be devised to turn it into a ‘game *with* rational agents’.

Historically, the shift in monetary governance towards a governmental technology that harnessed the ‘rationality’ of the governed occurred gradually and was driven by policy-makers rather than by theorists. At first, the rational expectations revolution notwithstanding, monetary policy remained intransparent – at times even obscure – throughout the 1980s (Goodfriend 1986). It was only when they abandoned monetary targeting in favour of inflation targeting that central bankers began to embrace the view that their control over the economy depended on their ability to harness private actors’ rationalities (Krippner 2007). The conception of the economy as a hydraulic system that could be manipulated by skilled engineers was replaced by a model of the economy built on the microfoundation of *homo oeconomicus*, whose present profit- or utility-maximising behaviour was based on expectations about the future.⁴² Crucially, this theoretical shift had an immediate performative dimension as central banks adopted a policy regime that explicitly governed (through) expectations. For under such a regime it is true that the economy is governable only to the extent to which these expectations are formed in a systematic, predictable, and in that sense ‘rational’ way. This shift from an ‘engineering’ to a ‘strategic’ approach to monetary policy has been eloquently described by two leading financial economists as follows:

The traditional perspective viewed monetary policy as an engineering problem. Central bankers had a set of instruments under their control, faced uncertainty outside their control and sought to manipulate their instruments to achieve targets. The modern perspective views monetary policy as a strategic problem. Most of the action comes neither from instruments under the direct control of central bankers, nor from exogenous uncertainty outside their control, but rather from the actions of market participants who are mostly concerned about variables outside the direct control of the central bank – for example, long-term interest rates – but are acutely aware that everyone else is looking at the central bank for clues about where those variables are headed. (Morris/Shin 2008: 88)

⁴² For critical discussions of the New Classical claim to have put macroeconomics on firm micro-foundations, see Jansen (1993) and Hartley (1997).

In other words, central bank agency is strategic in the sense that it enlists private agents' cooperative – i.e., predictable – behaviour. Yet such prediction-based governance “can proceed only on the faith in the rationality of the market players whose opinions create the predictive device” (Zaloom 2009: 248). It has been the crucial insight of the performativity approach that such rationality is *neither* an inherent trait in economic actors, *nor* a pure figment of the New Classical imagination.

2.2.2 Central bank agency, governmentality, and performativity

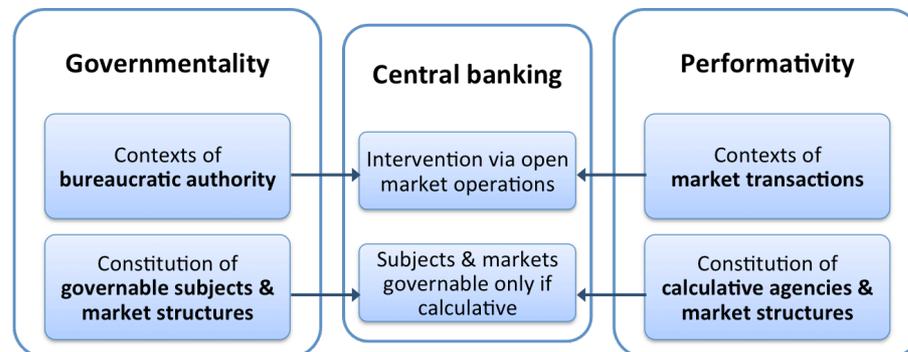
The best starting point to show up the deep links between the thinking of Michel Foucault and that of Michel Callon is both authors' emphasis on the fundamental importance of processes of “translation”, “during which the identity of actors, the possibility of interaction and the margins of manoeuvre are negotiated and delimited” (Callon 1986: 203). Such processes are also at the heart of the later Foucault's conception of power, the essence of which can be expressed in terms of “authoritative norms, calculative technologies and forms of evaluation [being] translated into the values, decisions and judgements of citizens in their professional and personal capacities” (Miller/Rose 1990: 18). The hallmark of the form of power that Foucault called “neoliberal governmentality” was that the ‘calculative technologies’ were the technologies of economics – meaning that “the interface of government and the individual” was the figure of *homo oeconomicus*:

The subject is considered only as *homo oeconomicus* ... [This] also means that the individual becomes governmentalizable, that power gets a hold of him to the extent, and only to the extent, that he is a *homo oeconomicus*. That is to say, the surface of contact between the individual and the power exercised on him, and so the principle of the regulation of power over the individual, will be only this kind of grid of *homo oeconomicus*. *Homo oeconomicus* is the interface of government and the individual.

Governmentality can thus be defined as a technology of power that interpellates the subject as *homo oeconomicus*. It does so for pragmatic rather than for ideological reasons – it is simply that “[h]omo oeconomicus is someone who is eminently governable” (Foucault 2008: 270). The systematic rationality of *homo oeconomicus* makes the population and the economy predictable, penetrable, and thus ultimately governable.

As the following section will show, Michel Callon’s (1998b: 50) insistence that “*homo oeconomicus* really does exist”, and that economic sociology needs to try and comprehend precisely “his simplicity and poverty” was at the heart of his performativity programme for economic sociology. Although Callon had by that time moved on from a language of ‘translation’ to that of ‘performance’, the similarities with Foucault’s perspective are striking. Broadly speaking, both are concerned with the constitution of subjects (Foucault’s preferred term), or agencies (Callon’s preferred term). To the extent that the two approaches differ, this difference is clearly of a complementary kind: Governmentality scholars study subjectification in contexts of *political authority*, with a specific interest in the constitution of *governable subjects and (market) structures* (Miller/Rose 1990; Foucault 2007, 2008). Performativity theorists, on the other hand, focus on *market interactions*, with a specific interest in the constitution of *calculative agencies*, including the market structures that form part of the ‘agencements’ that make calculation possible (Callon 1998b, 2007).

Figure 2: Convergence of bureaucratic authority and market transactions in central bank practice



At this point, the link between the complementarity of Foucault and Callon’s work and the hybridity of central bank agency stand clearly before us (see Figure 2). For as explained in the introduction, the central bank is both ‘central’ – a branch of the state equipped with governmental powers – and a ‘bank’, which engages in open market transactions with private banks on a daily basis. While the following section focuses on the notion of performativity, the Foucauldian notion of the ‘apparatus’ will feature prominently in my conceptualisation of central bank agency in sections 2.4 and 2.5.

2.3 Performance and performance: Two types of performativity

In his influential introduction to *The Laws of the Market*, Callon argued that instead of being embedded in society, the economy was embedded in economics, which “performs, shapes and formats the economy, rather than observing how it functions” (Callon 1998b: 2). This notion of the performativity of economics has since inspired a successful research programme. Following the pioneering work on options pricing models by Donald MacKenzie and Yuval Millo (2003; MacKenzie 2004, 2006), social studies of finance (SSF) scholars have produced a substantial body of research on the technical and social tools and devices through which financial actors and markets are

performed.⁴³ The notion of performativity has also enjoyed increasing popularity in international political economy.⁴⁴ Arguably, however, MacKenzie's very success in demonstrating the "Barnesian" (MacKenzie 2006: 18-19) performativity of options pricing theory – meaning the transformation of real derivative markets in the image of the Black-Scholes-Merton formula – has created a tendency to take 'performativity' to mean 'economic models becoming true'. The real contribution of Callon's work, however, lies not in showing that economic models literally become 'true' in some cases, but in providing economic sociology and political economy with a theoretical tool that allows them to study the economy *directly* (Barry et al. 2002: 301). For these disciplines have effectively relinquished the investigation of economic processes to economics, limiting themselves to the study of economic policies and of the regulation, social embeddedness, or discursive representation of the economy. Since – unlike economics – economic sociology and political economy have an analytical purchase on the performative dimension of economic phenomena such as liquidity, futurity, or knowledge, they would do well to leave this self-imposed division of labour behind. Indeed, to the extent that they free themselves of their 'econophobia' – the reluctance to engage seriously with economic processes and economic theories – scholars from these disciplines can make genuine contributions to our understanding of the organisation and governance of economic processes.

⁴³ Among the tools and devices studied in the SSF literature are the trading room (Beunza/Stark 2004), the stock ticker (Preda 2009), financial models (Millo/MacKenzie 2009), and derivatives indices (MacKenzie 2012).

⁴⁴ The IPE literature has covered a variety of issues – the performativity of monetary and of portfolio theory (Watson 2007, 2009), the performative agency of hedge funds (Holmes 2009), the performance of liquidity (Langley 2010), financial engineering as performance (Clarke 2012), and the performative nature of sovereign credit ratings (Paudyn 2013).

2.3.1 On the intellectual genealogy of Callonian performativity: Continuity with STS, rupture with economic sociology

In contrast to what is suggested by the title of Mäki's (2013) performativity critique – “Saving Austin from MacKenzie” – it is actually MacKenzie and Callon that need saving from Austin. Debates about the performativity of economics have often been muddled precisely because Austin's and Callon's notions of performativity have much less in common than is commonly assumed. One of the central figures in the ‘linguistic turn’ in philosophy, Austin was interested in performative utterances, that is, cases in which “to say something is to do something” (Austin 1962: 12). Ironically, the tendency to over-emphasise the linguistic lineage of performativity – at the expense of the sociological path that led Callon to adopt the concept – was reinforced by MacKenzie (2004) himself when he coined the phrase ‘Austinian performativity’ for what he described as a strong version of performativity. MacKenzie subsequently recognized, however, that the term “had the disadvantage of being read as invoking not sociology, which is what I wanted to invoke, but linguistic philosophy” (MacKenzie 2006: 19). The reason why it would be wrong to see in Austinian speech act theory the foundation for Callon's work is that the latter's propositions concerning the performativity of economics emerged straight out of his previous research in science and technology studies (STS) and his own theoretical contribution to the field, actor-network theory (ANT). In a joint paper with Bruno Latour, and in his famous account of the scallop industry of St Brieuc Bay, Callon criticized sociologists for explaining (the generation of) scientific knowledge by social macro-structures in which science is presumably embedded (Callon/Latour 1981; Callon 1986). He argued that scientific knowledge itself takes part in the constitution of society, and that the agency of human beings derived from their embeddedness in networks that included such

knowledge. The controversial ‘material turn’ of ANT lay in the argument that the relations that make up the agent-network include material objects (Law 1992: 383). Consider the following quote by Latour, which pinpoints the central aim of ANT – the dethroning of ‘society’ as the *explanans* of sociology:

Whereas sociologists (or socio-economists, socio-linguists, social psychologists, etc.) take social aggregates as the given that could shed some light on residual aspects of economics, linguistics, psychology, management, and so on, these other [ANT] scholars, on the contrary, consider social aggregates as what should be explained by the specific associations provided by economics, linguistics, psychology, law, management, etc.

(Latour 2005: 5)

This quote shows that Callon’s notion of performativity is not so new after all. It is quite simply a new name given to the study of a ‘science’ that has formerly not been analysed by STS – the ‘science’ of economics (Barry et al. 2002: 285). Yet if STS and ANT provided the positive inspiration for Callon’s 1998 intervention, the ‘new economic sociology’ stood in as the intellectual opponent.⁴⁵ Building on the work of Max Weber and Karl Polanyi, the new economic sociology re-established the Durkheimian view that economic actors and markets are, like all actors and institutions, embedded in society:

[T]he man that the economists talk about, this systematic egoist, is little but an artificial man of reason. The man that we know, the real man, is so much more complex: he belongs to a time and a country, he lives somewhere, he has a family, a country, a religious faith and political ideas.

(Durkheim 1974, cited in Smelser/Swedberg 1994: 11)

Starting from this Durkheimian position, the new economic sociology devoted much effort to the project of criticising and/or enriching *homo oeconomicus* – a project that, as pointed out by Bourdieu (2005: 15), stood little chance of coming up with a cri-

⁴⁵ For an anthology of new economic sociology writings, see Smelser and Swedberg (1994).

tique of the assumptions of economics “that has not been expressed somewhere or other by an economist”.⁴⁶ A more fundamental problem, however, was that the new economic sociology did not allow for the possibility that the ‘artificial man of reason’ might be more than just a myth of economics, and that, in some contexts, he might actually exist. The Durkheimian contempt for economics in economic sociology provided the backdrop for Callon’s intervention. He argued that “*homo oeconomicus* really does exist”, and that sociology needs to try and comprehend precisely “his simplicity and poverty” (Callon 1998b: 50). In other words, the central puzzle is the performance of what Callon calls ‘calculative agencies’.

2.3.2 *The process of performance: Disentangling and framing*

While it is not always clear in the literature whether an author thinks of performativity as a *process* or as an *outcome*, Callon’s thinking arguably has always been concerned with processes. However, it was only relatively recently that he emphasised this by introducing the concept of “performance”, defined as “the process whereby sociotechnical arrangements are enacted” (Callon 2007: 330). This definition highlights the processes through which certain agencies, activities, or spaces become separated from other (social) contexts and re-constituted as *economic* agencies, activities, or spaces.

Given the obvious similarities, why did Callon not adopt Polanyi’s language of embeddedness and disembeddedness? Drawing on insights from anthropology,

⁴⁶ Mark Granovetter, one of the towering figures of the new economic sociology, needs to be partially exempted from these charges. Although it was Granovetter (1985) who revived Polanyi’s notion of embeddedness, his definition differs from the Polanyian understanding in that the “network” does not provide the actors with stable identities, interests, and preferences. Instead, the latter “are variable outcomes which fluctuate with the form and dynamics of relations between these agents” (Callon 1998b: 8). Thus, Granovetter’s notion of embedded agency is quite similar to ANT’s idea of networked agency.

Polanyi had shown that the emergence of “an independent economic sphere in society” that “attains to an autonomy that invests it with laws of its own” occurred as late as the 19th century (Polanyi 1957: 68). It is easy to see, then, how the performativity approach is complementary to Polanyi’s account of how the economy became disembedded. Like Polanyi, Callon is interested in the processes which constitute the ‘autonomy’ of the economy as an independent sphere with ‘laws of its own’. This basic affinity notwithstanding, however, Callon emphasised that it was crucial for him to “get rid” of the concept of (dis-)embeddedness (Barry et al. 2002: 292). He introduced the metaphors of *disentanglement* and *framing* because of their ability to capture the dynamic nature of the ongoing performance of calculative agencies and the endless transformations of the economy. Borrowing the term from Erving Goffman, Callon (1998a: 249) defines a frame as a structure that “establishes a boundary within which interactions ... take place more or less independently of their surrounding context”. The existence of such a boundary is the result of two intertwined operations: First, the relations – between both humans and objects – that are taken into account need to be disentangled from those that shall not be taken into account. In a second step, a frame must be imposed in order to maintain that separation. In the case of economic interactions, these processes of disentanglement and framing – which often require considerable material investments – are geared towards making interactions amenable to calculation.⁴⁷

Framing, however, can never be complete. There are always leaks in the frame which either allow excluded relations to spill over *into* the frame or included relations

⁴⁷. For elaborations of the concept of calculation, see Callon and Muniesa (2005) and Callon and Law (2005).

to flow *out* into the vast murky sea of non-calculability that surrounds the frame. Unlike economists, who tend to view such ‘externalities’ as exceptional cases of market failure, Callon sees them as the rule rather than the exception. Emphasising the permeability of the frame, he uses the term “overflowing” to denote the “impossibility of total framing” (Callon 1998b: 18).⁴⁸ It is this inevitable incompleteness of performative processes that leads to the phenomenon for which MacKenzie (2004) coined the term ‘counterperformativity’.⁴⁹ Whereas an aspect of economics is understood to be performative in a strong sense if its application alters economic processes “so that they better correspond to the model”, counterperformativity describes a situation in which the use of an economic model *undermines* its empirical accuracy (MacKenzie 2006: 19).

2.3.3 *Performance as act or ritual*

While I have expressed scepticism regarding the extent to which the Austinian notion of performative utterances can serve as a useful tool in the study of economic phenomena, another facet of the “performative turn in the social sciences” (Muniesa 2014: 11) is key. For neither Austin nor Callon’s conceptions of performativity have much to say about the meaning of ‘performance’ that is most familiar to everyday language – performance “as acting and staging in an almost explicitly theatrical sense” (Muniesa 2014: 11). This understanding was pioneered by Erving Goffman, whose

⁴⁸ More recently, Callon introduced term “misfires” to denote instances of overflowing (Callon 2010).

⁴⁹ While related to the notion of overflowing, counterperformativity denotes a very specific form of overflowing, and is therefore MacKenzie’s innovation, see MacKenzie (2004: 330, footnote 7).

simple exposition of the problem has since inspired countless applications in sociology and beyond.⁵⁰

When an individual plays a part he implicitly requests his observers to take seriously the impression that is fostered before them. They are asked to believe that the character they see actually possesses the attributes he appears to possess, that the task he performs will have the consequences that are implicitly claimed for it, and that, in general, matters are what they appear to be.

(Goffman 1959: 10)

The reason why this is relevant not only to an explicitly theatrical setting but to social life more generally is that an individual *always* ‘plays a part’ – since the gap between expression and impression is present in any social encounter, social action is always and everywhere performance.

This inevitably raises the question of the sincerity of the performance. According to Goffman, the standard case is that of the “sincere” performance, in which the performer not only convinces the audience of the sincerity of his act but is also himself “convinced that the impression of reality which he stages is the real reality” (Goffman 1959: 10). A “cynical” performance, on the other hand, is one in which “the individual has no belief in his own act and no ultimate concern with the beliefs of his audience, we may call him cynical” (Goffman 1959: 10). Between these two extremes lies a continuum. For instance, a cynical performer may have altruistic reasons for putting on an act, that is, “delude his audience for what he considers to be their own good” (Goffman 1959: 11). At the same time, one could imagine a situation in which the performer believes in her own act yet in which “the sociologist or the socially disgrun-

⁵⁰ For instance, the notion of performance as ritual had a strong influence on Judith Butler’s (1990: 140) work on gender as a performative effect: “In what senses, then, is gender an act? As in other ritual social dramas, the action of gender requires a performance that is repeated. This repetition is at once a reenactment and reexperiencing of a set of meanings already socially established; and it is the mundane and ritualized form of their legitimation.”

bled” could nevertheless have “doubts about the ‘realness’ of what is presented”, as Goffman (1959: 10) notes (presumably) with a smile. Indeed, at certain points of my analysis, the question will arise of whether central bankers are, for example, the anti-inflation hawks they pretend to be, or whether they ‘really’ share the public’s conception of the central bank as being tightly in control of monetary conditions.

Thus, two distinct yet related meanings of ‘to perform’ are central to my analysis of monetary governance in the euro area. On the one hand, the discourses and practices of monetary governance perform calculative agencies. I will use the term *performation* to convey this transitive meaning, emphasised by Callon, of performing *something*. On the other hand, central banks and central bankers perform in the sense of ‘putting on an act’ – sincere or cynical – in front of an audience. When referring to this intransitive meaning, emphasised by Goffman, I will speak of *performances*. While a clear distinction at the theoretical level is crucially important to the clarity of any argument about performativity, the two are nevertheless related in the sense that a performance may be an integral part of a performation. This is particularly relevant in the interaction between the ECB and the non-expert public, where an (intransitive) performance by Jean-Claude Trichet as “Mr. Euro” (Holmes 2014: 4) may be key in performing the ‘moneyness’ of the euro – a concept that will be elaborated in chapter five. Moreover – and this has been systematically overlooked in the literature on central bank communication – theatrical performances are also a key ingredient to the performation of central bank ‘credibility’ with expert audiences, as will be shown in chapter four.

2.4 Disaggregating ‘the public’: Towards a multidimensional conception of central bank agency

While scholars who have contributed to the social studies of central banking deserve praise for taking the theories and discourses of central banking seriously, they may actually have taken them too literally. This is manifest in authors’ tendencies to reduce central bank agency to its communicative dimension and to accept unquestioningly the notions that modern central banks are ‘transparent’ and that their audience is ‘the public’ (Krippner 2007; Hall 2008; Abolafia 2010; Holmes 2014). Mindful of Goffman’s point that social scientists should remain sceptical even when faced with ‘sincere performances’ I would argue that it is precisely *because* ‘communication’, ‘the public’, and ‘transparency’ feature so prominently in the official central bank discourse that these terms cannot provide the analytical foundations for the analysis of central bank agency and monetary governability. Firstly, the crucial importance of communication notwithstanding, discourse is not the only (performative) dimension of monetary governance. Central bank agency operates also through *practices* that deserve just as much scrutiny. Secondly, to equalise the “target audiences” of the central bank with “the public” (Holmes 2014: 13) is insufficient, the latter being much too broad a category. Any attempt to understand modern monetary governance must account for the existence of sharp divisions within ‘the public’ with regard to the extent to which certain groups participate in, are affected by, or are able to understand monetary governance. Finally, given that in the economic realm both uncertainty and unawareness are pervasive, the reality and thus the concept of ‘transparency’ are more complex than either monetary economics or the social studies of central banking have been ready to concede.

The analytical framework developed in the remainder of this chapter is designed to meet the challenge posed by these three problems. It is based, above all, on the empirically derived notion that central bank agency is not uniform, but multidimensional. Crucially, this multidimensionality does not refer to the mandate of the central bank – prior to assuming supervisory responsibilities in November 2014, the ECB’s mandate had been restricted to maintaining price stability – but to the plurality of the central bank’s audiences, of the governability challenges posed by these, and of the mechanisms through which the central bank copes with these challenges.

Among political economists, the point that ‘the public’ is too broad a category to serve as a meaningful concept in the study of monetary policy is well taken. However, most studies of the distributive politics of monetary policy divide the public into interest groups – groups who stand to win or lose from low or high interest, exchange, or inflation rates (Posen 1993; Hall/Franzese 1998; Bernhard et al. 2003). The validity of this approach notwithstanding, the present focus on the practices of monetary governance calls for a disaggregation of ‘the public’ in accordance with the *inner logic* of those practices, rather than with their *outcomes*. This logic suggests two complementary criteria for a more fine-grained typology.⁵¹ On the one hand, groups can be distinguished according to their *role* in the economy, and, more specifically, the capacity in which they affect (and are affected by) the transmission mechanism of monetary policy. Three such roles can be distinguished, which are displayed across the columns of Table 2: (i) the lenders (banks and other financial intermediaries), who set interest

⁵¹ It should be noted that although this is an attempt to come up with a classification of economic groups that is more nuanced, and thus closer to reality than the notion of ‘the public’, the distinctions that I propose necessarily remain schematic.

rates; (ii) the borrowers (non-financial firms, households, and the government), whose spending determines aggregate demand; and (iii) the producers (employers and trade unions)⁵², who are responsible for setting wages. On the other hand, ‘the public’ can be disaggregated according to the *financial literacy* of its constituent parts. The rows of Table 2 display a continuum of financial literacy: (i) the participants in the inter-bank market who can be described as *super-insiders*; (ii) *insiders* in the financial sector more generally, in non-financial firms, the government, and social partners; and (iii) savers, borrowers, or consumers, who together constitute the group of outsiders.⁵³

Table 2: Economic groups affected by monetary policy

ROLE IN THE TRANSMISSION MECHANISM OF MONETARY POLICY

		Lenders setting interest rates	Borrowers creating aggregate demand	Producers setting wages
FINANCIAL LITERACY	Super-insiders	Money market		
		Financial intermediaries		
	Insiders		Firms as borrowers Government	Firms as employers Trade unions
	Outsiders	Household savers	Household borrowers	

Explanation: Groups are categorised according to their role in the transmission mechanism (left to right) and their financial literacy (top to bottom)

The reason to chose the financial literacy classification as the template for the empirical analysis of the Eurosystem – and thus to lump together the lenders, borrowers, and producers in the insider category – is that each of these groups poses a distinct

⁵² Where wage agreements are negotiated at the firm-level, trade unions are not necessarily involved in the process.

⁵³ This classification abstracts from the fact that those households that comprise individuals counted as insiders in their professional roles must also, of course, be counted as insiders.

governability challenge. Thus, the challenge of monetary policy implementation – to control the short-term interest rate – is negotiated between the ECB and the interbank market (or super-insiders). The challenge of monetary transmission – to manage private sector expectations of the future – , is negotiated primarily between the ECB and monetary insiders. Finally, the challenge of monetary trust is negotiated primarily between the ECB and ‘the public’ at large, meaning monetary outsiders.

It should be noted that the distinction of monetary policy implementation and monetary policy transmission is well established in the economic literature, even though the former has traditionally been neglected (Bindseil 2004, 2011; Friedman/Kuttner 2011). However, to the best of my knowledge there have been no attempts by political economists to examine implementation in a systematic manner. And while the existence of monetary outsiders is not, of course, a secret, they have been largely ignored by both economists and political economists. As noted in a recent ECB working paper, “the [economic] academic literature has mostly equated the outside world with financial market participants” (van der Cruijssen et al. 2010: 5, see chapter five for details). That said, my approach is innovative in that it does not only take all three audiences seriously, but matches them with distinct dimensions of central bank agency in the form of three apparatuses of monetary governance. This approach enables a deeper understanding of how economic power is wielded under a central-bank centric governability paradigm.

2.5 Three apparatuses and three performative modes of monetary governance

The previous section has argued that central bank agency is multidimensional in the sense that its power over different parts of the economy takes very different forms. In

light of the above discussion of the performative nature of monetary governance, this power can be described in terms of three distinct modes of performative governance – money markets, insiders, and outsiders are governed through money, expectations, and trust, respectively. Before I continue to describe these modes of governance, however, there is the crucial question of how to conceptualise the three dimensions of agency – what exactly is it that governs in monetary governance?

The first place to look is in the ECB's own terminology. Here, the obvious candidate for monetary policy implementation would be the 'operational framework', which comprises open market operations, the reserve requirement, and the standing facilities. However, as chapter three will show, the actual 'framework' goes beyond that and includes collateral eligibility criteria, which in turn requires recognised credit rating mechanisms, etc. More importantly still, the technocratic notion of 'framework' would not allow us to include ritualistic performances, which play an important role in the governance of expectations and trust. We must therefore look elsewhere.

Given the emphasis on performativity, the notion of 'agencements' would be a natural candidate. This term, which Callon borrowed from Deleuze and Guattari, is based on the ANT-inspired argument that if *homo oeconomicus* was to be taken seriously as a form of agency that actually existed in the real world, he or she could not be conceptualised simply as a clever version of *homo sapiens*. Instead, economic agency takes the form of "sociotechnical agencements" – "arrangements endowed with the capacity of acting in different ways depending on their configuration" (Callon 2007: 320), which "are made up of human bodies but also of prostheses, tools, equipment,

technical devices, algorithms, etc.” (Callon 2005: 4).⁵⁴ Yet while a suitable candidate in principle, there is the significant problem that the concept of ‘agencement’ has become associated with agencies that act in markets, rather than with governmental institutions. Thus, while a hedge fund can be analysed as an agencement (Hardie/MacKenzie 2007a), it would be potentially confusing – for at odds with the conventional use of the term – to describe the ECB’s communication strategy as an agencement.

This leaves us with a third option – the Foucauldian notion of the apparatus (*dispositif*, in the French original). I take my cue from Paul Langley (2014) whose study shows how fruitfully this notion can be applied to the study of financial and monetary governance. If Callon’s agencement is ‘that which acts in the economy’, an apparatus is ‘that which governs the economy’. As mentioned earlier in this chapter, the “apparatuses of security” did not work through the sequence of order and obedience but harness “natural processes” to achieve their goals (Foucault 2007: 65-66). Foucault’s perspective is thereby consistent with the idea of performative governance, where processes are not ‘natural’ but created by the apparatus itself. Regarding the elements it includes, Foucault described an apparatus as

a resolutely heterogeneous grouping composing discourses, institutions, architectural arrangements, policy decisions, laws, administrative measures, scientific statements, philosophic, moral and philanthropic propositions; in sum, the said and the not-said, these are the elements of the apparatus.

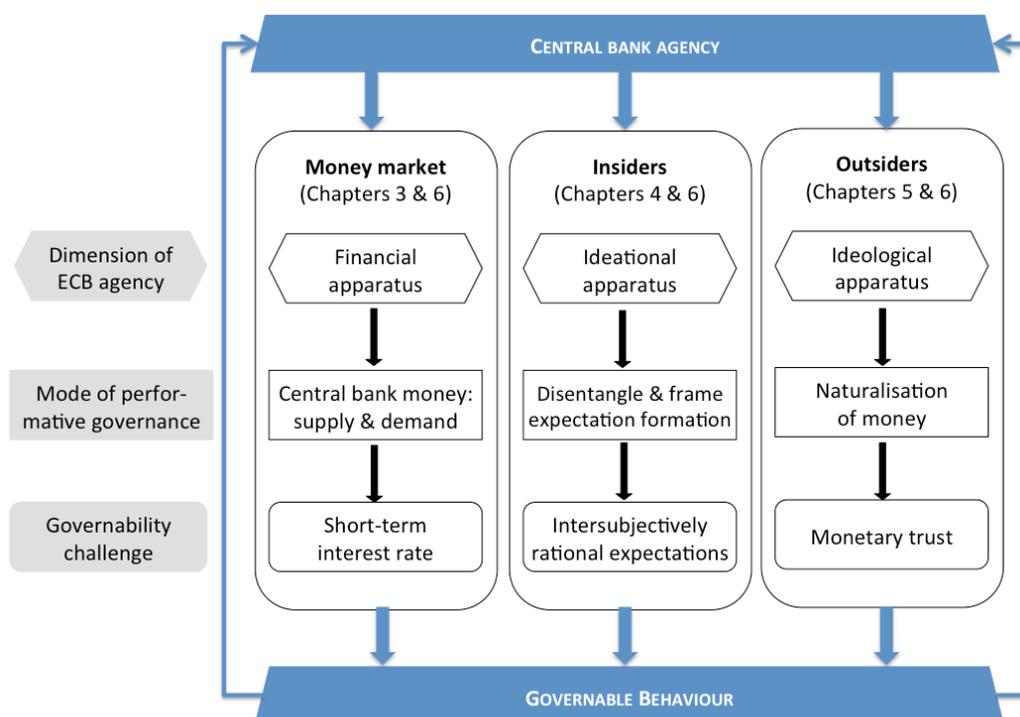
(Foucault 1980: 194, quoted in Langley 2014: 22)

⁵⁴ While close (in French) to the meaning of ‘arrangement’ or ‘assemblage’, these latter terms imply an unwelcome “divide between human agents (those who arrange or assemble) and things that have been arranged” (Callon 2007: 320).

Although it does not mention them explicitly, this definition is clearly broad enough to include the ritualistic performances that play such an important role in monetary governance.

Thus, the remainder of this chapter briefly introduces the three apparatuses, each of which responds to a distinct governability challenge: (i) the financial apparatus of monetary policy implementation; (ii) the communicative apparatus of expectation management; and (iii) the ideological apparatus of monetary trust. While Langley focuses on apparatuses of crisis management, my analysis will trace the evolution of the three apparatuses of monetary governance from the early days of the euro through the recent period of financial and economic crisis. The relationships between the three audiences, governability challenges, and apparatuses are schematically visualised in Figure 3.

Figure 3: The analytical framework: Three dimensions of central bank agency and three performative modes of monetary governance



2.5.1 The financial apparatus of monetary policy implementation: Governing the money market

In Table 2, the category of ‘insiders’ cuts across all three groups that are key to the transmission mechanism, thus including both the non-financial and the financial sector. The money market, however, stands out even among those insiders. This is not so much because of its greater financial sophistication, but because of its special *role* in the transmission mechanism of monetary policy. In fact, since the interest rate – that is, the operational target of the central bank – is determined in the money market, the latter is not only an object but also an *agent* of monetary governance. Outside of expert economic circles little is known about this unique intertwining of state and market institutions. The reason why the euro area is a particularly interesting case in

this respect is that an integrated euro area money market did not exist prior to the introduction of the common currency in 1999. Chapter three therefore gives a detailed account of the Eurosystem's involvement in the building and the subsequent evolution of this market. The focus thereby is on the *financial apparatus* through which the Eurosystem asserts its agency in this market. This apparatus governs through money in the sense that it organises both the supply of and the demand for central bank money.

2.5.2 *The communicative apparatus of expectation management: Governing insiders*

The best-known mode of performative monetary governance is governance of and through expectations. It has been explored, in one way or another, by economists (Blinder 1999; Woodford 2003; Blinder 2004), political scientists (Hall 2008), sociologists (Krippner 2007, 2011; Abolafia 2010), and anthropologists (Holmes 2014). I relate this mode of governance to both financial and non-financial insiders – those economic actors whose macroeconomic expectations are key to the transmission mechanism, and whose understanding of monetary policy is sophisticated enough to form such expectations in the first place. Here, monetary governance is performative in both senses of the term discussed above. The *communicative apparatus* of the ECB affects the economy by disentangling and framing the expectation formation process of monetary insiders so as to make it predictable and, ultimately, governable. This apparatus includes theories and models of the economy, institutional structures, and, crucially, theatrical performances, whose explicit or implicit purpose is the 'rationalisation' of expectation formation. This aspect of the performative monetary governance of the ECB is studied in detail in chapter four.

2.5.3 *The ideological apparatus of monetary trust: Governing outsiders*

Household decisions to save or borrow and consume play a key role in determining the level of aggregate demand, and are therefore of considerable importance to monetary policy-makers. But their generally low level of financial literacy sets households apart from the other groups, compared to which households are monetary ‘outsiders’. Blinder et al. (2001: 23) were right to point out that “[t]he average citizen typically does not understand monetary policy, and they make little effort to grasp what they perceive as an arcane world which speaks mostly unintelligible words.” However, while it is misguided to study central bank communication ‘with the public’ as if ‘the public’ could understand, it would be equally wrong to dismiss the interaction between outsiders and the central bank as economically – let alone politically – irrelevant. In fact, it is precisely the analytical decision to take monetary ignorance seriously that renders visible the third performative mode of monetary governance. For the challenge that monetary outsiders pose to monetary governability is not, in the first instance, about households adjusting their balance sheets in response to central bank communication or interest rate changes. Rather, it is about people having *trust* in the money they use, in the banking system creating that money, and in the central bank and the government backing the banking system. Monetary trust being the result of a ‘performative naturalisation of money’ (Carruthers/Babb 1996; Ingham 2004; Poovey 2008), the third performative mode of monetary governance can be described as operating through an *ideological apparatus*. The latter’s performative effect is to bolster the ‘moneyness’ of money by concealing the social relations of credit and debt that are its foundation. This dimension of the agency of the ECB is explored in chapter five.

2.6 Conclusion

This chapter has argued that central bank agency is performative in two major ways. On the one hand, the central bank performs the very institutions, calculative agencies, and trust relationships that make the economy governable. Rather than adjusting material incentives on the basis of existing expectations and behavioural patterns, the central bank (re-)configures both market structures and market actors, thereby performing the “well-functioning, self-equilibrating money market” (Gaspar et al. 2001: 327, see chapter three) and the “market expectations for long-term growth and inflation trends in the economy” (ECB 2004c: 45, see chapter four) that render the economy governable in the first place. On the other hand, the central bank performs, in the theatrical sense of the term, as ‘credible’ and ‘independent’, and as the chief protagonists in the collective enactment of money. In short, the following analysis will focus on the ECB as performing governable market structures and agencies in the transitive sense in which Michel Callon has used the term, but also as performing in the intransitive sense of staging an act in front of an audience.

On the basis of the theoretical argument that central bank agency is performative and the empirical argument that it is multidimensional, this chapter has introduced an analytical framework that distinguishes three performative dimensions of monetary governance: the governance of money markets (super-insiders) through money; the governance of insiders through expectations; and the governance of outsiders through trust. As illustrated by the existing social studies of central banking literature, failure to take these three dimensions seriously tends to lead to a narrow focus on communication as the most visible aspect of central bank agency (Hall 2008; Holmes 2014). In contrast, my framework accounts for the multidimensional character of central bank

agency in relation to the different parts of the economy and their respective governability challenges.

Before proceeding to the empirical analysis in the next chapter, two final methodological remarks are in place. First, to reiterate a point already made in the introduction, the relative weight of the my three data sources – ECB documentation, the discourse of monetary economics, and qualitative interview data – varies between the chapters. Thus, my analysis of the financial apparatus is based mostly on the technical documentation the ECB provides on its operational framework. My reading of this documentation is guided and supported by interviews with central bank staff from the market operations side of the Eurosystem. Chapter four, which examines the communicative apparatus of expectation management, draws much more extensively on interviews with ‘audience members’, that is, monetary insiders. Finally, chapter five is special in the sense that the governability challenge faced by the ECB in relation to monetary outsiders is not very well explored in the literature. This chapter therefore expends more space and effort on conceptualising the nature and the sources of monetary trust, thereby drawing on the social studies of money and central banking. Moreover, since the historical dimensions of the communicative and the ideological apparatuses transcend the relatively short life span of the euro, chapters four and five feature brief discussions of other central bank traditions that have influenced or shaped the ECB, namely those of the Fed during the 1980s and of the Bundesbank. As for the second methodological remark, it should be noted that the differentiation of three dimensions of central bank agency represents an analytical distinction, albeit one grounded in empirics. The distinction between insiders and outsiders in particular is not clear-cut, as it cannot always be decided with certainty whether a particular

group or individual falls into the insider or the outsider category. This caveat notwithstanding, however, the remainder of this work hopes to show that conceptualising monetary governance as operating in three distinct performative modes yields original insights that will not only be of interest to the specialised social studies of central banking, but also speak to broader debates within political economy concerning, in particular, the question of economic state agency in a central-bank centric, financialised economy.

3. Governing the money market: The financial apparatus of monetary policy implementation

The Eurosystem's approach to monetary policy implementation relies largely on self-regulating market mechanisms. One good example of this is the ECB's limited presence in the market – i.e. its 'hands-off' approach with very few direct interventions in the market, typically only once a week, and more frequently only in periods of financial market stress.

(ECB 2008d: 71)

The Eurosystem operational framework is predicated on a well-functioning, self-equilibrating money market.

(Gaspar et al. 2001: 327)

Although variations of such matter-of-fact statements can be found in almost any speech or publication of the Eurosystem on its operational framework, it is safe to say that the role of the money market for what the ECB is doing remains obscure even to well-informed parts of the public such as journalists, politicians, or, for that matter, political economists. This obscurity goes hand in hand with a perception of the central bank as a *central* bureaucratic authority rather than as a *bank* acting in private markets. Importantly, the relative visibility of what will, in the following, be called the *financial apparatus* of monetary policy implementation, decreased as the conception of the nature and purpose of central banking changed. The earliest central banks were set up by governments in the 17th century in order to improve their access to financing and to unify and centralise note issuance and metallic reserve management (Goodhart 1988: 4-5). With the emergence of capitalist financial systems, the focus of central banking shifted from the stability of government finances to the stability of the financial system – a shift that found its canonical formulation in Bagehot's (1873) *Lombard Street: A Description of the Money Market*. It was only after the Great Depression and in the context of the birth and consolidation of macroeconomics that central

banks gradually adopted the task of macroeconomic management that is commonly associated with ‘monetary policy’ today: “[T]he focus was no longer on the behavior of the central bank as a business in the center of the financial system, but on the role of monetary policy in macroeconomic stabilization” (Hellwig 2014: 15).

Reviewing half a century of research on monetary policy, a recent state-of-the-art article on monetary policy implementation found that “[o]ddly, very little of this research addresses what central banks actually *do*” (Friedman/Kuttner 2011: 1346, original emphasis). The political economy literature has equally focused on the more salient macroeconomic dimension of monetary policy (Hall/Franzese 1998; Watson 2002; Kirshner 2003; Hay 2009). The same can be said for authors within the social studies of central banking who emphasise – correctly – that central banks have increasingly relied on harnessing private sector actors to achieve their goals. Thus, Holmes’ (2014) exploration of the communicative aspects of monetary policy passes over implementation altogether. Although Hall briefly mentions the issue, his analysis largely skips the implementation stage that involves the money market, focussing instead on the interaction between the central bank and the bond market (Hall 2008: 59-61, 191-198). The exception is Krippner’s (2011: 114-134) account of the evolution of U.S. monetary policy from 1979 to 2001, in which implementation features prominently. Her analysis reveals the politics of monetary policy implementation by showing how the strategic choice of monetary targeting helped the Volcker Fed to ‘conceal’ its own agency in provoking the 1980 recession to bring down inflation.⁵⁵ Moreover, apart from its different empirical focus – on the ECB rather than the Fed, and on the period since 1999 rather than the previous decades – the present chapter is

⁵⁵ I will return to this pivotal episode in the recent history of central banking in chapter four.

also motivated by a different research question. Whereas Krippner shows how the Fed chose one mode of implementation over another in order to tighten its control over its target variable, the inflation rate, I am interested in how the ECB controls its operational target, the short-term interbank interest rate.

Thus, this chapter separates the analysis of the interaction between the ECB and money market super-insiders from the study of the ECB's interactions with market insiders beyond the money market. This decision is motivated by the fact that the bank-dimension of central bank agency is particularly pronounced in the area of monetary policy implementation, where the ECB acts as a bank – although one equipped with certain privileges – among other banks. That said, the following is a detailed analysis of the financial apparatus of monetary policy implementation, within which *both* the Eurosystem and the money market appear as agents of monetary governance. The reason to speak of a 'financial' apparatus is that it governs 'through money' in the sense that unlike the communicative and ideological apparatuses the financial apparatus operates directly through the market – that is, via the interplay of supply and demand for central bank money.

Three types of agency are involved in organising this interplay of supply and demand. First, the ECB uses administrative authority – most notably in the form of the minimum reserve requirement, which creates an 'artificial' *demand* for central bank money. Second, with regard to the organisation of the *supply* of central bank money, the ECB acts as a bank, conducting quid-pro-quo open market operations into which counterparties enter on a voluntary basis. Finally, the financial apparatus includes structures and institutions that pertain to the market side and are influenced to a greater or lesser degree by the ECB. These structures and institutions – for instance,

market integration across borders, collateral availability, and rules regarding the securitisation and trading of loans – must be considered part of the financial apparatus because they determine the demand for central bank money and the extent of secondary trading of central bank money in the interbank market.

The chapter begins with a general overview of the transmission mechanism of monetary policy and the role of the money market in it – an overview that is equally relevant to the discussion of expectation management in chapter four. Section 3.2 describes the initial set-up of the instruments of the Eurosystem – the minimum reserve requirement, open market operations, and the three standing facilities. The textbook-like exposition in that section is necessary to prepare the ground for section 3.3, which traces the subsequent evolution of the financial apparatus of monetary policy implementation. Looking at both administrative and market structures, I place particular emphasis on the ‘politics of collateral’ and on the ECB’s dramatically increased presence in the money market from 2008 onwards. Section 3.4 summarises the main findings of the chapter.

3.1 The money market and the transmission mechanism of monetary policy

The central problem of modern monetary policy is that although its goal is usually defined in terms of aggregate prices, the instrument at its disposal, the short term interest rate, does not give it control over the pricing decisions of economic actors.⁵⁶ In fact, as is illustrated in Figure 1 above, the gap between the one variable (largely) controlled by the central bank, the short-term interest rate, and its ultimate target, the

⁵⁶ As explained in greater detail in section 3.2 below, the short-term interest rate is not, strictly speaking, the instrument, but the operational target of most central banks.

inflation rate, could not be larger. On the one hand, the inflation rate is influenced by a host of factors over which the ECB has little or no control at all – changes in the global economy, in particular in commodity prices, or fiscal policy decisions, fluctuations of bank capital.⁵⁷ On the other hand, the short-term interest rate “is relevant to virtually no economically interesting transactions” (Blinder 1999: 70), meaning it does not have an immediate impact on those variables that ultimately determine employment and aggregate demand, and thus inflation. For these reasons, the fundamental question of monetary policy is how changes in the policy interest rate work their way through the economy via the so-called transmission mechanism of monetary policy.

Before proceeding to discuss the transmission mechanism, however, it is important to first be clear about the nature of the interest rate that is the operational target of the Eurosystem. This is the interest rate at which banks lend to each other in the interbank market at very short maturities, ranging from overnight lending to maturities of up to several months.⁵⁸ The discussion of the precise mechanisms through which the Eurosystem exerts control over these market interest rates must be relegated to the following section. What matters at this stage is that the market for overnight funds is the shortest maturity segment of the money market – the market in which short-term funds are raised, invested and traded between banks and other financial institutions. Yet although changes in the price of these funds, which are part of banks’ operating

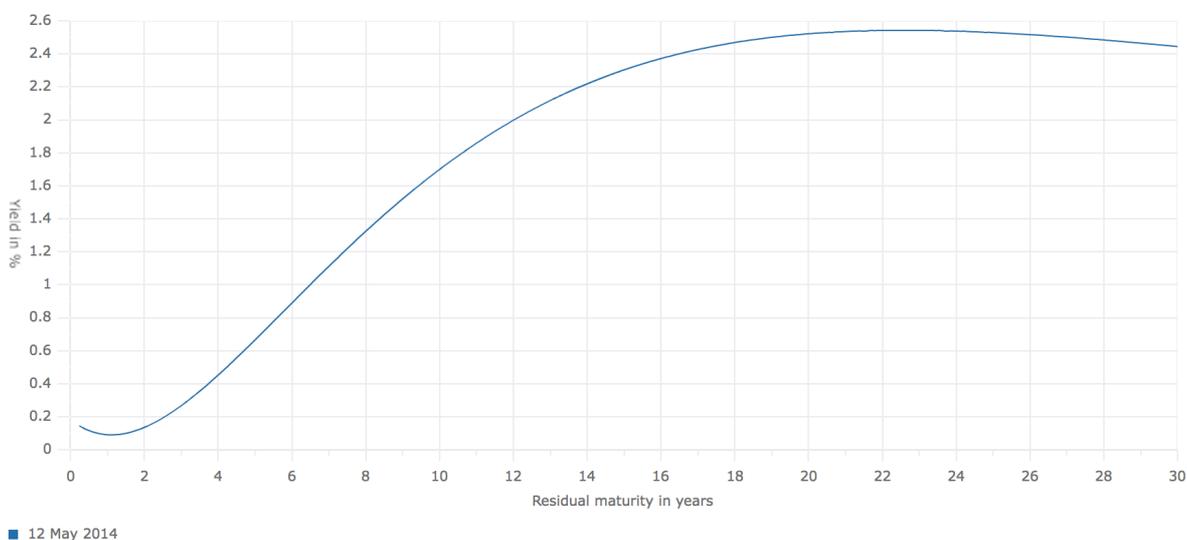
⁵⁷. Note that the ECB’s (controversial) role in the ‘Troika’ and its new supervisory responsibilities under the Single Supervisory Mechanism have significantly increased its influence on fiscal policy and on fluctuations in bank capital.

⁵⁸. A note on terminology: The interbank (money) market is the market for short-term lending between banks. Although it constitutes only one segment of the money market, some of the central bank documents quoted here use the term ‘money market’ as a short for ‘interbank money market’.

costs, tend to be passed on to the customers of those banks, this direct mechanism is but a sideshow in terms of the transmission of monetary policy. For what determines the yield of long-term bonds (as well as the interest rate of bank loans) is not so much current conditions, but *future expected conditions*. Most notably, these expectations concern future inflation rates and future short-term interest rates, as well as other risks associated with loans or bonds. Other things being equal, longer maturities imply greater risk – an adverse event, such as a default, is more likely to occur within ten years than within ten months. Therefore the remaining time to maturity is the crucial factor for the determination of the price and yield – which are inversely correlated – of a debt security. This relationship between the interest rate and the residual maturity of a debt security is referred to as the term structure of interest rates. Its visual representation, the yield curve, typically has an upward-sloping shape – reflecting higher risk premia for longer maturities – that flattens out at the ‘long end’ (see Figure 4).

The overnight interest rate controlled by the Eurosystem determines the interest rate at the ‘short end’ of the yield curve. It is through the manipulation of this rate that the central bank ignites the “transmission of monetary policy from the very short end of the money market to the real economy and prices” (ECB 2011g: 94). Just how exactly this transmission occurs has been the subject of longstanding debates among monetary theorists and econometricians. Surveys of the literature on this question usually distinguish between the traditional money view and the more recent lending view. Moreover, there is now a rapidly growing literature on the risk-taking channel of monetary policy transmission.

Figure 4: The yield curve for AAA-rated euro area central government bonds as published by the ECB on 12 May 2014



Source: ECB 2014a.

According to the traditional *money view*, the main effect of a rise in interest rates is a rise in the real rate of return, so that fewer investment projects look profitable, resulting in lower investment (Cecchetti 1995: 85).⁵⁹ Whereas the money view is associated with a neoclassical outlook, the *lending view* is non-neoclassical in that it accepts that credit markets feature certain ‘frictions’, such as imperfect and asymmetric information, as well as bankruptcy laws (Cecchetti 1995: 85-86; Boivin et al. 2010: 15). As a consequence, credit is rationed, and the ability of borrowers to obtain finance depends on the condition of their balances sheets. Three distinct transmission channels are generally subsumed under the lending view. The empirical observation that smaller firms, who cannot issue securities to finance investments, often depend on bank loans for outside financing, gives rise to the *bank lending channel*. A rise in

⁵⁹ Of course, consumption also reacts to changes in interest rates. See, for instance, Boivin et al. (2010: 12-14).

interest rates reduces such firms' access to loans as lending to them becomes relatively less attractive for banks (Cecchetti 1995: 86; Boivin et al. 2010: 17-18). The *bank capital channel* reflects the tendency of bank capital to be negatively correlated to movements in interest rates. Not only do asset prices decline as interest rates rise, but it also becomes more difficult for borrowers to pay back on their loans, both of which weakens the capital position of financial intermediaries, who respond by reducing their loan supply (Boivin et al. 2010: 18-20). The *balance sheet channel*, sometimes also called the financial accelerator (Bernanke et al. 1996), works through the balance sheets of non-financial firms. Here, a rise in interest rates reduces firms' net worth (both by increasing their nominal debt burden and by reducing their prospective sales), thus increasing their borrowing costs, which equally results in a decline of aggregate investment (Boivin et al. 2010: 20-21). Finally, with the notion of a separate "risk-taking channel", originally introduced by Borio and Zhu (2012), a third 'view' has recently risen to prominence in monetary economics.⁶⁰ Here, changes in interest rates and market expectations about their future path may alter "perceptions of risks and risk tolerance" of financial firms (Borio/Zhu 2012: 237). This channel has gained in importance as a result of "financial liberalisation and innovation", which have increased the responsiveness of credit creation to swings in risk perception, and therefore the impact of the latter on aggregate demand (Borio/Zhu 2012: 237).

The two key take-aways from this brief discussion of the transmission mechanism are that the relationships that link the short-term interest rate to the macroeconomic variables of output and inflation are constantly evolving, and that as a result of the

⁶⁰ Borio and Zhu's influential paper had originally been presented at an ECB conference in 2007 and had been published as a working paper of the Bank of International Settlement since 2008.

process of financialisation financial markets have become the driving force behind this evolution. An article in the ECB's Monthly Bulletin emphasises that the impact of variations in the short-term interest rate on other financial variables is determined by the structure of financial markets:

The magnitude, direction and timing of these changes will generally depend on the structure of financial markets and on the economic characteristics of market participants. In particular, the degree of competition, the liquidity of markets and the scope for arbitrage across different financial instruments will have a direct effect on financial and asset market linkages.

(ECB 2000a: 47)

One implication that follows from this pivotal role of financial market structure is that a major transformation in the financial system greatly increases policy-makers' uncertainty regarding the workings of the transmission mechanism. One of the most radical such transformation in monetary history occurred in 1999, when the authority over monetary policy shifted from eleven national central banks (NCBs) to the Governing Council of the ECB (ECB 2000a: 44). The single biggest difficulty faced by the latter was therefore that "information on the euro area monetary policy transmission mechanism was extremely limited" (Angeloni et al. 2003: 2). In 1999, the ECB therefore set up the Monetary Transmission Network, whose task was "to put together, in a reasonably short time, a comprehensive body of information on how the monetary policy of the newly created central bank would affect the economy of the 'euro area'" (Angeloni et al. 2003: 2). Reviewing the results from this project, an article in the Monthly Bulletin found that "[t]he high degree of bank dependence and the limited breadth of the stock and other financial markets in the euro area are conducive to the existence of possible credit channel effects" (ECB 2002a: 48). Overall, however, the data suggested that the effect of interest rate changes on investment behaviour of firms played a larger role for the transmission mechanism than credit channel effects (ECB 2002a:

48). Ten years later, a follow-up article studied how the euro area transmission mechanism had evolved. Making explicit reference to the above-mentioned literature on the “risk-taking channel”, the article highlighted a “dramatic expansion of securitisation activities and an increased reliance on market-based sources of funding”, which it described as “transformations in the financial system [that] may in fact have amplified the impact of monetary policy, in particular as regards its impact on risk-taking attitudes in the financial system” (ECB 2010a: 85, 89).⁶¹ At the same time, the article noted, “financial innovation tends to render the bank lending channel less effective under normal conditions” (ECB 2010a: 85, 89).

To be sure, among the causes bringing about these larger changes in the financial system, monetary governance is only one among many. The workings of the interbank market, however, are largely endogenous to monetary policy. In its efforts to establish and maintain control over the short-term interest rate in that market, the Eurosystem exerts a direct influence – both by purposeful design and through unintended consequences – on market institutions such as interest rate benchmarks, market transparency, or collateral regimes. These institutions, and thus the workings of the money market and of the transmission mechanism of monetary policy itself, are therefore best seen as performative effects of the Eurosystem’s quest for monetary governability in the sense in which Callon uses the term. By governing the money market through money, the Eurosystem’s quest for monetary governability performs certain institutions and structures in that market. As we shall see, however, what is actually performed is not necessarily the “self-regulating market mechanisms” on which the Eu-

⁶¹ A similar observation was made by an ECB watcher who pointed out that the highly leveraged nature of the financial system makes interest rate changes much more consequential. While not necessarily bad for the ECB, it would increase complexity and thus uncertainty (Interview 24).

rosystem, in the quote given at the beginning of this chapter, claims its “approach to monetary policy implementation relies” (ECB 2008d: 71).

The remainder of this chapter gives a detailed empirical account of the Eurosystem’s quest for monetary governability from 1999 to 2014 that covers the three elements of the financial apparatus described above – administrative authority, bank agency, and market structures.

3.2 The operational framework of the Eurosystem as of 1999

Although in common parlance the short-term interbank interest rate is most often described as the ‘instrument’ of monetary policy, it really is the Eurosystem’s *operational target* (Bindseil 2004: 9; Galvenius/Mercier 2011: 99). The three *instruments* used by the Eurosystem in pursuit of this operational target are reserve requirements, open market operations, and standing facilities, which will be discussed in turn below.⁶²

3.2.1 Minimum reserve requirement

Since the transition to a global fiat money standard in 1971, central bank money has replaced gold at the top of the ‘hierarchy of money’, in the sense that it constitutes “the only asset that simultaneously performs both a payment and a settlement function” (ECB 1999: 30).⁶³ Only the central bank can create central bank money, which exists as currency or as central bank deposits – also called ‘reserves’ – held by credit

⁶² By insisting on this difference between instruments and operational target the ECB explicitly distances itself from Poole (1970) and much of the subsequent literature in economics, where the terms ‘target’ and ‘instrument’ have been used interchangeably (Bindseil 2004: 9-10).

⁶³ The implications of this historic change will be explained in greater detail in chapter five. Note also that the terms ‘central bank money’, ‘central bank liquidity’, and ‘reserves’ are synonymous and will be used interchangeably in this text. For reasons that will become clear in chapter five, I avoid the term ‘base money’. ‘Outside money’ is yet another synonym and will be the preferred term in chapter five in order to emphasise the distinction between publicly created ‘outside money’ and ‘inside money’ created by private bank lending.

institutions.⁶⁴ The ability of the Eurosystem to control the short-term interbank interest rate is a direct result of its status as the *monopoly supplier* of central bank money in the interbank market (ECB 1999: 30). Crucially, however, the Eurosystem's control over liquidity conditions in the money market depends on the existence of a positive *demand* for central bank money. This is why it is best to begin the discussion of the Eurosystem's instruments with the minimum reserve requirement, which was defined as a 2% ratio applied to the liability base of a credit institution in 1998, and lowered to 1% in January 2012.⁶⁵

Credit institutions hold central bank money in order to settle debts amongst each other and to satisfy any demand for cash from customers who wish to withdraw money from their bank accounts.⁶⁶ The existence of these so-called 'autonomous factors' means that credit institutions' demand for central bank money will be positive even in the absence of a minimum requirement (Gray 2011: 6).⁶⁷ However, low demand for banknotes in the economy or a high level of net foreign assets owned by the central bank may lead to a situation in which the banking sector's demand for reserves falls short of the amount that the central bank wants to supply in order to achieve its inter-

⁶⁴ It is important to understand that unlike in the rest of the economy, where bank-created deposit money and cash enjoy equivalent status, interbank settlement happens through the transfer of reserves – money held in current accounts at the ECB or the NCBs. The money traded in the overnight interbank market is thus different from the money traded in other segments of the money market in that it is central bank money. Only credit institutions with a deposit account at the central bank can hold and trade this form of money.

⁶⁵ The liability base to which the reserve requirement is applied comprises overnight deposits, deposits with an agreed maturity of up to two years, deposits redeemable at notice of up to two years, debt securities issued with an agreed maturity of up to two years, and money market paper (ECB 2000c: 54).

⁶⁶ In the following, the terms 'bank', 'credit institution', and 'counterparty' will be used interchangeably.

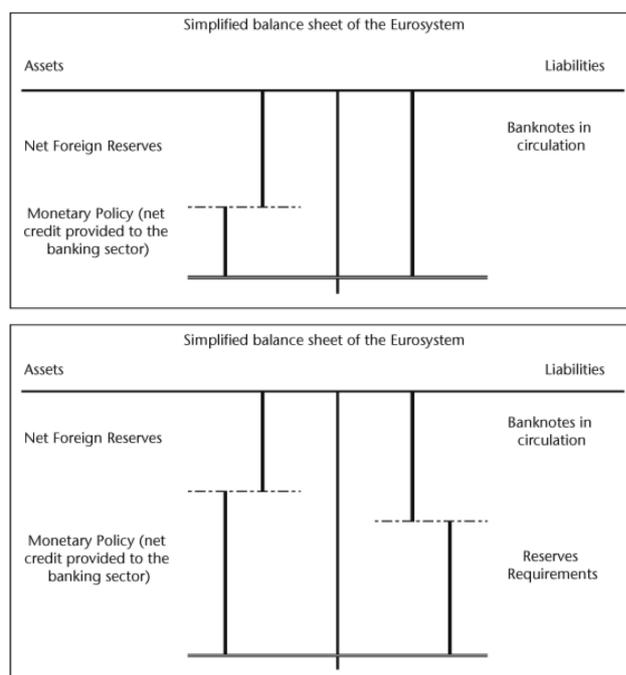
⁶⁷ Which is why a reserve requirement is not strictly necessary to create a structural liquidity deficit of the banking sector vis-à-vis the central bank. Some central banks – most notably the Bank of England – have therefore abandoned minimum reserve requirements altogether.

est rate target. As pointed out in an EMI staff paper, in 1994 the banking systems of seven EU countries – most notably those of Portugal and Greece – were in such a ‘structural surplus position’ (Escrivá/Fagan 1996: 6). Since under structural surplus conditions the central bank’s monopoly on central bank money remains ineffective as a tool to steer liquidity conditions in the money market, all of those seven countries had reserve requirements in place which in all but one case created an “ex-post shortage of liquidity in the money market” (Escrivá/Fagan 1996: 6). It was in light of this research that the EMI recommended a minimum reserve requirement for the purpose of “creating or enlarging a structural liquidity shortage” in the euro area banking system (EMI 1997).

The meaning and purpose of reserves and the reserve requirement are often misrepresented. The discussion in this section makes clear that the purpose of the 2% minimum reserve requirement of the Eurosystem is not – as often reported in the media – to make banks safer by forcing them to hold an alleged ‘liquidity buffer’ but to render the money market governable. The reserve requirement enlarges the banking sector’s demand for central bank money and thereby increases its dependence on central bank liquidity (Galvenius/Mercier 2011: 203). Since a credit institution needs to *borrow from* the central bank the reserves which it then *deposits at* the central bank in order to meet the minimum reserve requirement, the effect of that requirement in accounting terms is to increase both sides of the Eurosystem’s balance sheet, as is illustrated in Figure 5.⁶⁸

⁶⁸ It is important to note, however, that the notion that minimum reserve requirements “act as an automatic constraint on the money creation process” (Bundesbank 1990: 22), although advocated in this instance by the Bundesbank itself, is not, strictly speaking, correct. Instead, “reserve requirements place an automatic obligation on [in this case] the Bundesbank to supply reserves whatever the extent of deposit growth” (Schnadt 1994: 88). Although “central banks may, and indeed do, choose to raise

Figure 5: How the minimum reserve requirement increases the dependency of the banking system on ECB liquidity and enlarges the balance sheet of the Eurosystem



Source: Galvenius/Mercier (2011: 202).

In essence, then, the imposition of a minimum reserve requirement guaranteed the effectiveness of the monopoly of the Eurosystem over central bank money, thereby establishing a crucial condition of governability. In the eyes of policy-makers, this advantage outweighed “the potential burden which [the requirement] imposes on the private sector and the effects it might have on the financial activity of credit institutions in the euro area” (ECB 1998c). Two features of the minimum reserve regime are designed to minimise this burden (which arises from banks having to hold some of their assets in the form of low-yielding central bank reserves). Firstly, the ‘averaging provi-

the interest rate(s) at which they will supply reserves”, they do not have discretion over whether or not to satisfy banks’ demand for such reserves. Today, the endogeneity of the (base) money supply is widely acknowledged in central bank circles (Bank of England 2014a, b). Chapter five will discuss this issue in greater detail.

sion' allows banks to balance liquidity deficits on some days with liquidity surpluses on other days, thus meeting their minimum reserve requirement *on average* over a four-week reserve maintenance period. The purpose of this averaging provision is to allow credit institutions “to smooth out daily liquidity fluctuations” and thus “to stabilise money market interest rates” (ECB 2011g: 101). Secondly, banks' reserve holdings at their NCBs are remunerated at the average – over the maintenance period – interest rate of the main refinancing operations (ECB 2011g: 102). These liquidity-providing ‘open market operations’ constitute the second instrument in the Eurosystem's operational toolkit.

3.2.2 Open market operations

One of the first staff papers of the EMI studied the use of open market operations in EU countries, which it found to be widespread (Aspetsberger 1996: 2). The paper highlighted the provision of refinancing to the banking system and the influencing of interbank interest rates in line with the monetary policy stance as the key functions fulfilled by open market operations. Central banks use these operations to regulate the amount of central bank money in the banking system by lending against securities in the ‘open market’. In the Eurosystem, open market operations are conducted in a decentralised manner by the national central banks. Thus, when lending against collateral to bank A, an NCB would credit A's account, thereby increasing the amount of central bank money in circulation. Inversely, when selling securities to bank B in a liquidity-absorbing operation, an NCB would debit B's account, thereby reducing the amount of central bank money in circulation. Partly due to this decentralisation, the ECB allows a large number of counterparties access to its refinancing operations.

While in principle all banks subject to the reserve requirement are eligible, in practice only about 10% – between 700 and 800 banks in mid-2000 – actually participate directly in the refinancing operations (ECB 2000d: 42).⁶⁹

The most important of the four types of open market operations available to the Eurosystem are the weekly ‘main refinancing operations’ (MROs).⁷⁰ Their purpose is to regulate the liquidity conditions in the interbank market so as to align the market interest rate for overnight lending with the ‘main refinancing rate’, which is the Eurosystem’s main policy rate.⁷¹ In practice, MROs take the form of ‘reverse transactions’, whereby the Eurosystem lends to its counterparties against collateral – either in the form of a collateralised loan or under a repurchase agreement (‘repo’).⁷² The maturity of these weekly operations was two weeks at first and was reduced to one week in March 2004. In accordance with the Eurosystem’s principle of decentralisation, these operations are conducted by the NCBs while being coordinated by the ECB. Importantly, their purpose is twofold. On the one hand, MROs serve to satisfy the demand of the banking sector for central bank money. In the interest of the smooth operation of the interbank market this demand – part of which is a direct consequence of the

⁶⁹ In contrast, the Fed conducted open market operations with only a small number of ‘primary dealer’ banks (Blencck et al. 2001: 32).

⁷⁰ The other categories are longer-term refinancing operations (LTROs), fine-tuning operations, and structural operations (the latter have not been used so far). Conducted on a monthly basis, LTROs provide additional liquidity to the banking sector, generally with a three-month maturity. Fine-tuning operations can be liquidity-providing or liquidity-absorbing. Since their purpose is “to smooth the effects on interest rates caused by unexpected liquidity fluctuations in the market” (ECB 2000c: 5), neither their frequency nor their maturity are standardised.

⁷¹ Between 2000 and 2008, when the Eurosystem provided liquidity to the banking system via *variable rate* tenders, the ‘minimum bid rate’ assumed the signalling function previously fulfilled by the main refinancing rate (for more details, see section 3.3.2 below).

⁷² In an MRO that takes the form of a loan, the counterparty pledges securities as collateral. Under a repurchase agreement (‘repo’), the Eurosystem buys securities from a counterparty, who in turn commits itself to buying them back at maturity at a slightly higher price. This difference between the purchase and the repurchase price – the repo rate – constitutes the interest accruing to the Eurosystem. Repo is also the standard form of lending in the interbank market.

minimum reserve requirement – is generally accommodated by the Eurosystem.⁷³ What varies, on the other hand, are the “conditions under which it is willing to enter into transactions with credit institutions” (ECB 2011g: 94) – that is, the interest rate that the Eurosystem charges its counterparties for central bank liquidity. This rate varies as the Eurosystem uses it to signal its monetary policy stance. By increasing the main refinancing rate, the Eurosystem raises the price of reserves and thus banks’ operating costs. Such a rise in the main refinancing rate ripples through the various channels of the transmission mechanism of monetary policy, leading to higher interest rates on long-term loans, which slows down investment and thereby reduces aggregate demand and employment, and, ultimately, the inflation rate.

3.2.3 Standing facilities

While the minimum reserve requirement is designed to make sure that the banking sector’s demand for central bank money is positive, the effectiveness of the MROs in steering the overnight interest rate is further bolstered by the third instrument in the toolkit of the Eurosystem, the standing facilities. In addition to the open market operations, which are conducted at regular intervals at the initiative of the Eurosystem, the latter also provides a marginal lending facility and a deposit facility, which are used at the initiative of the counterparties. If at the end of a trading day a bank ends up with more reserves than it is required to hold, it is free to transfer these ‘excess reserves’ from its NCB account – where the required part of their reserves is remunerated at the main refinancing rate – to the deposit facility of the ECB, where they are remunerated

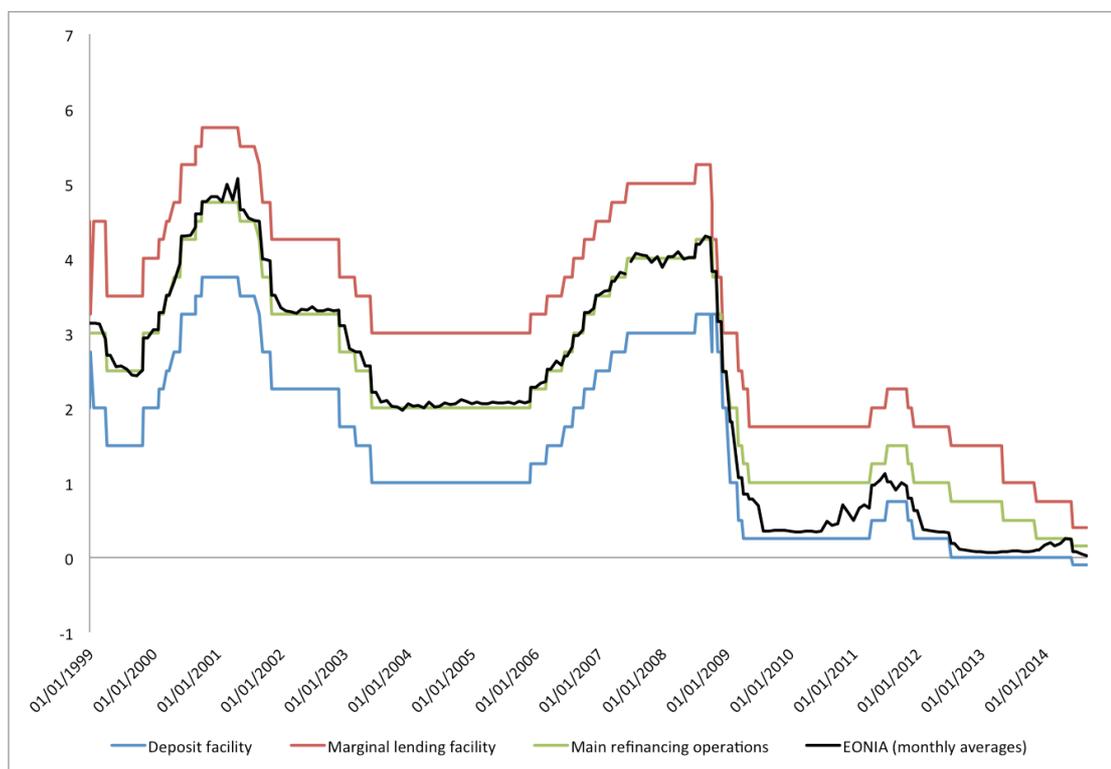
⁷³. Until 2008, the ‘allotment amount’ of each MRO was predetermined by the Eurosystem on the basis of its own forecast of the liquidity needs of the banking sector over the following reserve maintenance period. As will be shown in section 3.3.2 below, there were instances of ‘overbidding’, in which counterparties’ demand for liquidity was *not* accommodated by the Eurosystem.

at the (punitively lower) ‘deposit rate’. Conversely, a bank facing a liquidity shortage has the option of borrowing overnight from the marginal lending facility at the (punitively higher) ‘marginal lending rate’. At all times, the ECB keeps the deposit rate slightly below, and the marginal lending rate slightly above the main refinancing rate.

While in normal times the interbank market, in principle, makes these facilities redundant, they do provide a backstop mechanism to avoid short-term imbalances in the interbank market. At the end of each trading day, a bank is likely to hold either more or less reserves than it is required or than it wishes to hold. It is the trading in these reserves that constitutes the overnight interbank market – bank A ends up with a liquidity surplus, which it therefore lends overnight to bank B, who faces a liquidity shortage. The benchmark that tracks the interest rate of those transactions is the Euro OverNight Index Average (EOINA).⁷⁴ Under normal circumstances this interest rate never strays far from the Eurosystem’s main refinancing rate because the latter is flanked by the rates of the two standing facilities, which provide a corridor within which the overnight market rate fluctuates (Galvenius/Mercier 2011: 210). Bank A would not lend its surplus reserves to bank B at a rate *below* the deposit rate, but would instead chose to hold them in the deposit facility. Conversely, rather than borrowing from bank A at a rate *above* the marginal lending rate, bank B would take recourse to the marginal lending facility. Figure 6 shows that on EOINA has rarely deviated far from the centre of the corridor, defined by the main refinancing rate – with the exception of the most recent period of high excess reserves, during which EONIA fell to the ‘floor’ of the interest rate corridor (see section 3.3.3).

⁷⁴ See section 3.3.2 for further details on EONIA.

Figure 6: Illustration of the ECB’s corridor approach: Key interest rates and EONIA, January 1999 - August 2014



Data source: ECB Statistical Data Warehouse

3.3 Governing through money in good times and in bad

The previous section was concerned with the administrative measures and the open market operations through which the Eurosystem performs both the supply of and the demand for central bank money. The present section deepens this analysis by focusing on the two elements of the financial apparatus that have undergone the most dramatic transformations in the context of the recent 2008-12 banking and sovereign debt crisis – the collateral framework and the concrete tender procedures through which open market operations are conducted. In doing so, the remainder of this chapter documents the Eurosystem’s efforts to establish and maintain the “well-functioning, self-

equilibrating money market” upon which, according to the statement quoted at the beginning of this chapter, “the Eurosystem operational framework is predicated” (Gaspar et al. 2001: 327). For the Eurosystem’s operational target being the market price for overnight liquidity that is determined by the interplay of supply and demand for central bank money in the interbank market, its ability to signal its monetary policy stance depends on the ‘cooperative’ behaviour of the money market. This behaviour, in turn, is a performative effect of the financial apparatus of monetary policy implementation. The remainder of this chapter provides a detailed analysis of what it took – and takes – for the Eurosystem to perform such a ‘cooperative’ euro area money market. Crucially, however, it also shows how the financial apparatus ‘compensated’ for the collapse of the money market during the recent financial crisis. The first two sub-sections trace the evolution of the collateral framework and the tender procedures since the beginning of Stage 3 of EMU. The final sub-section explores the implications of these developments for our understanding of central bank agency and monetary governability.

3.3.1 Contested collateral: The evolution of the collateral framework, 1999-2014

The Eurosystem grants all credit institutions in the euro area that are subject to the minimum reserve requirement access to its open market operations, and thus to central bank liquidity. While this followed naturally from these credit institutions’ obligation to fulfil the reserve requirement, defining which assets would be eligible as collateral in open market operations proved to be “the most complex issue in establishing the Eurosystem monetary policy framework” (Galvenius/Mercier 2011: 174). In order to deal with this issue, the Monetary Policy Sub-Committee of the Committee of Gov-

ernors⁷⁵ set up a “Task force on eligible debt instruments for mobilization and pledging” (TFIMP) (Galvenius/Mercier 2011: 174). The starting point for the TFIMP was the requirement of Article 18.1 of the ECB Statute that all lending operations of the Eurosystem be “based on adequate collateral”. This left open, however, a number of important issues ranging from eligibility criteria and risk control measures to the cross-border use of collateral.

In terms of market organisation, the first challenge faced by the TFIMP was to make sure that the supply of eligible collateral would be adequate to allow credit institutions to satisfy their demand for liquidity at the beginning of Stage 3 of EMU. Even though the TFIMP’s efforts to estimate this demand were complicated by uncertainty about which countries would eventually join the euro area and about whether or not a minimum reserve requirement would be implemented, the TFIMP forecasted a safe margin of 12 to 1 for the ratio of the volume of eligible assets to the estimated demand for liquidity (Galvenius/Mercier 2011: 177). Even if in the aggregate collateral was abundant, however, large cross-country variations in the availability of different types of assets meant that eligibility criteria would affect national banking systems differently. For instance, covered bonds issued by German credit institutions (‘Pfandbriefe’) constituted a large pool of high-quality assets that could hardly be denied eligibility (Galvenius/Mercier 2011: 184). The key issue at stake was that cross-national variance in the abundance of eligible collateral would translate into cross-national variance in the access to central bank liquidity, which in turn would impact directly on

⁷⁵. The ‘Committee of Governors of the Central Banks of the Member States of the European Economic Community’ was established in 1964 and served as the central forum for communication and coordination between European central banks until 1993, when it became the basis for the EMI (James 2012: 20).

a national banking sector's relative competitiveness. This was not merely a theoretical scenario – as pointed out by Otmar Issing, many countries were not used to the German model of liquidity provision against collateral at all: “In Spain, for instance, banks were having problems because they did not have enough collateral” (CB Interview Issing). Therefore, the need for cross-national harmonisation had to be reconciled with continuity within national banking systems and non-discrimination against varying financial conventions and traditions.

The solution suggested by the TFIMP was a two-tier system, composed of a union-wide tier-one list and a tier-two list containing assets selected by national central banks according to existing national practices. Originally conceived as a transitory solution that would quickly be succeeded by a unified framework, the two-tier system remained in place until early 2007 (Eberl/Weber 2014: 9). Its key feature was that it combined harmonisation with a layered risk-sharing model. On the one hand, assets from the tier-two list of any country could be used as collateral in transactions with the NCB of any country. On the other hand, the risk associated with any tier-two asset was borne by the NCB that had included the asset on its national tier-two list.⁷⁶

The key axis of collateral contestation, however, is not between countries, but between the Eurosystem and its private sector counterparties. The following account of the evolution of the collateral framework is therefore couched in terms of the concrete

⁷⁶ Differences with regard to the national legal frameworks governing the use of collateral in open market operations continued to exist also in Stage 3. For instance, the Bundesbank combines collateralised loans with a “pooling system” in which the pledged securities are ‘anonymous’, so that in case of a counterparty default the Bundesbank has access to any asset in the collateral pool. The Bank of Ireland, on the other hand, uses repos for its liquidity operations, which involves an “earmarking system” with “a clear link between the cash side and the collateral side” (CB Interview 11). However, as emphasised by the same Bundesbank economist, legal and technical differences between countries are unproblematic as long as they “do not interfere with the economic effects”: “The important thing about monetary implementation in a currency union is that the economic effect is the same everywhere.”

material interests of these two sides, rather than in terms of purely technocratic considerations. According to the ECB, the fundamental “trade-off” of its collateral policy is between an eligible asset base that is “broad enough to ensure that sufficient instruments are available to collateralise the credit operations with the central bank” and the “desire for operational efficiency and simplicity” (ECB 2001b: 59). Credit institutions, on the other hand, tend to prefer a widening of the collateral base, as this facilitates their access to central bank liquidity. Moreover, issuers and owners (which also includes credit institutions) of financial instruments have a stake in seeing their securities added to the list of eligible collateral, as this is likely – other things being equal – to increase demand for these securities. For the Eurosystem, on the other hand, the chief consideration regarding the collateral framework is risk control. In the course of providing liquidity via open market operations, the Eurosystem assumes a credit risk. While this risk is minimised by the above-mentioned statutory requirement that all open market operations be “based on adequate collateral”, the securities that serve as collateral are not, of course, risk-free – which is why they are subject to a host of eligibility criteria. The difficulty of formulating these criteria in a way that balances the goals of risk control and ready availability of collateral – and thus easy access to central bank liquidity – is illustrated by the fact that the rules governing the use of collateral have seen more modifications than any other element of the Eurosystem’s operational framework (Eberl/Weber 2014).

At the outset, the Eurosystem adopted a detailed set of rules that specified the range of eligible tier-one assets. Among those rules were the requirements that eligible assets had to be debt instruments (as opposed to equities), denominated in euro, issued (or guaranteed) by entities established within the EEA, and not issued or guaran-

ted by the counterparty itself or by an entity with “close links” to the counterparty (ECB 2000c: 39). Secondly, assets had to be “marketable”, that is, “listed or quoted on a regulated market as defined according to the Investment Services Directive, or listed, quoted or traded on certain non-regulated markets as specified by the ECB” (ECB 2000c: 39).⁷⁷ Finally, tier-one assets had to satisfy “high credit standards”, mainly in the form of a minimum rating by the big international credit rating agencies. The Eurosystem’s minimum eligibility criteria for tier-two assets were broadly similar but allowed for non-marketable assets and equities. The specific criteria were defined by each NCB individually.

Within this initial collateral framework, market mechanism played a key role, especially with regard to the determination of the risk associated with different types of collateral. In one revealing (pre-crisis) episode, money market participants expressed surprise that the Eurosystem, in its open market operations, did not impose higher haircuts for Greek government bonds than for German bonds (CB Interview 5). But haircuts were calculated on the basis of market valuations, which at the time were the same for Greek and for German bonds. My interview partner summed up the ECB’s position vis-à-vis its counterparties as follows: “Look, this is not our fault, this is your price. You probably underestimate the risk.” At the same time, the Eurosystem made sure to preserve the leeway for discretionary decisions. For instance, it did not initially publish the precise rating thresholds for eligible collateral, so as to preserve for itself the prerogative of deviating from them, thus limiting the power of the rating agencies (Galvenius/Mercier 2011: 183).

⁷⁷ This excluded assets such as bank loans, trade bills, or mortgage backed promissory notes (ECB 2001b: 50).

As recently shown by Eberl and Weber (2014), the original collateral framework was changed and amended at least 96 times between 2001 and 2014. While the majority of these changes (71) fall into the post-Lehman period, the ‘single list’ that replaced the two-tier system was introduced already in 2007.⁷⁸ With regard to the respective preferences of the Eurosystem and its counterparties it is important to note that almost without exception these changes aimed at softening the eligibility criteria, and thus at broadening the collateral base. Indeed, the main thrust of the responses to the public consultation of the Eurosystem that preceded the introduction of the single list was that the future list should be broader. The ECB summarised the responses as follows:

Nearly all respondents request that the new single list of collateral encompass more collateral than the current tier 1 list. Indeed, most respondents are of the view that the volume of the single list should be at least equal to the tier 1 and tier 2 volumes combined. Furthermore, most market participants request more collateral than is currently eligible and suggest, in particular, that new categories of collateral be included. They argue that the new collateral policy should cater for the increasing use of collateral in “a changing global payments environment” and of payment and securities clearing and settlement systems.

(ECB 2004b: 2)

Largely following market participants’ preferences as expressed during the public consultation, the single list made bank loans – which had hitherto been included only in the tier-two lists of individual countries – generally eligible. Concurring with the assessment of the respondents to its consultation, the ECB explained this decision by the “increasing collateralisation in private wholesale markets markets and relatively

⁷⁸. Although the single list had long been anticipated, it still constituted a major break: “In terms of history and practices that was quite a big step, because there were specific assets that were accepted in some jurisdictions and accepted by the central bank, which were not accepted any longer” (CB Interview 10).

high consumption of collateral by the Eurosystem”, which together implied “competing demands on the collateral holdings of banks” (ECB 2006: 76).

The watershed moment for the collateral framework, however, was not the administrative introduction of the single list in 2007 but the collapse of Lehman Brothers in September 2008. In other words, the financial apparatus governing the interaction between the Eurosystem and the money market was affected most strongly not by an administrative change, but by a shift in market structure. Namely, the downgrading of *private* (mortgage-backed) securities in the wake of the subprime crisis and of *sovereign* bonds in the wake of the euro area debt crisis significantly reduced the availability of high-quality collateral in the financial system – to the point where an increasing number of economists and market participants spoke of a ‘collateral squeeze’ (Singh 2011; Singh/Stella 2012; Credit Suisse 2012).

In reaction to Lehman, the Eurosystem initially extended the list of eligible securities and, more controversially, lowered the credit rating threshold for all marketable and non-marketable assets from A- to BBB- (ECB 2008b).⁷⁹ At the end of 2009, the overall volume of marketable assets that had become newly eligible as a result of these measures was estimated at €1.4 trillion (ECB 2013f: 74). Crucially, although the lowering of the rating threshold to BBB- had originally been announced as a “temporary expansion of the collateral framework”, intended to be phased out towards the end of 2009, it was subsequently integrated into the permanent collateral framework (ECB 2010b).⁸⁰ When the crisis spilled over into the sovereign bond market, the Eu-

⁷⁹. This excluded only Asset Backed Securities (ABS). The rating requirement for most types of ABS was lowered to ‘triple B’ in June 2012, whereby a valuation haircut of 26% applied (ECB 2012e).

⁸⁰. In order to compensate for the higher risk associated with accepting lower-quality collateral in its open market operations, the Eurosystem introduced “a schedule of graduated valuation haircuts to the assets rated in the BBB+ to BBB- range” – meaning that lower-quality collateral would henceforth

rosystem suspended the minimum credit rating requirement “of marketable debt instruments issued or guaranteed by” the governments of Greece, Ireland, Portugal, and Cyprus (ECB 2010d, 2011a, f, 2013a). In September 2012, the applicability of this exemption was generalised to all states “that are eligible for Outright Monetary Transactions or are under an EU-IMF programme” (ECB 2012f). Moreover, in February 2012, the NCBs of seven countries followed up on a previous decision of the Governing Council that allowed them to formulate, as a temporary measure, specific national collateral eligibility frameworks (ECB 2012a).⁸¹ The primary purpose of this change was to allow NCBs to accept unsecured loans – so-called ‘credit claims’ – as collateral from their national counterparties (ECB 2012c: 29).

The aggregate effect of these measures was considerable. Between 2007 and 2012, the total nominal value of all eligible marketable assets increased by 47%, to just under €14 trillion (ECB 2013f: 76). While the total volume of non-marketable assets – which most notably include credit claims – is not generally known by the Eurosystem, their share in the total collateral pool pledged by counterparties rose from 10% to 26% (ECB 2013f: 81). This represented the largest increase of any single asset class, which suggests that allowing NCBs to define their own eligibility criteria significantly eased the collateral constraint for their national banking systems.⁸²

Concluding this section, it is important to emphasise that the loosening of collateral eligibility criteria that followed the failure of Lehman Brothers did not occur out of

‘buy’ less central bank liquidity (ECB 2010b).

⁸¹. These were the NCBs of Austria, Cyprus, France, Ireland, Italy, Portugal, and Spain (ECB 2012c: 29).

⁸². The *aggregate impact* of central bank liquidity provision can be measured by looking at the share of total bank assets financed by Eurosystem liquidity. For the banking sectors of Ireland, Portugal, and Spain this share was roughly 10 per cent at the end of September 2012, while the number for Greece was 30 per cent (Van Rixtel/Gasperini 2012: 21-22).

the blue. Instead, this section has shown that the tendency for the financial apparatus to broaden the collateral base had existed already before 2008. This reflects the interest of private sector issuers and owners of securities to see *their* securities be included as eligible as collateral in the Eurosystem's refinancing operations. It was, however, only after 2008 that these 'politics of collateral' became more openly, and publicly, contested. Most notably, the overall decline of the quality of collateral used in Eurosystem refinancing operations was a cause for major concern, especially in Germany. It was strongly criticised in the media by economist Hans-Werner Sinn (2011d, 2011c, 2011e), and the daily broadsheet *Die Welt* featured a lengthy investigative report on the subject.⁸³ Moreover, the issue of collateral quality featured prominently in the ECB proceedings before the Constitutional Court (see also chapter six).

Yet the collateral framework was not the only aspect of the financial apparatus of the Eurosystem that has undergone significant changes – so have the rules and procedures of the Eurosystem's tender operations, which will be examined in the following subsection.

3.3.2 From supply-driven to demand-driven liquidity provision: The evolution of the tender procedures of the Eurosystem, 1999-2014

From the very beginning of the post-Maastricht preparations for Stage 3, the integration of the interbank market was identified by the Monetary Policy Sub-Committee of the Committee of Governors as a crucial prerequisite for a single monetary policy

⁸³ The report concerned the inclusion of "debt instruments issued by credit institutions, which are traded on the accepted non-regulated markets" (ECB 2008b). Indeed, although implemented in October 2008, this was not an ad hoc crisis-management decision but had long been lobbied for the European Banking Federation and the STEP (Short Term European Paper) Initiative, whose members had "invested a lot of effort towards this new development for the last two years" (European Banking Federation 2008). For a critical analysis, see Sinn (2014: 160-113).

(Galvenius/Mercier 2011: 196). One of the key steps in this direction was the establishment of suitable benchmarks that would be calculated for the euro area as a whole. Interestingly, the initiative in this matter came from the private sector – namely, from the Financial Markets Association (or Association Cambiste Internationale, ACI) and the European Banking Federation (EBF), who proposed the *Euro OverNight Index Average* (EONIA) to measure the overnight interbank interest rate of the euro area (Galvenius/Mercier 2011: 196). This proposal depended on the support of the ECB, who would, on a daily basis, gather the data on all unsecured overnight lending operations undertaken by a reporting panel of banks, and calculate the benchmark rate.⁸⁴

When the ECB published the new benchmark for the first time on 4 January 1999, EONIA replaced the national money market benchmark rates of individual member countries. In some countries, however – including Ireland and Finland – a comparable benchmark did not exist (EBF 2014). The reason for this was, as one senior ECB economist put it, that prior to Stage 3 “in some countries there was no money market [...] this segment was missing, in the way we consider it today” (CB Interview 7). The primary reason why it was essential for the Eurosystem to make sure that such markets were up and running at the beginning of Stage 3 was that it had to fulfil the function of “a redistributor of central bank liquidity” (CB Interview 8). This was necessary because only a small subset of the 8000 potential counterparties did actually participate in the open market operations of the Eurosystem, which therefore “relied heavily on that subset to organize the redistribution of the borrowed liquidity” (Galvenius/Mercier 2011: 209). In mid-2000, for instance, only between 700 and 800 credit insti-

⁸⁴ The panel reporting EONIA rates consists of the most active banks in the euro overnight interbank market. At the time of writing the panel includes 35 banks.

tutions submitted bids for the main refinancing operations (ECB 2000d: 42). It was feared that unequally distributed access to central bank liquidity might undermine the ECB's overriding goal of implementing the same overnight interbank rate across all euro area member countries.

As it turned out, however, the “home bias” that existed initially in the German money market was quickly eliminated (CB Interview 11) and German banks (among others) soon effectively “acted as liquidity providers for the banks of other countries” that had less previous experience with the type of liquidity providing operations conducted by the Eurosystem (CB Interview 7). Considering these uncertainties, it is the consensus view among participants and observers that the operational framework of the Eurosystem performed surprisingly well during the phasing in of the euro – EONIA showed low volatility while tracking the main refinancing rate closely, as shown in Figure 6 above (Issing et al. 2001: 122).⁸⁵

It was at the practical level of the actual tender operations where two unanticipated problems soon became evident – the problems of ‘overbidding’ and ‘underbidding’ by the counterparties in the Eurosystem’s main refinancing operations. In other words, *demand* for central bank money behaved in a way that reduced the governability of the money market. Such unbalanced bidding behaviour occurred when counterparties expected the main refinancing rate to change *within* the prevailing maintenance period. During the first half of 2000 market participants were expecting a rate hike to be imminent, which pushed short-term money market rates – such as the 3-months

⁸⁵. During the first three weeks of January 1999, the Eurosystem took the “emergency precaution” of keeping the corridor between the deposit and the marginal lending rates exceptionally narrow at 0.5%, widening it to 2.5% on 22 January (Issing et al. 2001: 121).

benchmark rate EURIBOR – well above the rate of the Eurosystem’s main refinancing operations (ECB 2000d: 37-38). Banks therefore had a strong incentive to obtain the largest possible amount of reserves at the earlier MRO rather than at the following one, at which the cost of reserves was expected to be higher.⁸⁶ Since initially the tender operations of the Eurosystem were designed as fixed-rate tenders – meaning that the price for central bank liquidity was fixed, irrespective of the level of demand – banks’ bids for liquidity escalated during the first half of 2000. The total volume of the MROs being fixed in advance by the Eurosystem, the ‘allotment ratio’ – the ratio between the amount allotted in the tender and the total amount of bids – decreased from an average 10% in 1999 to below 1% in May and June 2000 (ECB 2000d: 37). In order to address this problem, the Eurosystem in June 2000 switched to a variable-rate tender procedure. More complicated than the fixed-rate procedure, it was explained in the monthly bulletin as follows:

Eligible counterparties may submit bids for up to ten different interest rate levels. In each bid they state the amount they are willing to transact with the Eurosystem and the respective interest rate. Bids at a rate below the minimum bid rate are discarded. In the allotment the ECB lists bids from the highest to the lowest offered rate. The bids with the highest interest rates are accepted first and bids with successively lower rates are then accepted until the total liquidity to be allotted is exhausted. If, at the lowest interest rate level accepted (i.e. the marginal interest rate), the aggregate amount bid exceeds the amount still to be allotted, this will be allocated pro rata among the bids.

(ECB 2000d: 38)

Under the new procedure, the monetary policy stance – which had hitherto been signalled by the fixed rate of the main refinancing operations – was signalled by the “minimum bid rate” at which counterparties started their bidding (ECB 2000d: 38).⁸⁷

⁸⁶ It must be remember that the averaging provision allows banks to balance reserve shortages on some days by holding surplus reserves on other days of the maintenance period.

⁸⁷ In light of the switch to a fixed-rate *full*-allotment tender procedure in 2008 it is important to emphasise that this was a variable rate *fixed*-allotment procedure, whereby the decision over the total amount of liquidity that was provided remained under the discretion of the Eurosystem.

Moreover, in order to facilitate counterparties' now more complex task of preparing their bids, the Eurosystem began to publish its weekly forecast of the aggregate liquidity needs of the banking system (ECB 2000d: 38).

While this solved the problem of overbidding, the Eurosystem soon encountered the reverse problem. Underbidding is defined as a situation in which the liquidity that counterparties acquire in open market operations proves insufficient for them to fulfil their minimum reserve requirement at the end of the reserve maintenance period. Banks that expect the ECB to lower its main refinancing rate may speculate on being able to satisfy their minimum reserve requirement at a lower price at the following MRO. Indeed, in all but one of the nine episodes of underbidding between January 1999 and June 2003, “the underbidding occurred in an environment of high expectations of an imminent reduction in the key ECB rates, of which there were eventually five” (ECB 2003a: 48). These episodes showed that the previous switch from fixed-rate to variable-rate tenders did not address the root cause of unbalanced bidding behaviour, which was the misalignment between the reserve maintenance period and the Governing Council's meeting schedule: New reserve maintenance periods would start on the 23rd or 24th of a month, whereas the Governing Council would decide on its monetary policy stance at the first of its bi-monthly meetings, held either on the first or the second Thursday of the month. Therefore, when the Eurosystem's key interest rates moved they would do so *within* the reserve maintenance period (ECB 2003a: 43), leaving open the possibility of cheaper liquidity at the following MRO. The result was not only underbidding in the MROs, but also greater volatility of EONIA – in other words, a loss of control of the central bank over its operational target.

These problems were addressed by two changes to the operational framework that came into effect in March 2004. Firstly, the maturity of the MROs was reduced from two weeks to one week. Secondly, the reserve maintenance periods were aligned with the meeting schedule of the Governing Council, or, more precisely, with the settlement day of the MRO following the Governing Council meeting (ECB 2003a: 41). One senior ECB economist who was involved in the process explained explained the changes as follows:

So what we did was actually to align the length of the maintenance period with the meetings of the Governing Council. Now the Governing Council meets on a Thursday, takes a decision, but the decision will be implemented only the following Tuesday, when the next maintenance period will start, meaning there will be no interference with the current maintenance period, because there will be no change in the interest rate. ... The effect was that after that we did not experience any overbidding or underbidding stemming from expectations of interest rates, because we were able to isolate maintenance periods from expectations of interest rates – so yes, it was extremely successful.

(CB Interview 10)

These adjustments to the financial apparatus of monetary policy implementation were designed to adjust market demand for central bank liquidity in a way that would allow the Eurosystem to cope with the key challenge arising in the context of implementation – the alignment of the overnight market rate with the minimum-bid rate of the its MROs. In the case of the 2004 changes to the operational framework this was achieved by two simple adjustments to the timing of liquidity operations that aimed at “neutralising the impact of interest rate change speculation” on the market rate of interest (ECB 2003a: 51).

This episode also illustrates that the discretion of the ECB to implement such operational changes is limited. On top of the two changes just described, the initial public consultation included as a third item on the agenda the phasing out of the Eurosys-

tem's Long-Term Refinancing Operations (LTROs). As the same ECB staff member explained:

At the same time we wanted to discontinue the long-term refinancing operation because ... it plays no role for signalling monetary policy because it's just ... a kind of service that we provide to banks – to those banks, for instance, who don't have very active liquidity management and who are happy with refinancing on a monthly basis. And we wanted to discontinue that, but a lot of small banks I would say were against it, so we kept it. ... And it turned out to be quite good, because we had that during the financial crisis.

(CB Interview 10)

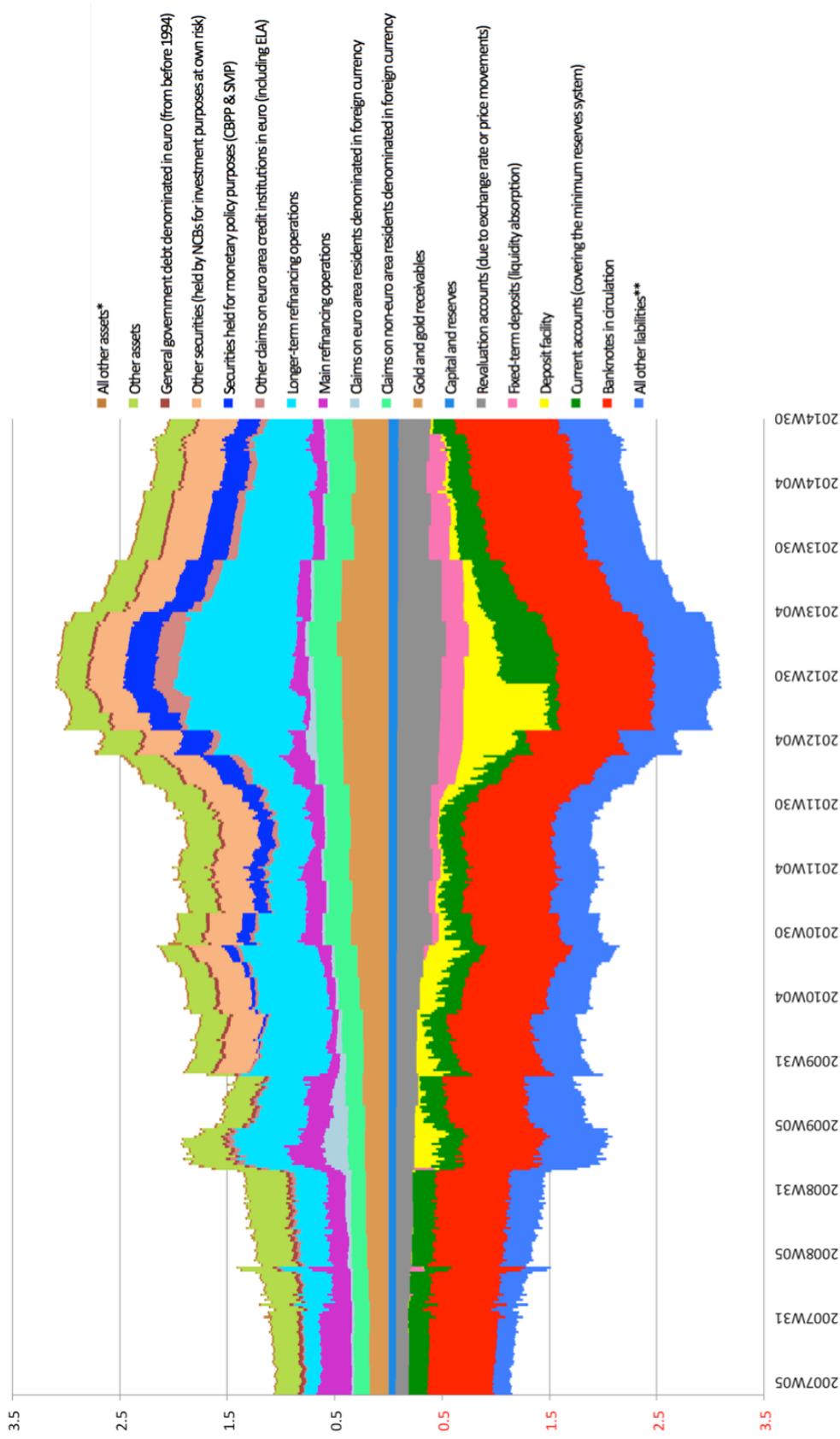
This clearly shows that, as in the case of the collateral framework, counterparties have their say when it comes to the operational details of monetary governance.

The most consequential change to the way in which the Eurosystem conducted its refinancing operations, however, occurred in the context of the financial crisis. In reaction to the collapse of Lehman brothers, the Governing Council announced that all future main refinancing operations would be carried out through a “fixed rate tender procedure with full allotment” (ECB 2008c). After the initial fixed rate tenders with *fixed* allotment, which were replaced in 2000 by the *variable* rate procedure with fixed allotment, the key element of this third type of tender procedure adopted by the Eurosystem was that it did no longer impose a limit to the total amount of liquidity provided in main refinancing operations. Initially intended as a temporary measure, the new tender procedure has since been extended repeatedly, the earliest phase-out date currently being July 2015.

The reason why the fixed rate full allotment tender was “probably the most significant non-standard measure” of the ECB, as one Executive Board member put it (González-Páramo 2011), was that it implied a switch from a supply-driven to a demand-driven market for central bank money. According to a senior economist from

the ECB's DG Market Operations, the Eurosystem has since been "in auto pilot mode, in the sense that the liquidity which is injected into the banking system is very much demand-driven" (CB Interview 10). In other words, the Eurosystem no longer holds discretionary control over the amount of central bank money in the banking system. The new tender procedure allows each counterparty to obtain as much central bank liquidity as it deems desirable at the main refinancing rate, the amount of eligible collateral at its disposal being the only limiting factor. The extent of counterparty demand for reserves was revealed most clearly by the outcome of the two full allotment LTROs of December 2011 and February 2012, via which the Eurosystem offered banks liquidity at the main refinancing rate for the unprecedented maturity of three years. The combined volume of the two operations of over one trillion euro multiplied the amount of excess reserves in the banking system, as displayed in Figure 7 (more on which in the following section).

Figure 7: Consolidated balance sheet of the Eurosystem, January 2007 - July 2014, EUR trillions



Source: ECB Statistical Data Warehouse **Explanation:** The chart plots assets in the upper and liabilities in the lower half. Several smaller items have been combined (see * and ** below for details). The chart shows key changes to the operational framework: The switch to full-allotment tenders in October 2008; the launch of the purchase programmes for covered bonds in June 2009 and for sovereign bonds in May 2010 (dark blue); the 3-year LTROs of Dec. 2011 and Feb. 2012; the lowering of the deposit rate to 0% in July 2012 that caused counterparties to leave any excess reserves in their current accounts.

*Reverse operations, credits from margin calls, marginal lending facility, claims on non-euro area residents denominated in euro.

** Other liabilities, counterpart of special drawing rights allocated by the IMF, liabilities to euro-area residents in euro & in foreign currency, liabilities to non-euro area residents in euro & in foreign currency, debt certificates issued, other liabilities to euro-area credit institutions in euro, deposits related to margin calls, fine-tuning reverse operations.

3.3.3 Centralising central banking? Central bank agency and monetary governability under structural liquidity surplus conditions

The common underlying motivation for the changes to the financial apparatus described above – the loosening of collateral eligibility criteria, the switch to full-allotment tender operations, and the two 3-year LTROs – was to satisfy banks’ demand for liquidity at a time when the interbank market was frozen. As a consequence, the balance sheet of the Eurosystem almost tripled in size between the beginning of 2007 and mid-2012, to a total of just above €3 trillion. This development is shown in Figure 7, which plots the various categories of assets and liabilities of the Eurosystem, clearly showing the impact of the two LTROs, which – like all refinancing operations – appear on the asset side of the Eurosystem’s balance sheet. Although the balance sheet has been contracting since the partial normalisation of financial conditions in the aftermath of the announcement of OMT in July 2012, the fixed rate full allotment procedure and significantly softened eligibility criteria for collateral are still in place, while excess reserves have only recently been reduced. As policy-makers and researchers on both sides of the Atlantic reflect publicly on the desirability of recent changes becoming permanent features of monetary policy (Cœuré 2013; Gagnon/Sack 2014), this final section explores the ramifications of these changes for monetary governability.

The first thing to note is that the very rationale underpinning banks’ demand for central bank money has changed. Prior to the financial crisis, the demand for – and hence the provision of – reserves closely matched the liquidity deficit of the banking sector (Eisenschmidt/Holthausen 2011: 16). Reserve holdings were a costly burden that banks were incentivised to keep at the minimum possible level (Beaupain/Durré

2013: 260). In the wake of the failure of Lehman Brothers, however, credit institutions stopped lending to each other in the interbank market, when the open market operations of the Eurosystem became the only source from which banks could satisfy their liquidity needs (Giannone et al. 2012; Gorton/Metrick 2012). At the same time, these needs were greatly increased by heightened uncertainty in the market. The result was a situation in which the potential costs of illiquidity far outweighed the cost of holding large amounts of excess reserves, remunerated at the (punitively low) deposit facility rate. Credit institutions therefore used the LTROs and MROs of the Eurosystem to build liquidity buffers that went well beyond the structural liquidity deficit of the banking sector.⁸⁸

The upshot is that three pivotal elements of the financial apparatus that had underpinned monetary governability prior to the crisis have since been much weakened. First, the Eurosystem's weekly forecast of the liquidity needs of the banking system has become obsolete. The ECB used to go to considerable lengths to gather daily data from the NCBs about liquidity conditions in national interbank markets, in order to produce and publish a forecast of the aggregate liquidity needs of the banking system. Under the pre-2008 variable rate fixed allotment procedure, the Eurosystem used to decide the allotment amount on the basis of these forecasts. The weight it attached to the precise allotment amount became apparent in a joint interview with an ECB and a Bundesbank economist. Talking about the ECB's deliberations regarding the precise allotment amount – “we had a lot of discussion of whether it would be 102.5 or...” – the interviewee was interrupted by their Bundesbank colleague's chuckle. Feeling the

⁸⁸ As shown by Eisenschmidt and Holthausen (2011: 16), liquidity provision exceeded the aggregate liquidity deficit by as much as 30% during the months following the failure of Lehman Brothers.

need to explain the attention that used to be given to small variations in the allotment amount, the ECB staff member continued: “Yes of course, because at that time you had a very stable relationship between the liquidity provided to the banking system and the behaviour of short term money markets” (CB Interview 10 & 11). Although the ECB continues to publish forecasted liquidity needs, these forecasts are of little significance in the current situation of demand-driven liquidity provision.

Secondly, the minimum reserve requirement, which initially guaranteed the governability of the nascent euro area money market, is largely irrelevant under current conditions. With the banking sector holding large amounts of excess reserves, the minimum reserve requirement was no longer a binding restriction – the euro area banking sector had moved from a structural liquidity deficit to a structural liquidity surplus (CB Interview 8). The Eurosystem acknowledged this new reality by lowering the ratio of the minimum reserve requirement from 2% to 1%. Although it may not be immediately obvious, this measure was primarily designed to “foster money market activity” (ECB 2012d: 30). The collapse of interbank lending being the chief cause of the breakdown of the transmission mechanism of monetary policy, the goal of the reduction of the minimum reserve ratio was “to free up available collateral and have it used for other than reserve requirement purposes” (CB Interview 8).

Finally, the Eurosystem has lost its ability to keep its operational target, EONIA, aligned with its main refinancing rate.⁸⁹ Instead, EONIA dropped to the ‘floor’ of the interest rate corridor of the Eurosystem, that is, it has largely followed the deposit

⁸⁹. As described above, the closeness with which the market rate tracked the official interest rate had hitherto provided the yardstick to measure the success of the Eurosystem in implementing its monetary policy.

rate, as shown in Figure 6 above. The reason for this divergence is the fragmentation of the banking sector into two groups, mostly along core-periphery lines. Simply put, the core banks enjoy continuing access to the interbank market, where rates for overnight funding are extremely low due to the large amount of surplus liquidity in the system. Some periphery banks, on the other hand, having been cut off from the interbank market, can satisfy their liquidity needs only via the Eurosystem's open market operations, and thus at the higher main refinancing rate.⁹⁰

In technical terms, the obsolescence of these three pre-crisis pillars of governability has brought about a transition in monetary policy implementation from a corridor system to a so-called floor system, in which the market rate for overnight liquidity tracks the deposit rate rather than the main refinancing rate. In conceptual terms, the effect is a shift in the *distribution of agency* within the financial apparatus for monetary policy implementation from the money market to the Eurosystem. As described above, prior to the crisis it was interbank transactions that determined EONIA. After injecting a pre-determined amount of liquidity into the banking system, the Eurosystem would leave the rest to the banks – price discovery happened in the interbank market. However, the careful calibration of the allotment amount and the corridor around the main refinancing rate made sure that the outcome of this process would usually be a market rate close to the main refinancing rate. There was thus a paradoxical circularity to monetary policy implementation. Benoît Cœuré (2013: 3), a member of the Executive Board of the ECB, put this succinctly in a recent speech: “The key function of markets is price discovery. But here the price to be discovered is not only

⁹⁰ Note that what is problematic is not the fall of EONIA to the bottom of the interest rate corridor, but that only a subset of banks have access to funding at this lower market rate.

the starting point of parties' negotiations, but also the end-point of the market *tâtonnement*: it is the price pre-set by the central bank!" However, there was an alternative rationale for this framework of liquidity provision and the potentially redundant interbank activity it entailed – it “was thought to be best suited to reveal banks' ‘true’ liquidity demand, incentivise interbank transactions, and enhance market scrutiny of banks' credit standing” (Cœuré 2013: 3). In other words, maintaining a decentralised price discovery process served the purpose, above all, of generating the very data and information that provided the input for the financial apparatus of monetary policy implementation.

That was the situation before the adoption of the fixed rate full allotment procedure, which, as mentioned above, shifted monetary policy implementation into “auto pilot mode” by making liquidity provision largely demand-driven (CB Interview 10). However, while this suggests a movement of decentralisation, at a deeper level the developments described above represent a remarkable *centralisation of agency*. This is because it is no longer transactions in the money market that determine the market rate of interest – for the simple reasons that with abundant liquidity there is very little need for such transactions. Rather than the money market acting as intermediary for the central bank, “we have moved to a system in which the central bank is *de facto* the ‘market intermediary’ of last – and sometimes – first resort” (Cœuré 2013: 3). In other words, the centrality of the intermediation function of the interbank money market for monetary policy implementation was such that when it broke down the Eurosystem *absorbed* this function (Giannone et al. 2012: 468). It did so by making intermediation unnecessary, increasing its liquidity provision to the point where it satisfied, at any given moment, not only the liquidity demand of the banking system as a whole,

but of every individual bank. Thus, the term ‘centralisation’ refers to the “migration of the money market onto the balance sheets of central banks” (ECB 2012d: 115).⁹¹ Originally devised as an emergency management solution (Braun 2013), the positive experience with the new framework has already raised the question for ECB policy-makers of whether “some of the novel instruments [should] remain in their toolbox ready for use, or even as standing instruments replacing old practices” (Cœuré 2013: 3).⁹²

3.4 Conclusion

The central argument of this study is that monetary governability is not a natural characteristic of ‘the economy’, but a performative effect of central banking. The empirical analysis in this chapter of a set of practices related to the implementation of monetary policy in the euro area have shown these practices to be key for our understanding of how the economy is rendered amenable to macroeconomic management by means of monetary governance. They spring from the underlying governability challenge of the Eurosystem’s operational target, the EONIA rate, being determined by the pricing decisions of participants in the money market over which the central bank has no *direct* control. True to the idea of performative monetary governance, however, the Eurosystem has *indirect* control over those pricing decisions by performing both the supply of and the demand for central bank money. Exploiting its position as the *central* bank, the ECB uses administrative authority to impose a mini-

⁹¹ Giannone et al. (2012: 470) offer a more technical formulation of the same observation: “In essence, the ECB’s non-standard measures represent an attempt to use various tools available under its operational framework for the implementation of monetary policy to act as a central counterparty for interbank transactions. By so doing, the ECB replaces the frozen private interbank money market at the centre of wholesale bank funding activity and thereby sustains the necessary flow of credit to the real economy. An immediate implication of facilitating financial transactions in this way has been a substantial expansion of the ECB balance sheet.”

⁹² For a systematic discussion of the case for a ‘floor system’ with a permanent liquidity surplus for the Federal Reserve, see Gagnon and Sack (2014).

minimum reserve requirement on the banking system, thus performing the demand for and the trading in central bank money that constitute the interbank market. Acting as central *bank*, the ECB then used to (until 2008) exploit its power as monopoly supplier of central bank money to fix its market price through carefully calibrated fixed-allotment tender operations. The rules that govern the provision of central bank liquidity are based as much on the ECB's administrative authority as on its market position as the monopoly supplier of central bank money, which allow it to dictate collateral eligibility criteria and tender procedures. Crucially, however, the recent financial crisis shows that the ECB's power to dictate these rules is conditional on the presence of financial stability. In its absence, those elements that pertain to the market side of the financial apparatus – most notably, activity in the interbank market and availability of collateral – may force the ECB's hand, as they have done since 2008.

Thus, agency within the financial apparatus is distributed, or decentralised, rather than confined to the headquarters of the ECB or the NCBs. While the Eurosystem can be said to 'govern through money' in the sense that central bank money is the 'currency' of the interaction between the various elements of the apparatus, it is important to emphasise the extent to which the money market is not only an object, but also an agent of monetary governance in its own right. The money market determines EONIA, which in turn marks the starting points of the yield curve and thus of the transmission mechanism of monetary policy. The clearest manifestation of this agent-status of the money market came when it ceased to play that role during the recent financial crisis, which prompted the ECB to take the interbank market onto its own balance sheet.

This analysis points towards two important insights regarding the political economy of monetary governance that will be further explored in chapter six and in the conclusion. The first is the extent to which state agency in relation to the economy – in other words, macroeconomic governability – has indeed come to depend on “self-regulating market mechanisms” in financial markets (ECB 2008d: 71). The analysis in chapter six of the ECB’s recent advocacy of a revival of securitisation and the market for asset-backed securities in the euro area shows that as a result of this dependence the ECB is increasingly acting as a champion of the process of financialisation. This relates back to the point made in the introduction about monetary governance being political not only by virtue of its outcomes, but also by virtue of its transmission mechanism, that is, by the way in which it affects the economy. Modern macroeconomic management can and should be contested not only on the grounds of *what* it does, but also on the grounds of *how and through whom* it does it.

The second point is somewhat at odds with the first, in the sense that it seems incompatible with the ECB’s emphasis on “a well-functioning, self-equilibrating money market” (Gaspar et al. 2001: 327) and its “hands-off” approach” to monetary governance (ECB 2008d: 71). Indeed, the analysis in this chapter has shown that the collapse of the money market in the wake of the failure of Lehman Brothers, and again in the context of the sovereign debt crisis, has caused the ECB to intervene on an unprecedented scale, effectively becoming, by means of a threefold expansion of its balance sheet, “the ‘market intermediary’ of last – and sometimes – first resort” (Cœuré 2013: 3). This suggests a tendency towards ‘centralisation’ in the financial apparatus that the analysis of forward guidance in chapter six will show to be mirrored in the communicative apparatus of expectation management. On that basis, the con-

clusion will propose two interpretations of this tendency as a return to a 'hydraulic' mode of macroeconomic governance and/or a strengthening of the central (bank) planning aspect of monetary governance.

4. Governing insiders: The communicative apparatus of expectation management

This chapter shares with the previous chapter a focus on the interaction between the central bank and monetary *insiders*. However, whereas chapter three concentrated on the financial apparatus that governs through money, the present chapter is concerned with the communicative apparatus that governs monetary insiders through *expectations*. This concern, in turn, is different from the focus in chapter five on the ideological apparatus that governs monetary outsiders through *trust* in money. Although the focus on the communicative management of insiders' expectations seems to put the present chapter on a well-trodden path, it goes beyond the existing literature in two important respects (Abolafia 2010; Hall 2008; Krippner 2007, 2011; Holmes 2014). First, with the partial exception of Holmes, this literature focuses mostly on the U.S. case. There are currently no other studies outside of economics of the communicative management of macroeconomic expectation formation in the euro area.⁹³ Second, relegating the subjects of policy implementation and of communication with outsiders to separate chapters allows me to explore the communicative interaction of the initiated – between central bank and central bank watchers – in greater depth.

The chapter proceeds as follows. Sections 4.1 and 4.2 elaborate on the theoretical framework that underpins the analysis in this chapter – the notion of a communicative apparatus that performs monetary governability by disentangling and framing the process of private sector expectation formation, and the paradoxical nature of 'transparency' under conditions of uncertainty. Here, the relative youth of the ECB becomes

⁹³ The availability of detailed minutes goes some way towards explaining the significantly greater popularity of the Fed among students of central bank communication.

an analytical liability, in the sense that the historicity of the communicative apparatus cannot be traced in the ECB's own history. As already briefly mentioned in chapter two, I deal with this problem by using examples from other influential central banks on the grounds that central bankers form a tightly knit epistemic community in which experiences made by one central bank routinely feed into other central banks' subsequent procedures and decisions. Sections 4.3 and 4.4 thus contain two 'monetarist prologues' that help illuminate the genealogy of the communicative apparatus of the ECB – the strict monetary targeting regime adopted by the Fed between 1979 and 1982, and the pragmatic monetary targeting of the German Bundesbank. Section 4.5 gives a detailed account of the monetary policy strategy of the Eurosystem and of the debates that preceded its finalisation in the fall of 1998. These debates subsequently continued, and section 4.6 covers the significant modifications of the strategy during the early years of monetary union. Section 4.7 observes the communicative apparatus in action, drawing on my interviews with central bankers and private sector economists. Section 4.8 concludes by summarising how the communicative apparatus of the Eurosystem disentangles and frames the expectation formation process.

4.1 Expectation formation as the performative effect of a communicative apparatus

The reason why expectations of the future are of such paramount importance to central bankers lies in the transmission mechanism of monetary policy. The previous chapter was concerned with central bank-money market interactions at the short end of the yield curve, and thus with the starting point of the transmission mechanism of monetary policy. The present chapter, in contrast, focuses on the link between short-term money market rates and those rates at the long end of the yield curve that actual-

ly determine aggregate demand in the economy – yields on long-term bonds and bank lending rates. These depend on two types of expectations private lenders hold about the future. On the one hand, long-term interest rates “reflect expectations of the future evolution of short-term interest rates” (ECB 2004c: 44). On the other hand, they “depend to a large extent on market expectations for long-term growth and inflation trends in the economy” (ECB 2004c: 45).⁹⁴ Thus, the central bank’s control over long-term interest rates depends on its ability to manage expectations of the future path of the official short-term rate as well as of future growth and inflation rates. This “expectationalist” (Morris/Shin 2008: 88) consensus has been firmly established among monetary theorists and policy-makers at least since the early 2000s, when its leading theorist explained that “successful monetary policy is not so much a matter of effective control of overnight interest rates as it is of shaping market *expectations* of the way in which interest rates, inflation, and income are likely to evolve over the coming year and later” (Woodford 2003: 15). In other words, a central bank’s decision to take *action* and change the current level of its policy rate, may be less important than the guidance it gives about its view of the future path either of the policy rate or of the macroeconomic developments that will determine future rate decisions. As Gürkaynak et al. (2005) have put it in a widely cited article, the actions of (in that case) the FOMC do not speak louder than its words.⁹⁵

⁹⁴ A lender who expects a higher inflation rate will set a higher nominal interest rate in order for the (expected) real interest rate to remain constant.

⁹⁵ Concretely, Gürkaynak et al. (2005: 56) conceptualise market reactions to decisions and their announcement by the central bank as reaction to two distinct signals, a “‘current federal funds rate target’ factor” and a “‘future path of policy’ factor”. Their empirical analysis of FOMC policy announcements finds the latter to be more effective.

In short, the ECB began its work at a time when the question was no longer whether or not expectations mattered, but how they could be manipulated, and therefore how they were formed. Regarding the latter question in particular, the insights offered by the economic literature are limited. To be sure, (most) economists working within the rational expectations framework do not imagine actual people to be algorithms, but use the assumption of ‘model-consistent expectations’ as a modelling device in order to avoid the “wilderness of ‘disequilibrium economics’” (Sims 1980: 4). Nevertheless, however, the irreducibly *social* character of the process of expectation formation still places it beyond the reach of the formalistic economic method.⁹⁶ It is natural, therefore, to turn to economic sociology for further guidance.⁹⁷ Here, the view has recently gained traction that the future-oriented nature of economic discourses and practices should be put at the centre of the study of contemporary capitalism (Langenohl 2010; Alexander 2011; Beckert 2013a, b; Esposito 2013; Wansleben 2013). This literature revolves around what could be called the ‘futura puzzle’.⁹⁸ Most economic activity is forward-looking in nature, yet the future remains fundamentally uncertain – how, then, does economic action become possible? How do economic actors close the gap between the present and the unknowable future? This question has been at the heart of the social studies of finance (SSF) research pro-

⁹⁶ In fact, it is when rational expectation theorists attempt to add a touch of ‘realism’ to their representative agents that it becomes clear just how far from a sociological understanding of expectations they are. Thus, in his 2008 Presidential Address to the American Economic Association, Thomas Sargent, one of the fathers of the New Classical revolution in macroeconomics, justified “the cautious modifications of rational expectations theories” contained in his model by emphasising that even though his agents had only adaptive expectations they were still allowed “to use economic theory, statistics, and dynamic programming” (Sargent 2008: 26).

⁹⁷ While it was still true only a few years ago that non-economists had “not displayed any systematic interest toward the category of expectation” (Langenohl 2010: 18), this has since changed quite dramatically.

⁹⁸ For a discussion of the role of ‘futura’ in modern finance that takes its cue from John R. Commons, see Palan (2013).

gramme, which, inspired by Callon's work on the performativity of economics, has focused on option pricing models (MacKenzie 2006), distributed market framing (Hardie/MacKenzie 2007b), the role of indices for knowledge production (MacKenzie 2012), or forecasting practices in currency markets (Wansleben 2013). As should be clear from the discussion of Callon's work in chapter two, the treatment of expectations in these studies stands in stark contrast to the economic approach. For instead of measuring observed economic decisions against the theoretical benchmark of 'rational expectations', SSF scholars study the construction of agencements – or apparatuses, in my terminology – that make expectations – and thereby decisions – possible in the first place. According to this view, expectations are *performative effects* of carefully crafted agencements that enable financial market participants to 'tame' the uncertainty of the future.

However, even though one might get this impression from the SSF literature, the private sector is *not* the monopoly producer of expectations – the state, too, plays an important part in the apparatus that underpins expectation formation in the economy. More specifically, it is central banks who "seek to endow the future with discernible features" (Holmes 2014: 9). For in order to be successful, a policy regime that operates through expectation management requires economic actors to both form and act upon their expectations in a predictable manner. Modern monetary policy therefore involves what Callon calls the "formatting" or "performance of calculative agencies" (Callon 1998b: 23, 30) – agencies that react to changes in the economic environment in a way that is consistent with the central bank's model of the economy. It is in this sense that economic actors' "intersubjectively shared expectations" (Hall 2008: 188) can be considered 'rational'. Thus, the crucial insight of the performativity literature

is that the very capacity to systematically form macroeconomic expectations – which constitutes an necessary condition for monetary governability – is a performative effect of a carefully crafted communicative apparatus. If one were to turn to the economic literature to determine the key element of this apparatus, one would be left with little doubt that this element was ‘transparency’. The definition of transparency that underpins this literature is, however, highly problematic. The following section elaborates the theoretical framework for the analysis of the communicative apparatus of the euro area via a critique of the economic discourse on central bank transparency.

4.2 The transparency paradox

In economics, ‘central bank transparency’ is commonly defined as “the absence of asymmetric information between monetary policy makers and other economic agents” (Geraats 2002: 533). Similarly, the ECB defines transparency as “an environment in which the central bank provides in an open, clear and timely manner all relevant information on its mandate, strategy, assessments and policy decisions as well as its procedures to the general public and the markets” (ECB 2002b: 59). Avoiding a detailed discussion of transparency at this stage of the argument⁹⁹, the key point is that the standard definition of transparency is incompatible with the *uncertainty* of the information that is being communicated “between monetary policy makers and other economic agents”. This is because under conditions of uncertainty avoiding ‘asymmetric information’ – and thereby achieving transparency as conventionally defined – is not a straightforward task at all (Dow 2013: 183).¹⁰⁰

⁹⁹. The shift from secrecy to transparency in central banking will be discussed (and problematised) at the beginning of the next chapter.

¹⁰⁰. Abolafia and Hatmaker (2013: 541) come to a similar conclusion in the analysis of the organisational dynamics of central bank communication: “Absolute transparency is impossible due to the com-

In fact, almost anything a central bank can say or do contains potentially contradictory signals.¹⁰¹ The obvious reason for this is that a large part of this information concern a *future* that is uncertain in the Keynesian sense of the term (Nelson/Katzenstein 2014). As a senior ECB economist explained it in an interview, this uncertainty imposes certain limits on transparency (CB Interview 5): “It’s a matter of fact that a central bank cannot be too transparent – simply because you don’t know what will happen tomorrow. So you have to keep some discretion to be able to intervene in a timely manner without affecting your credibility.” However, uncertainty also extends to the interpretation of the *present* economic situation and even of *past* data, both of which are often subject to substantive revisions.¹⁰² Although the literature lacks a systematic engagement with the implications for ‘transparency’ at the conceptual level, monetary economists and central bankers have long been aware of the uncertainty surrounding macroeconomic data (Brainard 1967; Friedman 1968; Orphanides 2001; Greenspan 2004).

In methodological terms, the upshot is that the standard approach of treating transparency as a benchmark – ‘the absence of asymmetric information’ – against which to measure actual central bank practice, is flawed. Uncertainty imposes limits on transparency (cf. Best 2005: 31), which means that ‘full transparency’ is not an exogenous-

plexity and ambiguity of information in organizations.” The present argument highlights the complexity of the *economy* rather than of the central bank as an organisation.

¹⁰¹. This is true even for seemingly unambiguous acts. Lowering the policy rate, for instance, is usually intended to boost investment spending and thus to accelerate growth. It can be perfectly rational, however, to interpret the decision as an indication that the central bank has a sceptical view of future growth prospects, and to therefore hold back on the investments that the decision is intended to stimulate (Hubert 2013: 1).

¹⁰². See, for instance, Jean Claude Trichet’s discussion in 2005 of the discrepancy between real time and (ex post) revised estimates for the output gap of the euro area (Trichet 2005, quoted in Holmes 2014: 41). For a discussion by the ECB of “Monetary policy-making under uncertainty”, see the article in the Monthly Bulletin of January 2001 (ECB 2001a).

ly existing form of behaviour that the central bank can simply choose to adopt. The solution to this methodological impasse lies in Callon's twin concepts of disentanglement and framing (Callon 1998a: 249). For it is through the process of disentangling a small number of variables from the mass of "effectively unlimited information" (Hardie/MacKenzie 2007b: 392) that the central bank is able to delimitate a manageable communicative space, or frame.¹⁰³ Economics plays a key part in this process of disentanglement and framing: "Consistency can be accomplished only in relation to a consensus on the meaning of the monetary situation as described by economic theory and econometric models" (Ingham 2004: 146). Only within such a limited frame can the central bank be 'transparent' and 'credible'. Departing from the common understanding of these two key elements of modern monetary policy, I argue that *strategic silences* constitute a key element of the communicative apparatus of expectation formation.

As will be shown in section 4.5 below, the monetary policy strategy of the Eurosystem framed its communication in terms of two variables – the inflation rate (the target variable) and the short-term interbank interest rate (the operational target variable). Since this arrangement has been in place for a long time in many parts of the world, it is easy to mistake it for the natural way of conducting monetary policy. In reality, however, it is only one of several possible ways of framing expectation formation, as the two brief 'monetarist prologues' will show that precede the analysis of the communicative apparatus of the euro area.

¹⁰³. Defending the limited transparency of the ECB, Otmar Issing (1999: 508) used precisely this argument: "What matters most in order to make sense of reality (which is inherently non-transparent to policy-makers and the public alike) and of policy-makers' behaviour is a coherent frame of reasoning to interpret the subset of relevant information."

4.3 Monetarist prologue I: Disentanglement and framing under the Fed's Reserve Position Doctrine (1979-1982)

The period from 1979 to 1982 was the only time during which the Fed fully implemented the 'reserve position doctrine' (RPD), according to which the quantity of reserves banks hold at the central bank should be the operational target of monetary policy (Bindseil 2004: 9). Since under this regime the central bank leaves the determination of interest rates to market forces, the Fed's adoption of the RPD was arguably motivated by a desire to mask its responsibility for the economic pain inflicted by the Volcker disinflation in the form of extremely high interest rates, recession, and unemployment (Krippner 2011: 114-120).¹⁰⁴ This does not explain, however, why central bankers and market participants deemed strict monetary targeting a valid policy regime, given the overwhelming evidence against the RPD, which goes all the way back to Thornton, Bagehot, and Wicksell (Bindseil 2004: 13-14).¹⁰⁵ In the case of the RPD the two (above-mentioned) criteria for a suitable operational target for monetary policy – central bank control and a stable relationship with the ultimate target of monetary policy (Issing 1997: 69; Bindseil 2011: 8) – would require a stable transmission mechanism between reserves and the money supply as well as between the money supply and nominal demand. Yet neither the velocity of money circulation nor the relationship between reserves and broader monetary aggregates – let alone nominal demand or income – could be said to be stable (Goodhart 1989: 311-322; De Long 2000: 89). Therefore, the RPD episode is significant because it illustrates that rather than material characteristics of the economy, conditions of governability are, to a con-

¹⁰⁴. The political economy of secrecy in central banking is further discussed in chapter five.

¹⁰⁵. Moreover, as pointed out by Kaldor (1986: xiv), the British Radcliffe Committee had argued already in 1959 that central banks should be concerned with the regulation of interest rates rather than of the money supply.

siderable extent, performative effects of economic theories – in this case of monetarism, or, more precisely, of what De Long (2000: 91) has called “political monetarism”:

Political Monetarism argued not that velocity could be made stable if monetary shocks were avoided, but that velocity was stable. Thus, the money stock became a sufficient statistic for forecasting nominal demand, and central bankers could close their eyes to all economic statistics save monetary aggregates alone. Political Monetarism argued not that institutional reforms were needed to give the central bank the power to control the money supply tightly, but that the central bank already did control shifts in the money supply.

(De Long 2000: 91)

Yet crucially, monetarism did not simply change policy – it also changed the economy itself. In Blyth’s account of this episode – based, in turn, on Greider (1987) – monetarism became “true” because “financial markets sought ... a new convention to govern their expectations” (Blyth 2002: 169). Thus, whereas most students of the Volcker disinflation have located the causes of the turn to monetary targeting within the Fed, emphasising its desire to conceal its responsibility for the economic fallout that ensued, Blyth sees a self-reinforcing dynamic that leaves the Fed with little choice:

What was important, then, was that the markets believed monetarism was true, since by coordinating expectations through this new convention, monetarism became self-fulfilling. If the markets believed in monetarism, then the markets would demand less of an inflation premium the more closely money supply targets and actual money supply growth correlated. By insisting on this linkage, the Fed found itself a prisoner to money supply targeting.

(Blyth 2002: 171)

This episode thus illustrates the power of Callon’s analytical perspective. By disentangling inflation from all other economic variables and by framing it exclusively in terms of commercial bank’s reserve position, the RDP created a communicative apparatus within which it was intersubjectively rational to form expectations as if the money supply was the sole determinant of future inflation.

4.4 Monetarist prologue II: Disentanglement and framing under the Bundesbank

While it is true that the ECB was designed after the model of the Bundesbank, the Eurosystem also departed from established Bundesbank practice in significant ways. In any case, since Germany had a strong influence on both the continuities and the innovations of the new monetary architecture, a basic understanding of the German monetary policy tradition is key.

Under the Bretton Woods system of fixed exchange rates the Bundesbank's mandate to "safeguard the value of the currency" (Article 3 Bundesbank Law) amounted, in practice, to an exchange rate target. The disorderly shift in 1973 to a global monetary system of floating exchange rates left the Bundesbank bereft of the exchange rate as a nominal anchor for the 'value of the currency'. After the alternatives – direct administrative controls on credit creation and a 'liquid reserve ratio' target (central bank money held by commercial banks less required reserves) – had been dismissed, a new consensus in favour of monetary targeting quickly emerged (von Hagen 1999: 686-687). The crucial question was then which monetary aggregate would make for the best intermediate target. In economic terms, this choice is determined by two conditions – the reactivity of the aggregate to interest rate changes, important for central bank control over the aggregate, and a stable relationship with the overall price level as the ultimate target of monetary policy (Issing 1992: 293, 1997: 68). Between 1975 and 1987, these requirements led the Bundesbank to target the 'central bank money stock', which was defined as currency in circulation plus the reserves commercial banks were required to hold – "a kind of weighted and scaled M3" (Issing 1997: 69). In 1988, the Bundesbank switched to targeting M3, thus reducing the weight of currency in circulation, which had been increasing rapidly due to rising demand for

Deutsche Mark abroad. The growth target for these monetary aggregates was “the sum of the predicted growth in potential output, the normative rate of inflation that is acceptable in the medium term, and the trend rate of change in the velocity of circulation of money” (Issing 1997: 70). As the latter two indicators remained fixed during most years at 2% and 1%, respectively, the monetary growth target was to a large extent determined by the Bundesbank’s estimates of potential output growth.

At least in its theoretical rationalisation, the Bundesbank’s preference for targeting money growth rather than interest rates was based on the monetarist argument that all that monetary policy could hope to achieve was to avoid policy mistakes and that prices, including the price for money, should be determined by market forces (Brunner 1968; Friedman 1968).¹⁰⁶ According to this logic, when fixed by a central authority, “interest rates would cease to have their important allocational function in a market economy by virtue of being relative indicators of scarcity” (Issing 1992: 293).¹⁰⁷ Moreover, a central bank targeting interest rates rather than monetary aggregates, by having to accommodate commercial banks’ demand for reserves at the predetermined interest rate risks losing control over the quantity of money in circulation, which would preclude the possibility of countercyclical stabilisation policies (Issing 1992: 294).

However, Issing’s arguments notwithstanding, the Bundesbank variant of ‘pragmatic’ monetary targeting – which had always been admired for its inflation record rather than for its theoretical underpinnings – was regarded with increasing scepticism

¹⁰⁶ For an account of the Bundesbank shift towards monetary targeting that highlights the importance of political considerations, see von Hagen (1999).

¹⁰⁷ This rationale was also cited by a former chief economist of a large German bank in an interview (Interview 26).

by monetary theorists and policy-makers outside of Germany. Thus, a widely-cited article argued that the Bundesbank did not, in fact, do what it said it was doing – that is, target monetary aggregates – but really acted as an inflation targeter in disguise (Bernanke/Mihov 1997). Building on this observation, advocates of inflation targeting insisted that the Bundesbank approach was intransparent because the monetary aggregate it attached so much weight to was actually economically unimportant: “[P]ragmatic monetary targeting implies that policy decisions are explained in terms of money-growth developments that are not essential for policy” (Svensson 2000: 80).

Again – as in the U.S. case – what looks like inefficient intransparency can be re-interpreted, from a Callonian perspective, as the successful disentanglement and framing of expectation formation. Tellingly, the best formulation of this point is by Issing himself, in a passage that merits being quoted in full:

[T]he constancy of the Bundesbank’s monetary strategy and its actual success have made a substantial contribution to stabilizing market participants’ expectations and hence the statistical relationships between macroeconomic variables. I should like, therefore, to challenge Goodhart’s Law with the following hypothesis: a policy of monetary targeting geared to steadiness and medium-term objectives reinforces the stability of the monetary relationship and hence the foundation of the policy itself.

(Issing 1997: 78)

In other words, Issing suggests that what critics saw as the Bundesbank’s lack of transparency was actually – as in the U.S. case – the secret of its success in disentangling and framing expectation formation. According to Issing, the Bundesbank installed a communicative apparatus that performed the very stability of the money demand function on which it depended, thereby creating the conditions for monetary insiders to form intersubjectively rational expectations.

4.5 The monetary policy strategy of the Eurosystem

The preparatory works for Stage Three of EMU fell under the purview of the European Monetary Institute (EMI), which was set up by the Maastricht Treaty and was operative from 1994 until the Eurosystem took over on 1 June 1998. Its statute, laid down in Protocol 19 of the Treaty, defined its objective as contributing “to the realisation of the conditions necessary for the transition to the third stage of Economic and Monetary Union” (Article 2 EMI Statute). More specifically, the EMI was called upon to “specify the regulatory, organizational and logistical framework necessary for the ESCB to perform its tasks in the third stage” (Article 4.2). Led by a council that consisted of a President and the Governors of the national central banks, it was to perform these tasks without taking “any instructions from Community institutions or bodies or governments of Member States” (Articles 8 & 9.1-9.2).

When the EMI began its work in 1994 it was already clear that the mandate of the ECB would be to maintain price stability. This ultimate target of monetary policy, which was written into the Maastricht Treaty (Article 105), provided the basis around which the monetary policy strategy of the Eurosystem was built. Yet the Treaty left it to the ECB to define ‘price stability’. Here, the Committee of Governors had initially opposed the idea of a quantitative inflation target. Karl Otto Pöhl, the president of the Bundesbank at the time, argued that a quantitative inflation target “would give the impression that a certain rate of inflation was being aimed at, whereas the objective was in fact to reduce it” (James 2012: 282). However, the EMI’s 1997 report on the “Specification of the operational framework” contained an unambiguous recommendation

for a quantified definition, which was justified as a framing device that would “enhance the transparency and credibility of the ESCB’s strategy” (EMI 1997: 10).

This still left open, however, the crucial question of how the Eurosystem was to achieve its goal of price stability – in other words, the question of its *strategy*. It is crucial to remember in this context that price stability is a macroeconomic variable over which the central bank does not have direct control. Therefore, in monetary policy the question of strategy – how to achieve the end (price stability) through the available means (the instruments of monetary policy) – is really a question about the *intermediate target* that central banks should aim for in pursuit of the ultimate but impalpable goal of price stability.¹⁰⁸

The formulation of the monetary policy strategy is a key moment in the narrative of this chapter because it harks back to the transparency paradox, in the sense that the need for a strategy is a direct consequence of policy-makers’ uncertainty regarding the workings of the economy and of the monetary transmission mechanism. As pointed out in the first consolidated academic statement of the Eurosystem’s monetary policy strategy, in “a hypothetical world in which the ‘true’ economic model of the world is known” to both policy-makers and market actors, there would be no need for intermediate targets to ‘bridge’ the gap between instruments and the ultimate goal of price stability: “The announcement of, and credible commitment to, the monetary policy’s final goal would be sufficient to characterise the entire central bank strategy” (Issing

¹⁰⁸ Part of the difficulty of retrospectively untangling the debates about the monetary policy strategy of the Eurosystem is due to a conceptual muddle. Traditionally, monetary theorists and policy-makers thought and spoke of monetary policy as being directed towards an *intermediate target*, which helped the central bank bridge the gap between the instruments at its disposal and its ultimate goal. For the Bundesbank, as in most other cases, the intermediate target was a monetary aggregate. Yet although the Eurosystem ended up adopting a ‘reference value’ for monetary growth, it never spoke of this value as a ‘target’.

et al. 2001: 99). The simplest communicative apparatus would suffice because both the central bank and the public would know exactly how instruments would have to be adjusted in order to achieve the desired outcome. In reality, however, uncertainties abound. Indeed, the *additional* uncertainty of the uncharted waters of monetary union was a key driver for the Eurosystem's choice of strategy.

Initially, the EMI had considered five strategic options: exchange rate targeting, interest rate pegging, nominal income targeting, monetary targeting, and direct inflation targeting. On the basis of a set of general principles the first three options were quickly ruled out, which left monetary targeting and direct inflation targeting on the table.¹⁰⁹ As described above, the former had been the Bundesbank approach since 1975. However, following the failure of monetarist experiments with monetary targeting in the US and the UK (McCallum 1985; Bindseil 2004), seven OECD countries had successfully switched to inflation targeting between 1990 and 1997.¹¹⁰ As a consequence, the German preference for monetary targeting was no longer widely shared in international central banking circles.

The final decision whether to adopt a monetary targeting or an inflation targeting strategy was left to the Governing Council of the ECB, which took over from the EMI on 1 June 1998. Although Alexandre Lamfalussy (1997) played down the difference between the two approaches, the financial press, at the time of the ECB Governing Council's deliberations, reported of a "power battle behind two conflicting schools of thought" (Financial Times 1998).¹¹¹ While the true extent of controversy in the Gov-

¹⁰⁹ These principles were: effectiveness, accountability, transparency, medium-term orientation, continuity, and consistency with central bank independence (EMI 1997: 7-8).

¹¹⁰ In chronological order, these were New Zealand, Canada, United Kingdom, Sweden, Finland, Australia, and Spain (Freedman/Laxton 2009: 11).

¹¹¹ This interpretation of events seems to be supported by the fact that the monetary policy strategy

erning Council remains uncertain, Otmar Issing, the former member of the Directorate of the Bundesbank who had become the ECB's first chief economist, had – according to himself – been given a “free hand” by the president regarding the strategy question (CB Interview Issing). Issing, who was a critic of inflation targeting, warned against the dangers of adopting a forecast-based strategy at a time when the available data was patchy and when the validity of existing models stood in question.¹¹² It was only days before the Governing Council decided on the ECB's monetary policy strategy that Issing spoke publicly of “the difficulties involved in creating a comprehensive and accurate database of euro area-wide statistics”, and, making explicit reference to the Lucas critique, warned that “the regime shift associated with the adoption of the single monetary policy may change the way expectations are formed in the euro area, and thereby alter forward-looking economic behaviour” (Issing 1998: 4).¹¹³ As a consequence, he argued, the Eurosystem would not be in a position to base an inflation (forecast) targeting strategy on reliable macroeconomic forecasts: “Forecast uncertainty is likely to be relatively large, possibly rendering the whole inflation targeting strategy ineffective” (Issing 1998: 5). On the other hand, a similar argument regarding the behaviour of the money demand function in future common currency area was commonly cited against the Bundesbank approach. As noted by the EMI (1997: 9), “[u]ncertainty concerning the empirical properties of money demand in the euro area

was published only in October, not in September as initially announced after the first meeting of the Governing Council in July. Moreover, it would be difficult to explain why the reference value for monetary growth was announced only with an additional two-months delay, in December 1998 (ECB 1998a).

¹¹² As explained in the introduction, the key feature of inflation targeting is that there is no intermediate target, so that the inflation rate is targeted directly by the central bank. Due to the time lag with which changes in the short-term interest rate affect price developments, central banks in practice target (their own) inflation *forecasts* – hence Svensson's notion of “inflation forecast targeting” (Svensson 1997).

¹¹³ Issing subsequently reiterated these arguments whenever he explained (which he did often) how and why the Eurosystem had chosen its ‘two-pillar’ monetary policy strategy (e.g., Issing 2001, 2008).

in Stage Three is the main argument against a monetary targeting strategy”. In fact, when I asked him in July 2013 to comment on the strategy debate, Issing stated that when he had started discussing the issue with a group of hand-picked ECB economists he had already opposed a monetary target for fear of the unpredictable consequences for the money demand function of the regime change that was the introduction of the common currency (CB Interview Issing). He did, however, insist that money had to play an important role in the strategy of the ECB.

In the end, the Council opted for a strategy whose numerous intentional ambiguities reflected the uncertainties of the transition – and would soon become the subject of strong criticism. The original press statement of the ECB described the strategy as resting on three pillars, the first of which consisted of the price stability goal, now defined as “a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%”, which was to be maintained “over the medium term” (ECB 1998b). In subsequent ECB parlance, price stability lost its ‘pillar status’, and the strategy was described as a ‘two-pillar’ approach, whereby the use of the instruments of monetary policy would be guided by *both* a monetary analysis and an economic analysis. The latter was the uncontroversial ‘second pillar’ – the broader analysis of “a wide range of economic and financial variables as indicators for future price developments”, such as wages, exchange rates, measures of real economic activity, and fiscal policy indicators (ECB 1998b). With a two months delay, the monetary aggregate that would guide the analysis under the controversial ‘first pillar’ was defined as M3. A broad monetary aggregate, M3 includes currency in circulation, repos, short term deposits, debt securities (with a maximum maturity of two years), and

shares of money market funds (ECB 1998a).¹¹⁴ The ECB emphasised that its “reference value” for the annual growth rate of M3 would not constitute a target for policy-makers (ECB 1998b), but a “benchmark for assessing risks to price stability” (ECB 2000e: 41), deviations from which would be treated as one factor among others in the considerations of the Governing Council.¹¹⁵ However, whatever the precise label, the calculation of the reference value for monetary growth was based on “exactly the same procedure as the one followed by the Bundesbank in the past” (De Grauwe 2000: 186). Namely, it was calculated as the sum of the envisaged inflation rate of ‘below 2%’, a GDP growth trend of 2% to 2.5%, and a velocity of circulation declining at a trend rate of 0.5% to 1% per annum. Applying slightly conservative arithmetics to these numbers, the Council arrived at a reference value for the annual growth rate of M3 of 4.5% (ECB 1998a).

4.6 Elaborating the communicative apparatus: The early years of EMU

As noted in the previous chapter, at the level of the financial apparatus of the Eurosystem – indicated by developments in the money market – the transition to the new monetary regime turned out to be surprisingly smooth. At the level of communication, on the other hand, the ECB often felt misunderstood during the initial phase. For instance, Otmar Issing remembered that “the German Council of Economic Advisers [Sachverständigenrat] wrote that we had a combination of an inflation [target] and a

¹¹⁴ The full list from the press release includes the following components for M3: “overnight deposits; deposits with an agreed maturity of up to two years; deposits redeemable at notice up to three months; repos; debt securities with maturity of up to two years; unit/shares of money market funds and money market paper (net)” (ECB 1998a).

¹¹⁵ One of my interview partners, who at the time had been a senior economist at the Central Bank of Ireland, emphasised that this *not* a compromise solution, but simply the decision to adopt both competing approaches at the same time (CB Interview 4): “If you look at what at the ECB they call their two pillar policy [sic] – that wasn’t a compromise. That was a situation where there was no compromise.”

money target, which was complete nonsense.” Indeed, most leading monetary economists chimed into the criticism of the ECB’s monetary policy strategy and communication framework.¹¹⁶ Talking about the first *ECB Watchers Conference* – an event that has since been held on an annual basis – Issing remarked that “[it] was essentially the ... critics against me” (CB Interview Issing).

The critics aimed at three aspects of the new communicative apparatus of the Eurosystem, all of which came down to the question of transparency. The first was the analysis of broader economic developments that constituted the second pillar of the strategy. Here, the critics singled out the secrecy that surrounded the internal staff forecasts of macroeconomic developments, which initially the ECB did not publish (Svensson 1999: 80). The second criticism was directed against the vague definition and asymmetrical definition of price stability – HICP inflation of “below 2%” – and against the specification of the time horizon – “the medium term” – over which the goal was to be achieved (Galí 2002: 42-46). Finally, and most importantly, the very existence of the first pillar – the monetary analysis – both on theoretical and on empirical grounds (Svensson 1999; Galí 2002). In a study of the leading arguments in favour of a special role for money, Michael Woodford concluded that “none of them provides a convincing argument for adopting a money growth target, or even for assigning money the ‘prominent role’ that the ECB does, at least in its official rhetoric” (Woodford 2008: 1594). As we shall see, all subsequent modifications to the communicative apparatus of the euro area were related to one or more of these criticisms.

¹¹⁶ See, for instance, the first four instalments of *Monitoring the European Central Bank*, a series of annual reports published by the London-based Centre for Economic Policy Research. The first report was by Begg et al. (1998).

4.6.1 Ambiguity in the monetary policy strategy: The definition of price stability and the role of the monetary pillar

In December 2002, the Governing Council announced a comprehensive evaluation of the monetary policy strategy of the Eurosystem, which resulted in several adjustments that responded to the above-mentioned criticisms. While the evaluation confirmed both the quantitative definition of price stability and the two-pillar framework, “the Governing Council also chose to clarify to the public some aspects” related to these two central elements of its strategy (ECB 2003b: 79).

Firstly, the ECB added three words to its price stability goal, announcing that it would henceforth aim for a year-on-year increase of the HICP of “below, *but close to*, 2%”. This slight modification reduced the asymmetry of the previous definition, which would have ruled out a 4% annual price increase but would have allowed for zero inflation. In light of the earlier German opposition to any numerical definition on the grounds that it would cast doubt on the Eurosystem’s commitment to price stability (James 2012: 282), the ECB apparently felt the need to justify this further specification of a *positive* inflation target – the Monthly Bulletin that announced the update of the strategy expanded on the well-known economic “arguments for tolerating small positive inflation rates” in considerable detail (ECB 2003b: 83-86).¹¹⁷

The second part of the evaluation concerned the role of the controversial monetary analysis – the first pillar – in the strategy of the Eurosystem. As argued above, the two-pillar strategy was best understood as an element of “constructive ambiguity” in a strategy that reflected policy-makers’ preference for flexibility in the face of signifi-

¹¹⁷. According to the Bulletin, these arguments were “the risks of deflation and the zero lower bound for nominal interest rates; the possibility of an upward measurement bias in measured inflation; and the presence of downward nominal rigidities in prices and labour compensation” (ECB 2003b: 83).

cant uncertainty regarding the workings of the euro area economy and the transmission mechanism of monetary policy (Issing et al. 2001: 108; Best 2005). This intentional ambiguity hypothesis is supported not only by Issing's above-quoted statements prior to the finalisation of the strategy, but also by the vagueness of subsequent ECB parlance. For instance, regarding the relative importance of the two pillars, the initial press statement spoke of a "prominent role" for money (ECB 1998b). Asked for clarification in the press conference during which the announcement was made, President Duisenberg replied ominously that "one pillar is thicker than the other is, or stronger than the other, but how much I couldn't tell you" (Duisenberg 1998).

The precise relative measurements of the pillars notwithstanding, monetary economists soon questioned both the theoretical and the empirical justification of the monetary analysis (Svensson 1999; Galí 2002). According to Svensson (1999: 80) the money-growth indicator to which the ECB was so eager to ascribe a 'prominent role' was "essentially irrelevant".¹¹⁸ Here again, the ECB met its critics halfway. It retained the first pillar, yet relegated it – somewhat confusingly – to a secondary position behind the 'second pillar': "[M]onetary analysis mainly serves as a means of cross-checking, from a medium to long-term perspective, the short to medium-term indications coming from economic analysis" (ECB 2003b: 87). In the President's introductory statement to the monthly press conference, the economic analysis would henceforth always precede the monetary analysis. The Governing Council also announced that in

¹¹⁸. In order to make sense of this academic hostility towards the first pillar it is important to recall – as the ECB researchers conducting the background studies for the evaluation did (Masuch et al. 2002: 219) – that within the new neoclassical synthesis money did not play a meaningful macroeconomic role.

order to underscore the long-term nature of the monetary analysis, the reference value for money growth would no longer be reviewed on an annual basis (ECB 2003b: 87).

As a result of these changes, no one would subsequently mistake the reference value for an intermediate target, as the German Council of Experts had done. Yet the make-over of the ECB's strategy did more than reduce the monetary analysis to a less 'prominent role'. The reduced emphasis on the first pillar and the reference value for money growth, the specification of the numerical definition of price stability, and the increase in forecast transparency – the combined effect of these changes brought the ECB considerably closer to inflation targeting. As the next section will show, this tendency was reinforced by the ECB's gradual move towards greater openness regarding its macroeconomic projections.

4.6.2 The question of forecast transparency

The first modification of the communicative apparatus occurred in December 2000, when the Eurosystem began to publish, each June and December, the results of the bi-annual "staff macroeconomic projection exercise", which offered conditional forecasts of euro area GDP growth, inflation rates, and the major expenditure items both for the current and the following year (ECB 2000b). Such projections not only provide a key input for the rate decisions of the central bank, but also serve as a communicative tool explaining this decision to monetary insiders (Goodhart 2009: 86). The ECB's initial non-publication of these projections therefore fell short of what at the time had become best practice among central banks. It had been criticised by Svensson, who expected the projections "[to] be the decisive input in policy decisions" that should therefore be available to the public (Svensson 1999: 80). Svensson later

seemed to be vindicated when Otmar Issing declared that the decision to publish the projections reflected “the Governing Council’s firm conviction that the information and analysis underlying its monetary policy decisions should be shared with the public to the greatest extent possible” (Issing 2004: 725).

But the ECB’s decision in 2000 to publish the projections did not satisfy the critics. This was because, firstly, a bi-annual projection was too infrequent “to be useful input in the monetary policy decision-making process”, which is why Galí (2002: 60) expected that “[a]most surely, the Governing Council must have access to more frequent internal projections”. This point was addressed in 2004, when the ECB switched from a bi-annual to a quarterly publication schedule for its macroeconomic projections – a schedule that is also followed, among others, by the Fed.¹¹⁹ Secondly, the uncertainty surrounding the projections was represented through ‘ranges’ for each variable.¹²⁰ The ECB fell short of the practices of other central banks by not assigning probabilities (and thus confidence intervals) to its ranges, which significantly reduced their informational content (Galí 2002: 60). This criticism was partly addressed in 2008, when the ECB began to publish ranges that implied a 75% confidence interval (ECB 2008a).

However, the most important question concerned the nature of the assumptions underpinning central bank projections – in particular the assumption about the future path of the central bank’s own policy rate. There are three main alternatives (Rude-

¹¹⁹. The new March and September editions were ECB staff projection exercises, as opposed to the June and December editions, which were Eurosystem projection exercises that included the staff of the NCBs (ECB 2004a).

¹²⁰. The ranges are calculated on the basis of the errors of previous projection exercises: “The width of the ranges is twice the average absolute value of the differences between actual outcomes and previous macroeconomic projections” (ECB 2000b: 49).

busch/Williams 2008; Goodhart 2009; Galí 2011). First, under constant interest rate assumption, the current level remains unchanged over the forecast horizon. This had been the approach of the ECB and of the Swedish Riksbank until 2006. The second approach is to assume a future interest rate path that is “consistent with current market expectations” – that is, to use the forward rates that are implicit in the yield curve (Galí 2011: 537). When switching to this approach in 2006, the ECB joined the Bank of Japan and the Bank of England.¹²¹ Both the first and the second alternative yield *conditional* forecasts (hence the term ‘projections’). Third, unconditional forecasts are based on the assumption that the policy rate “will follow whatever path the central bank expects it to follow” (Galí 2011: 537-538). This approach is currently followed by the central banks of the U.S.A, Sweden, and Norway.

The reason why the advocates of central bank transparency were critical of the ECB’s constant interest rate assumption is that the resulting conditional forecasts were based on an interest rate that did not correspond to the likely path of the interest rate as anticipated by the central bank at the time of the projection exercise (Leitemo 2003; Svensson 2003; Woodford 2005). As a consequence, such forecasts will “not actually [be] believed, even in the central bank itself” (Woodford 2005: 44). The ECB was fairly explicit about this feature of its projections. Thus, Issing emphasised that the ECB’s projections were “not meant to be, and should certainly not be misperceived to represent, predictions of the most likely macroeconomic outcome”, but as “a counterfactual scenario” for policy-makers to take into account (Issing 2004: 725-726). From the perspective of policy-makers, the main argument in favour of the

¹²¹ Since 1998, the Bank of England has regularly published two forecasts – one with a constant interest rate assumption, the other with market expectations.

constant interest rate assumption is to avoid committing themselves to a particular policy (Woodford 2005: 44). On this issue the ECB met its critics halfway when, in 2006, it switched to publishing projections that were based on market expectations of the future path of the interest rate. While this introduces an element of realism regarding the interest rate assumption, it still leaves it to the ECB's insider audience to divine its stance in the light of a forecast of variables other than the policy rate (Rudebusch/Williams 2008: 248). Writing about the Bank of England, Goodhart (2009: 94-95) described the resulting forecasting exercise as "incestuous": "The market is trying to guess what the authorities will do, and their guess is then incorporated as the conditioning assumption to the initial forecast on which, in part, the MPC bases its decision."

As will be shown in the following section, monetary insiders are clearly aware of this 'incestuousness' in relation to the other, survey-based forecast regularly published by the ECB, the quarterly Survey of Professional Forecasters. Distributed to economists working in the financial sector, at research institutes, and at employers' associations or trade unions, the questionnaire asks participants to give their forecasts of HICP inflation, real GDP growth, and unemployment for three different time horizons – the current year, one and two years ahead, and five years ahead (Garcia 2003: 9). Initially, the ECB published only brief summaries of the results of these surveys in the Monthly Bulletin – a practice that was also criticised (Galí 2002: 60). Yet here, too, the pattern of increasing disclosure was repeated as the ECB began, in October 2003, to publish the complete aggregate results of the survey on its website (Garcia 2003: 8).

4.7 The communicative apparatus of the euro area in action

Monetary policy-makers are well aware that transparency alone does not guarantee that firms and households react to central bank actions in the desired manner. In order to establish congruity between the intentions of the sender of a message and the interpretation and reaction of the recipient, central banks actively guide the way in which private actors react to policy measures. This has been variably described as the “pedagogical role” (Fracasso et al. 2003: 4), the “epistemic function” (Hall 2008: 193), or the “sensegiving” activities of central banks (Abolafia 2010: 349). An illustrative example, recounted in Abolafia (2010: 358), is that of a FOMC meeting in 1992, during which one member opposes further monetary easing and instead talks about the need to “rationalize the attitudes on the part of consumers” who have not yet grasped the extent to which monetary policy had already been eased. For Abolafia, this statement illustrates that monetary policy oscillates between sensemaking and sensegiving – even as the model is challenged by real-world developments, “[p]olicy makers believe that they only need to ‘rationalize attitudes’ so that the model can work” (2010: 363). This example shows how a monetary signal may fail to convey the message that was intended by the sender – in this case, that households and firms should react to lower interest rates by increasing consumption and investment. The success of central bank communication depends not only on the clarity of the message, but also on the capacity and willingness of the recipient to interpret the message in accordance with the intentions of the sender. Thus, while the central bank’s decisions are based on the analysis of what economic actors are up to – sensemaking – it also and the same time engages in sensegiving by telling these same actors what they *should* be up to. Yet the notion of performativity teaches us that sensemaking often mutates into sense-

giving. The reason why this is particularly relevant in the economic realm is that economic action is based on expectations of an uncertain future. Due to the nodal position it occupies in the economy, the sensemaking of the central bank is particularly prone to fade into sensegiving – i.e., to be performative. The communicative apparatus of the central bank functions as a channelling device for the co-ordination of private sector expectations of the future.

4.7.1 Silence around the monetary pillar

In light of the above discussion, the first thing to note is the absence of references of my interview partners to the first pillar of the ECB's strategy. When asked about the data and forecast data they were following most closely, they invariably named real economy variables and indicators. This practical irrelevance of the monetary pillar was also highlighted in an interview I conducted with a former senior economist at the Central Bank of Ireland who had been involved with the preparatory works for the monetary policy of the ECB. Associating the first pillar with the Bundesbank and the second pillar with the "Anglo-Saxon model" my interview partner said:

[I]n practice ... for the first three years the ECB actually did follow the Anglo-Saxon model. They gave lip-service to money, but they didn't actually use money as a crucial target. Now, there's a lot of articles and speeches that you can read, about how the role of money is important, by Issing, and the extent to which money was taken into account... He was thinking that money was very important, and he still is.

(CB Interview 4)

This suggests that Paul De Grauwe (2003) was right when, in 2003, he interpreted the downgrading of the monetary analysis as the ECB concluding "that it is better to stop pretending that the money stock is very important while everybody can see that in ac-

tual fact the money stock plays almost no role in the policies of the ECB.”¹²² It is telling in this respect that, whereas the ECB publishes its projections for the real economy (see above), its monetary projections circulate only internally (Interview 25). This non-publication by the ECB of its monetary projections should not, however, be interpreted as an element of intransparency. Instead, given the intentional ambiguity that the first pillar introduces into the strategy, the publication of monetary projections would actually *increase* intransparency. This is because monetary insiders would learn more about the future path of money growth, but to the extent that it contra-indicates the interest rate recommendation from the real economy projections, this additional information would reduce their ability to predict central bank behaviour.

4.7.2 Pavlov's dog and the inflation Taliban

As described above, there is reason to be sceptical regarding the seemingly single-minded focus of many central banks on inflation. According to Benjamin Friedman (2002: 16), such determination is best seen as a communicative strategy designed to condition expectation formation among monetary insiders. This view finds support in my data from interviews with central bankers and ECB watchers. One senior ECB economist described Jean-Claude Trichet's approach to communication as follows:

He insisted so much on our sort of mantra ... the close to two but below two percent. He repeated this concept again and again ... He was accused by those who were not so much focused on inflation that he was like a Taliban, an inflation Taliban. But the main purpose of his insistence was really to educate, or to make really very clear which was the point of the ECB, the whole point of the monetary policy of the ECB. And I think this was understood.

(CB Interview 7)

¹²² De Grauwe's view is also in line with recent empirical research according to which “ECB interest rate decisions are barely influenced by its monetary sector-based policy intentions” (Berger et al. 2011: 29).

This suggests that the ECB pretends to be conditioned to react to inflation only in order to condition its audience to disregard other variables when forming expectations about the future path of the key interest rates. On the market side, ECB watchers are acutely aware of this. As one chief economist of an Irish bank told me: “We sometimes say that the ECB is a bit like Pavlov’s dog – inflation goes up, interest rates have to go up, no matter what the cause.” A former Chief Economist of a German bank chose similar imagery when he offered the following (ironical) description (in that case I had brought up Friedman’s view of inflation targeting):

When you have the inflation rate as a target, you can go about all this in a nicely mechanical way. Modern macro[economics] is all about mechanical engineering. ... You have fixed relationships everywhere, inflation and output gap, short-term interest rates ... So you’re training the dog to react mechanically. It understands exactly how you set interest rates, so you’re a pure mechanic.

(Interview 26)

Arguably, the preference of both the ECB and its insider audience for such quasi-mechanical predictability is rooted in a sense of mutual dependence and vulnerability. On the one hand, interest rate decisions affect all areas of business in the financial sector. If a bank is wrong-footed by a decision, it is likely to suffer significant losses on its trading book. On the other hand, for reasons explained in chapter three, the operation of the transmission mechanism of monetary policy depends on the ‘cooperative’ behaviour of financial markets. A German pension fund manager put this succinctly (Interview 19): “Central banks want to manipulate [the interest rate]. This manipulation works only if the actors – that is, we and institutions like us – let themselves be manipulated.” It is this mutual dependence that underpins what this in-

interview partner called the “unwritten agreement between central banks and capital markets that central banks tell markets in advance what they are going to do”.¹²³

Indeed, the middle of the first decade of monetary union was marked by a remarkable unanimity between the ECB and its insider audience. According to a Frankfurt-based money market trader, Jean-Claude Trichet’s statements and speeches were scrutinised by ECB watchers for “signal words” that were regarded as giving clear indications of the direction of interest rate decisions (Interview 11).¹²⁴ This view from the market side corresponds with the experience of a senior ECB economist, according to whom from 2003 onwards “the situation became almost boring”: “There was nothing really to discuss and to do... The impression from here was that [the banks] understood more or less fully the way it worked” (CB Interview 7). In fact, the ECB held its main refinancing rate constant at 2% for the unprecedented period of 30 months between June 2003 and December 2005.¹²⁵

When asked about interest rate decisions that had caught them by surprise, my interview partners invariably recalled two episodes that fell in to the post-2007 period. The first such episode was July 2008, “when it was perfectly visible and transparent that the economy was in a massive downturn, yet when the ECB raised the interest rate to I think 4.25%, even though everybody – *everybody* – in the market knew that that was a wrong decision” (Interview 19). The second episode was an oil-price fu-

¹²³ It should be emphasised that this is very different from how the Bundesbank used to handle its communication. A former Bank Chief Economist recalled that at one point during the 1990s the Bundesbank actually postponed an interest rate change because it was too widely expected by market participants (Interview 26).

¹²⁴ A similar view was expressed about Mario Draghi by the pension fund manager: “The utterances of Mr. Draghi – you could have them translated by a computer. ... There is a code, which is understood very precisely [by market actors]” (Interview 19).

¹²⁵ The question of the potentially destabilising effects of what, with the benefit of hindsight, seems to have been an ‘illusion of governability’ will be discussed in chapter six.

elled surge in the inflation rate to 3% in mid-2011, to which the ECB responded by raising the main refinancing rate from 1% to 1.5% in two successive steps. The chief economist of an Irish bank recalled to have been “very surprised” by these rate hikes because core inflation was actually stable and because the euro area had only just begun to recover from the 2009-10 recession (Interview Mangan). Recalling the same episode, another bank economist said that the ECB “had done something that came as a complete surprise to me, in the sense that their [the ECB’s] fear of inflation was much stronger than mine” (Interview 10). What is less surprising is that these episodes fall into the post-2007 period, when the ‘inflation-only mantra’ of the Eurosystem was gradually weakened by expectations that the central bank would increasingly have to give precedence to financial stability and/or economic growth concerns. The two premature rate hikes in 2008 and 2011 – both of which were soon reversed – can be read as (ill-fated) attempts by the ECB to preserve the pre-crisis framing of monetary policy.

4.7.3 The curious case of ultra-stable inflation expectations

The ECB conducts and publishes a ‘Survey of Professional Forecasters’ (SPF) once every quarter. In order to learn about long-term inflation expectations held by private sector forecasters, the survey asks respondents to give point estimates for euro area inflation rates for several future dates, including an estimate for the rate five years ahead.¹²⁶ Considering this long time horizon, one might expect the survey data to show considerable variation. However, this has never been the case. At any point between

¹²⁶ The ECB receives an average of 59 responses from forecasters regarding their expectations for inflation, real GDP growth, and unemployment (ECB 2007: 10). Roughly half of the forecasters work in the financial sector, 30 percent in research institutes, and 10 percent represent employers’ associations or trade unions (Garcia 2003: 12).

2003 and 2006 the expectations of at least 50% of SPF forecasters fell between 1.9% and 2%, and thus precisely into the ECB's target range of 'below but close to 2%'.

Asked about their view on this puzzling stability of long-term inflation expectations, two ECB watchers at different banks gave very similar responses:

Forecasts that reach that far into the future are subject to very large uncertainty. As a consequence, there is a tendency to move towards the target rate, or, simply speaking, 'I don't know, I'll just put down a number slightly beneath 2%'.

(Interview 25)

It is of course slightly tautological – 'as long as we trust you, we are going to write down a number close to 2%'.

(Interview 24)

These statements suggest that the primary function of the SPF is not to provide information about private sector inflation expectations to the ECB, but *to the survey respondents themselves*.¹²⁷ That is, the survey is less an analytical tool than part of the communicative apparatus of monetary policy that assures monetary insiders that they do not need to worry about long-term inflation because nobody worries about it. Thus, the SPF helps anchor the very expectations it is supposed to measure – its primary function is not analytic, but performative.

It is the very stability of long-term inflation expectations as measured by the SPF that has a performative effect on the way in which monetary insiders form their macroeconomic expectations. For not only do the forecasters surveyed for the SPF "fail to systematically update their forecasts", as one recent study has found (An-

¹²⁷ This interpretation is supported also by the fact that market participants' expectations about future inflation can also easily be deduced from inflation-linked financial products. Specifically, the ECB computes so-called break-even inflation rates "as the difference between yields on nominal bonds and yields on comparable inflation-linked bonds at the same maturity" (ECB 2012b: 71). For this purpose, it relies on inflation-linked sovereign bonds issued by Germany and France, as well as on inflation swaps (ECB 2012b: 71).

drade/Le Bihan 2013). Moreover, they tend to shift their attention from future *inflation rates* to future *interest rates*. One ECB watcher explained this as follows:

When today inflation rates fluctuate, sometimes even by a full percentage point – for instance because of oil price shocks – people do not get very excited about that anymore ... because they believe relatively firmly in the inflation targets. One then rather adapts expectations in other areas. No one says ‘Because of these inflation shocks I need to raise my inflation expectations for the next ten years’ ... Instead one draws the conclusion ‘Monetary policy is going to be more restrictive.’

(Interview 10)

The manager of a German pension fund expressed a similar view:

Twenty years ago the central bank would raise interest rates when inflation accelerated, and would lower them when inflation came down. So the game was about how the economy and inflation would go, that was the economic analysis. Today the question is: What does the central bank want?

(Interview 19)

These quotes point towards an important feature of the communicative apparatus – namely that to monetary insiders forecasts of monetary or macroeconomic variables are valuable not so much in their own right, but indirectly, as predictors of future interest rate decisions of the central bank. The following section pursues this thought further, focusing on the role of the macroeconomic concept of the ‘output gap’.

4.7.4 Does the ECB really know the value of the output gap? Does it matter if it doesn't?

The output gap is defined as the difference between actual and potential GDP. It is one of two key variables in the standard formulation of the Taylor rule, which describes the (putative) reaction function of the central bank as a quadratic loss function that contains the deviation of the inflation rate from the central bank's target rate, as well as the deviation of current output from its ‘natural’ level. The publication of the rule over two decades ago by John Taylor (1993) proved one of the most consequential

moments in the history of monetary economics, as Taylor rules became the most important heuristic device in the toolkit of central bank watchers across the world (Koenig et al. 2012). The primary reason for this popularity was the robustness of the rule as a predictor of the central bank's rate setting behaviour. When asked how he had experienced the transition in 1999 from the Bundesbank to the ECB, a veteran ECB watcher at a German bank responded by pointing to the continuing applicability of the Taylor rule:

For my actual work of forecasting [central bank policy] the differences were not particularly large in my view. I had a kind of Taylor rule for the Bundesbank, and I subsequently – when I had some data – put one together for the ECB, and it has done the job ever since. ... The nice thing is – it has worked over the past 11 years. Of course it wasn't working for Lehman, during a short period.

(Interview 25)

Interestingly, the considerable theoretical and empirical uncertainties surrounding the output gap (Orphanides 2001; Orphanides/Williams 2009) have not prevented it from assuming a key role in the communicative apparatus of the euro area. One ECB watcher explained this as follows:

We're also looking at output gaps. After all, in normal times the Taylor rule worked fairly well as a proxy [to forecast ECB rate setting]. Of course, in retrospective we know that these output gaps were anything but exact science. But ok, so what – if the ECB lets itself be guided by them, then that's how it is.

(Interview 24)

Both this statement and the example of the Survey of Professional Forecasters support the argument by Morris and Shin that as a result of the shift towards transparency central bank information acquires a dual role “of conveying fundamentals information *as well as serving as a focal point for beliefs*” (Morris/Shin 2002: 1522, my emphasis). The conclusion to this chapter will return to the potentially far-reaching implications of this observation for our understanding of the role of knowledge in monetary policy.

4.8 Conclusion: Performance, credibility, and knowledge in monetary governance

This chapter has investigated the communicative apparatus that governs the expectation formation process of monetary insiders in the euro area. The chapter began by showing that the monetary consensus of the early 2000s tended to view this apparatus as more important for monetary governability than the financial apparatus examined in the previous chapter. The crucial question of how the recent crisis management experience of the ECB has affected this balance will need to be postponed until after the discussion of this experience in chapter six, and will be taken up again in the final conclusion. Here, I shall highlight three general – and, in two cases, revisionist – implications of the performative analysis in this chapter for the way in which we think about the roles of ‘credibility’ and ‘knowledge’ in monetary governance.

4.8.1 The performative dimension of credibility: ‘Inflation nutters’ and pretence of single-mindedness:

The upshot of the two ‘monetarist prologues’ was that in spite of their apparent intransparency, both the Fed’s radical Reserve Position Doctrine and the Bundesbank’s pragmatic brand of monetary targeting functioned as effective communicative apparatuses that successfully conditioned expectation formation. On that basis, the analysis in this chapter has shown that the way in which the communicative apparatus of the Eurosystem disentangles and frames expectation formation differs less from these monetarist apparatuses than the literature on the “quiet revolution” in central banking would suggest (Blinder 2004).

To see why, it must be emphasised, first, that all three monetary policy strategies have the inflation rate as their ultimate target, and, second, that in the short run infla-

tion is governed by factors over which the central bank has no direct control (Friedman/Kuttner 2011: 1354). The second point raises the question why central banks choose inflation as their target at all. According to the Tinbergen-Theil principle, which constitutes an important element in the theoretical foundation of inflation targeting, “it is possible to express the policy chosen at any time in terms of the intended outcome ... of *any* single magnitude that monetary policy affects: inflation, output, employment, the economy’s foreign balance, even some magnitude of no intrinsic importance whatsoever” (Friedman 2002: 3-4, original emphasis). Far from suggesting that inflation has no intrinsic importance, however, Friedman argues that the principal benefit of an exclusive focus on the inflation rate is that it *conditions* the way in which market actors form expectations:

Inflation targeting is a way of manipulating private-sector decision makers’ expectations about future inflation. It puts before them the central bank’s long-run objective of achieving inflation equal to such-and-such a rate. It removes from explicit discussion whatever objectives the central bank may hold for output, employment, or other real outcomes, over less than the long run. It likewise removes from discussion the trade-off that monetary policymakers perceive between inflation and real outcomes over less than the long run.

(Friedman 2002: 16)

Thus, even though this form of communication is neither very straightforward nor particularly transparent, conditioning market actors by ‘pretending’ that only inflation matters is a crucial precondition for what is generally described as the *credibility* of the central bank. Only “by keeping out of the discussion those considerations that would reveal that commitment to be qualified” is the central bank able to commit credibly to keeping inflation low (Friedman 2002: 16). The reason why such a communication strategy is not straightforward is that, as noted by Mervyn King (1997), central bankers are not, in reality, the “inflation nutters” they pretend to be. Instead, they also (or even mostly) care about real outcomes such as output and employment.

Yet by pretending that they do not, central bankers frame their communicative interaction with monetary insiders in a way that allows them to appear more consistent and predictable than would be possible if they gave equal consideration to the multitude of disparate or even contradictory economic trends that can be observed at any given time. The welfare-enhancing effects that accrue, according to Rogoff's (1985: 1170) influential analysis, from "appointing as head of the central bank an agent whose dislike for inflation relative to unemployment is known to be stronger than average", are the result of this central banker's ability to perform credibly as an 'inflation nutter'. In short, the first counterintuitive generalisation suggested by my analysis is that central bank *credibility* under the inflation targeting regime of the Great Moderation was based on central bankers *pretending* to be something they were not.

Crucially, the past tense in the previous sentence is due to the fact that the radical expansion of central bank responsibilities in the wake of the recent financial and economic crisis has abruptly upended this 'pretence of single-mindedness'. More than any other central bank leader, Mario Draghi epitomises this rupture. Confronted with the expansion of the portfolio of the ECB's official and *de facto* responsibilities, which now include financial and macroeconomic objectives, Draghi did not even try to re-enact the 'inflation nutter' performance of his predecessors.¹²⁸ This key development will be further explored in chapter six through an analysis of the ECB's forward guidance.

¹²⁸ The German pension fund manager I interviewed put this succinctly (Interview 19): "With Draghi, political and economic targets have clearly prevailed over the price stability target."

4.8.2 *The epistemic dimension of credibility: Dependability vs. epistemic authority*

Beyond the question of whether pre-crisis central bankers *really* were the single-minded inflation nutters they pretended to be, this chapter also suggests a second modification to the understanding of central bank credibility.

The rational expectations hypothesis implies that the public cannot be fooled by the central bank (or, in fact, by any other policy-making body). A series of highly influential papers established the view that time-consistency was crucial for the credibility of central bank policies (Kydland/Prescott 1977; Barro/Gordon 1983a). These theoretical arguments, together with the practical successes of the notoriously hawkish Bundesbank and of the disinflation campaign of the Volcker Fed, helped to make credibility the holy grail of central banking.¹²⁹ According to Blinder (2000: 1423), the monetary policy literature offers three ways of understanding credibility. A central bank can acquire credibility on the basis of a historical record of high inflation aversion, because it is “bound by a rule or other ‘commitment technology’”, or because senior central bankers are employed on an “incentive-compatible contract”. Blinder’s own definition is closer to the meaning of ‘credibility’ in everyday usage (2000: 1423): “A central bank is credible if people believe it will do what it says.”

However, the preceding analysis suggests that all three definitions are misleading. As in the case of transparency, the main reason is uncertainty. The economic literature addresses only one of two dimensions of credibility – namely, the ‘moral’ dimension of credibility, that is, the central bank’s *dependability*. Under this if-then logic, which

¹²⁹ As pointed out by Blinder (2000: 1421), the concept of ‘credibility’ had been virtually inexistent in the literature on monetary policy and central banking prior to 1985, but became highly popular after that.

is often equated with a firm commitment to low inflation, the central bank is credible to the extent that it keeps its promises to implement policies x_1 or x_2 if the scenarios y_1 or y_2 occur. Indeed, if dependability was the only game in town, the safe strategy for the central bank would be not to give any guidance regarding the likelihood of future economic scenarios at all, limiting itself to purely conditional statements. However, due to the pivotal importance of private sector expectations for the transmission mechanism of monetary policy, central banks have increased their efforts to guide private sector expectations about the future – a development that has reached its preliminary endpoint in forward guidance. It is therefore important to make a distinction between dependability and the separate dimension of *epistemic authority*¹³⁰, defined as the degree to which market actors are ready to build their own expectations on the central bank’s models and forecasts.¹³¹ A central bank whose commitment to low inflation is widely acknowledged, but whose analytical framework or forecasting methods are viewed as flawed is unlikely to be successful in guiding private sector expectations about the future.

As a consequence, epistemic authority is no less important to central bank performance than dependability. Indeed, the desire to achieve and maintain epistemic authority constitutes the driving force behind the global “scientization of central banking” (Marcussen 2009; cf. Rosenhek 2013). This trend is reflected in the evolution of central banks into research hubs of unprecedented size and scope (White 2005), and

¹³⁰ ‘Epistemic credibility’ would have contrasted better with the credibility terminology in economics. But given that ‘epistemic authority’ is a well-established term in IPE (Sinclair 2000), it seems reasonable to stick to this terminology. The concept is also largely identical, in intent and purpose, with Biersteker and Hall’s notion of “authority of expertise” or “authority of authorship” (Hall/Biersteker 2002: 5, 220). For a recent discussion of epistemic authority in relation to central banking, see Rosenhek (2013).

¹³¹ Note that this definition does not require market actors to believe that the central bank’s models and forecasts are *true*, but only that they are at least as likely to be correct as their own predictions.

the growing popularity of assigning central bank governorships to accomplished academic (macro-)economists (e.g., Stanley Fischer, Mervyn King, Ben Bernanke, Raghuram Rajan, Janet Yellen). The fact that the concentration of intellectual resources at the central bank is unrivalled in the economy gives monetary insiders an extra incentive to ascribe special weight to the central bank's view of the future. Yet whether insiders do so because of the focal point role of central bank forecasts or because they actually believe in the *intellectual superiority* of central bank research is a different question – and one with potentially far-reaching implications for the conventional understanding of the role of knowledge in the conduct of monetary governance.

4.8.3 Pretence of knowledge: Pathology or constitutive element of expectation management?

Friedrich Hayek used to warn tirelessly against the dangers of an exaggerated belief in the governability of the economy on the basis of theoretical knowledge: “To act on the belief that we possess the knowledge and the power which enable us to shape the process of society entirely to our liking, knowledge which in fact we do not possess, is likely to make us do much harm” (Hayek 1989: 7). Since Hayek, economists have used the pretence-of-knowledge argument, in one form or another, almost constantly.¹³² As detailed in chapter one, however, this constant presence of warning voices in the discourse of economics did not prevent the Great Moderation to inspire a new bout of overconfidence regarding the ability of economists and policy-makers to control the business cycle (Woodford 2009).¹³³ From a post-crisis perspective, the degree

¹³² The argument has been used against Keynesians by Keynesians (Coddington 1976), against Keynesians by monetarists (Friedman 1968) and by the Lucas-critique (Lucas 1976), against New Classical economics by Larry Summers (1991), and against over-ambitious monetary policy agendas by central bankers such as Alan Greenspan (2004) or Mervyn King (2005).

¹³³ The Asian crisis and the burst of the dot-com bubble around the turn of the century notwithstanding.

of overconfidence during the early 2000s is difficult to fathom. It seems all too obvious today that the champions of governability had exaggerated their understanding of and control over the economy – a phenomenon that has been described, in allusion to the Great Moderation, as a “Great Complacency” (Engelen et al. 2011), or, in allusion to Hayek, as a “pretence-of-knowledge syndrome” (Caballero 2010).¹³⁴ The present analysis of the communicative apparatus of monetary policy, however, suggests an alternative interpretation.

As noted above, the discussions of the output gap and of the Survey of Professional Forecasters in this chapter suggest that the information provided by a ‘transparent’ central bank does not merely convey information about economic fundamentals but also serves “as a focal point for beliefs” (Morris/Shin 2002: 1522). This focal point role of central bank information arises from the intersubjective nature of economic expectations and is reinforced as market actors become aware that their peers attribute importance to what the central bank says (Morris/Shin 2002, 2005). Market actors are keenly aware of this dynamic. Explicitly mentioning Keynes’ example of the beauty contest, a former bank Chief Economist put it thus:

You have to believe that others believe that the central bank knows more than they do. Even if you believe that the central bank does not know more than the market, even that it knows significantly less than the market, then you still follow the central bank if you believe that the others believe that the central bank knows more than the market.

(Interview 26)

ing, most macroeconomists, policymakers, and even media shared a sense of optimism that strongly resembled the enthusiasm that pervaded academic and policy circles during the ‘Golden Age’ of capitalism, when the construction of Keynesian governability was completed. This was most strikingly illustrated by the veneration of Alan Greenspan, which in turn was epitomised by Bod Woodward’s evocatively titled hagiography “Maestro” (Woodward 2000). Today, Greenspan’s reputation is in tatters, and he is considered by many as a chief culprit of the subprime crisis in the United States (Watson 2014a). For further quotes, see chapter one, section 1.3.4.

¹³⁴ For discussions of the temptations and pitfalls of overconfidence, see Baker and Widmaier (2013) in relation to macroprudential ideas, and Beunza and Stark (2012) in relation to quantitative finance.

In other words, the coordination of expectations around central bank forecasts is conditional on the willingness of monetary insiders to act as if they believed that the central bank knows more than it does actually know or can possibly know. Thus, the second counterintuitive generalisation emerging from this chapter is that ‘pretence of knowledge’, which has been widely regarded as a pathological development in central banking, has actually been an integral part of the communicative apparatus of expectation management.¹³⁵

Crucially, however, ‘pretence of knowledge’ must always be a fragile arrangement, subject to constant re-negotiation between the central bank and its insider audience under dynamically changing economic conditions. Like ‘pretence of single-mindedness’, ‘pretence of knowledge’ has experienced a fundamental challenge in the context of forward guidance, which – as will be shown in chapter six – has tested the limits of the central bank’s power to disentangle and frame long-term private sector expectations.

Before we can get to that, however, chapter five turns its attention to the interaction between the ECB and monetary outsiders. The reason for dedicating an entire chapter to this often neglected dimension of central bank agency is that outsiders pose a governability challenge that is different from those posed by (super-)insiders, but no less important to the overall governability of the economy. Moreover, as will also be shown in chapter six, recent events have demonstrated that outsiders’ trust can by no means be taken for granted.

¹³⁵ This resonates with research in International Relations on ‘organised hypocrisy’ as a common organisational principle in international politics (Lipson 2007; Weaver 2008).

5. Governing outsiders: The ideological apparatus of monetary trust

It is well enough that the people of the nation do not understand our banking and monetary system for, if they did, I believe that there would be a revolution before tomorrow morning.

(Henry Ford Sr., quoted in Greider 1987: 55)

[T]here were many dire warnings about the evils of ‘printing money.’ For example, in May 2009 an editorial in *The Wall Street Journal* warned that both interest rates and inflation were set to surge ‘now that Congress and the Federal Reserve have flooded the world with dollars.’ ... Needless to say, it’s not the first time a politically appealing economic doctrine has been proved wrong by events. So those who got it wrong went back to the drawing board, right? Hahahahaha.

(Krugman 2014)

The central question of this thesis concerns the role of the ECB in creating the conditions under which monetary governance can be effective in the euro area. Chapter two introduced the analytical distinction of three groups within the economy, each posing a unique challenge to monetary governability, each thereby defining one dimension of central bank agency. These groups differ with regard to their position and function in the transmission mechanism of monetary policy as well as to their financial literacy. The two groups studied in chapters three and four both consist of financially literate monetary insiders, but differ in their respective positions in the transmission mechanism. In the case of super-insiders in the money market the hallmark of governability is that market participants behave in such a way as to bring about the short-term inter-bank rate targeted by the ECB. Here, the agency of the ECB is lodged in a financial apparatus that governs through (central bank) money. In the case of the broader category of monetary insiders, governability requires that economic actors make decisions in such a way as to bring about the level of aggregate economic activity that the ECB

deems consistent with its inflation target. Here, the agency of the ECB is lodged in a communicative apparatus that governs through expectations. That said, the distinguishing mark of the members of the third group – which comprises the majority of households in the economy – is their low level of financial literacy. The premise under which the analysis will, in the following, turn to this group of ‘monetary outsiders’ is that the challenge it poses for monetary governability is that of monetary trust. This is not to say that households, as consumers and investors, do not play an important role in the transmission mechanism of monetary policy. However, the key challenge for central bank governance of monetary outsiders is not to fine-tune economic decision-making, but to create the conditions for monetary trust. Even more than the money market, monetary trust among outsiders is an under-researched dimension of monetary governability, the study of which requires a genuinely interdisciplinary approach.¹³⁶

5.1 Studying monetary trust: An interdisciplinary project

As recently noted by a group of Dutch central bank economists in an ECB working paper, “the academic literature has mostly equated the outside world with financial market participants” (van der Crujssen et al. 2010: 5). This is problematic because this ‘outside world’ is populated by monetary outsiders who lack even a basic understanding of the monetary system. As noted by Otmar Issing, “you have never seen anyone in the tramway reading the monthly bulletin of the ECB” (CB Interview Issing). Yet one does not have to rely on anecdotal evidence to support this observation.¹³⁷ A grow-

¹³⁶ The structure of this chapter is outlined at the end of section 5.1.

¹³⁷ Anecdotal evidence from the author’s personal experience strongly supports the monetary illiteracy hypothesis. The difference between Deutsche Bank and the Bundesbank, for instance, is lost on a significant number of even highly educated people.

ing literature on ‘financial literacy’ documents generally low levels of such literacy among the population (Braunstein/Welch 2002; Willis 2011; Lusardi/Mitchell 2014). Relating more specifically to *monetary* literacy, there is ample empirical evidence on the inaccuracy not only of people’s inflation *expectations* (Blanchflower/MacCoille 2009; de Bruin et al. 2010), but even of their *perceptions* of current rates of inflation, especially in the euro area (Ranyard et al. 2005, 2007; Del Giovane et al. 2008; Duffy/Lunn 2009; Lamla/Lein 2014). Yet in spite of this empirical support for the ‘monetary illiteracy hypothesis’, virtually nothing is known about its implications for monetary governance.¹³⁸ A group of ECB economists are putting it mildly when they call the communication between monetary outsiders and the central bank “a very under-researched field” (Ehrmann et al. 2013: 798).¹³⁹

It is on the basis of this ‘monetary illiteracy hypothesis’ that the present chapter aims to make a positive contribution to the understanding of central bank agency in relation to the governability challenge of creating and sustaining monetary trust among the public at large. Far from being economically irrelevant, outsiders’ perceptions of money and central banking pose challenges in terms of monetary governability that are fundamentally different from the governability challenges posed by insiders.¹⁴⁰ Unfortunately, the study of those challenges requires a serious engagement not only with monetary trust, but also with the institution of money itself – an area where

¹³⁸ Monetary economists have attempted to formalise and model less-than-perfect monetary understanding and its policy implications as ‘rational inattention’. See Sims (2010) for an overview.

¹³⁹ Although one can only speculate about the reasons for the lack of research on the interaction between central banks and the uninformed majority, the explanation may be as simple and profane as the “data limitations” cited by Ehrmann et al. (2013: 798).

¹⁴⁰ By studying the ‘sources of monetary trust’ through the prism of monetary outsiders, the analytical orientation of this chapter resembles that in Seabrooke’s (2006) study of the “social sources of financial power”.

both political science and economics fall short. Generally speaking, the existing literature reduces the question of monetary trust to a question of trust in the ECB as a bureaucratic organisation, while ignoring the social institution of money. Political scientists have mostly treated the question of trust in or support for the ECB as a question of identity. From this perspective, all that is required for the “effective functioning of the euro” is “a sufficient level of Europeanness” (Kaelberer 2004: 162, cf. Risse et al. 1999; Risse 2003).¹⁴¹ Economists’ take on the question of monetary trust, on the other hand, is limited by their methodological dependence on quantitative data. Almost all available studies use statistical analysis to make sense of the results from a single Eurobarometer question that asks respondents if they tend to trust or distrust the ECB (Wälti 2012; Bursian/Faia 2013; Ehrmann et al. 2013; Roth et al. 2014). To put it briefly, neither of these literatures has much to say on the role of the central bank in the (re-)production of money as a social institution. While the economic analysis is prevented by its “problem-solving” approach – as opposed to a “critical” one (Cox 1981: 128-129) – from looking beyond the various layers of ideology surrounding this reproduction, the political science analysis is hampered primarily by its disregard for the social and economic complexities of money.

In order to be able to ask interesting – that is, ideology-piercing – questions about central bank agency in relation to monetary outsiders, this chapter will dedicate considerable space and effort to coming to grips with the ‘nature’ of money. It does so by drawing on what is best called the ‘social studies of money’ literature. In fact, this literature is better referred to as the ‘*new* social studies of money’, so as to set it apart

¹⁴¹ The inverse question of the potential consequences of the common European currency for a common European identity is raised in Helleiner (2002) and Hymans (2004).

from a tradition in the sociology of money that, in line with the Parsonian division of labour with economics, has mostly contented itself with the study of the “social meanings of money” (Zelizer 1994), rather than moving on to the more ambitious goal of formulating a positive theory of money as a *socioeconomic* institution (Ingham 2004: 9-10; Polillo 2013: 2).¹⁴² The very nature of money as both a social institution and a financial claim makes the formulation of such a theory an inherently interdisciplinary undertaking – hence the pluralistic label ‘social studies of money’.¹⁴³ Inspired, in one way or another, by Georg Simmel’s (2011) *Philosophy of Money* and by Mitchell Innes’ (1913, 1914) credit theory of money, this interdisciplinary literature spans sociology (Carruthers/Babb 1996; Ingham 2004; Polillo 2013), Post-Keynesian economics (Moore 1988; Bell 2001), history (Valenze 2006), political economy (Hall 2008; Knafo 2013), literary studies (Poovey 2008), and anthropology (Graeber 2011).

To make the case that an understanding of the institution of money is pivotal to the understanding of central bank agency, section 5.2 briefly reviews the (institutional) economics of money and central banking, while also identifying the shortcomings of a purely economic approach. Answering to those shortcomings, sections 5.3 - 5.5 develop a performative theory of money and monetary trust. Building on Ingham’s (2004) conceptualisation of money as the performative effect of a process of “ideological naturalisation”, I argue that this process is driven by an ‘ideological apparatus’ that in-

¹⁴² Whether or not they follow Parson’s (1963) conceptualisation of money as *the* “symbolically generalized medium of communication”, most sociologists – including Parson-critics such as Habermas and Luhmann – have shown less interest in money itself than in its potential to convey general ideas about the nature of social systems and the communication within and between those systems (Ganßmann 1988).

¹⁴³ The term intentionally echoes the ‘social studies of finance’.

cludes not only the central bank, but also economic theories about money and central banking. Section 5.6 proceeds to applying this framework to the empirical analysis of specific monetary systems. In order to show that central banks' performances in the enactment of monetary trust may vary depending on the structural situation of the monetary system, the analysis of the performance of the Duisenberg and Trichet ECB during the Great Moderation is flanked by brief discussions of the Volcker Fed and of the Bank of England under Mark Carney. These cases serve to bring into sharp relief how the pre-crisis performance of the ECB actively nurtured a 'fiction of exogenous money'. According to this fiction, money created by the banking system (M1 or higher) is determined by central bank money (M0), over which the central bank is said to exert discretionary control – whereas in reality, both M3 *and* M0 are endogenous to the economic process. However, although actively nurtured by central banks during times of low and stable inflation, the fiction of exogenous money has recently become problematic, as unconventional monetary policies have resulted in stark increases in M0, sparking inflationary fears among monetary outsiders.

5.2 The international political economy of money, trust, and central banking

Building on work by institutional economists on transaction costs and uncertainty, scholars such as Michel Aglietta (2002) and Curzio Giannini (2011) describe central banks as the manifestation of the ongoing struggle of societies to deal with the fundamental problem of trust in money – “trust in its future purchasing power and trust in the continued convention that payment is complete when money changes hands” (Giannini 2011: xxv). Without exception, central banks have confronted this task by assuming two broad functions – the “micro-function” of supervising and safeguarding (as the lender of last resort) the stability of the banking system and its individual

members, and the “macro-function” of managing monetary conditions in the interest of exchange rate and/or price stability (Goodhart 1988: 5; Capie 1997: 25). Contrary to the public image of monetary policy as a macroeconomic instrument, the micro-function actually took historical precedent (Goodhart 1988: 5; Hellwig 2014: 15). It was when the banking sectors in London and New York grew larger and more sophisticated that the private sector arrangements to guarantee financial stability proved insufficient (Gorton 1984, 1985), which led to the centralisation of note issuance (via the Bank Charter Act of 1844 in the United Kingdom) and to the foundation of new central banks (the Federal Reserve in 1913).¹⁴⁴

Thus, the institutional innovation of central banking occurred in reaction to the destabilising consequences of the power of private bank lending and note issuance.¹⁴⁵ While this underlying source of instability has remained the same, the techniques of restraining (public and private) money creation have changed with the ‘evolution’ of money. Routinely used by monetary historians (Carruthers/Babb 1996: 1558), the biological metaphor of evolution captures the historical succession of increasingly abstract forms of money and increasingly complex banking systems rather well. For the notion of a relatively linear trend towards more abstract monetary forms certainly ap-

¹⁴⁴ With the notable exception of Britain, publicly owned, national central banks are “essentially a twentieth-century phenomenon” (Capie 1997: 24). Since the beginning of the 20th century, at which point 18 central banks existed, the number has grown steadily – there were 59 central banks in 1950 and 161 in 1990 (Capie 1997: 24-25).

¹⁴⁵ Note that a distinction must be made between the specific historical origins of the first central banks and the responsibilities they subsequently assumed. The early central banks were set up by governments in order to improve their access to financing and to unify and centralise note issuance and metallic reserve management (Goodhart 1988: 4-5). It was only later that these banks – which in some cases had started out as private entities – gradually adopted the task of macroeconomic management that is commonly associated with central banks today. This historical nuance has been duly ignored by those who, like Friedrich von Hayek and James Buchanan, see central banks primarily as the fiscal agents and accomplices of the government. According to Giannini, these adherents of a “‘fiscal’ theory of central banking” have failed to recognise that “identifying the contingent factors that lead to the creation of this or that issuing bank is not the same as searching for the evolutionary mechanism that produced what we now term a central bank” (Giannini 2011: xxi-xxii).

plies to the period since the industrial revolution, which saw a unidirectional movement from ‘full-weight’ metallic coins (commodity money), to gold-convertible (and therefore still commodity) paper money under the various gold standards, to pure paper (i.e., fiat) money.¹⁴⁶ Georg Simmel correctly foresaw this development as early as 1900 – when the international Gold Standard was still intact – yet was doubtful regarding the feasibility of its “conceptually correct” end point:

It is not technically feasible to accomplish what is conceptually correct, namely to transform the money function into a pure token money, and to detach it completely from every substantial value that limits the quantity of money, even though the actual development of money suggests that this will be the final outcome.

(Simmel 2011: 176)

The trade-off hinted at in this passage forms the heart of the institutional economics account of the co-evolution of money and central banking: the trade-off between the economic advantages of more abstract forms of money – lower transaction costs and greater policy flexibility – and the ever more sophisticated institutional arrangements needed to provide the social trust and confidence required by such increasingly *fiduciary* forms of money (Aglietta 2002; Giannini 2011: 27-28).¹⁴⁷ It is worth pointing out that the ‘fiduciary character’ of fiat money does not depend on a sociological worldview. The *economic* reason why commodity money can do with a ‘smaller amount’ of trust is that “it is an asset to its holder but a liability to no one” (Moore

¹⁴⁶ This is not to deny the long-term swings between commodity money and credit money described by David Graeber (2011). It should also be noted that while credit-based payment technologies had existed in Europe since the late middle ages, these had been limited to the wholesale merchant sector until the late seventeenth/early eighteenth century, when, starting in England, credit money became widespread within sovereign monetary spaces (Ingham 2004: 121-131; Giannini 2011: 38-39).

¹⁴⁷ Nevertheless, the history of monetary forms and arrangements cannot be *explained* on grounds of efficiency alone. In particular, Ingham (2004), using Michael Mann’s concept, shows how this history is driven by the struggle between debtors and creditors, between the state and its financiers, for “infrastructural power”. However, Ingham does not deny that the move towards credit money poses considerable institutional challenges in relation to the provision of trust and confidence. For a critique of Ingham’s power struggle theory of monetary history, see Goodhart (2005).

1988: 13). Fiat money, in contrast, exists only as a liability to its issuer. The circulation of these debts as money requires their issuer to be trusted by the users of money.

It should therefore not surprise us that the replacement of metallic commodity money by gold-convertible paper money during the late 19th century coincided with the rise of the modern national state. For not only did governments of that period have their own (nationalistic) reasons for joining the international gold standard (Helleiner 1999: 140-145), but national states were also the first polities that had the *institutional capacity* to implement the shift towards fiduciary money at all levels of the economy (Giddens 1985: 155-158). Subsequently, the postwar international monetary agreement of Bretton Woods, under which all major currencies were pegged to the dollar – the only currency that retained its gold convertibility at the old interwar price of \$35 per ounce – constituted a further step towards abstraction.¹⁴⁸ It was only in 1971, when President Nixon announced the closing of the gold window, that all money became fiat money.¹⁴⁹

While the problem of monetary trust would have come to the fore in any case under these new conditions, the ‘Great Inflation’ of the 1970s made sure the it did so in a rather dramatic fashion. The result was a shift of the gravitational centre of the monetary order from the international to the national sphere, and thus a ‘central bank-centric monetary order’ under which the burden of restoring trust in the new pure fiat money standard fell disproportionately to central bankers (Aglietta 2002: 50).¹⁵⁰ Over

¹⁴⁸. Note that after 1933 dollar convertibility applied only to foreign central banks, not to individuals.

¹⁴⁹. In light of “the elimination of gold reserve requirements for Federal Reserve deposits in 1965 and Federal Reserve notes in 1968” Friedman (1992: 250) judged that Nixon’s closing of the gold window “simply set the seal on an ongoing process”. See also Redish (1993).

¹⁵⁰. Hall (2008: 167) cites a 1999 New York Times article titled, “Who needs gold when we have Greenspan?”.

the years, the monetary experiments of the 1980s and 1990s created the most elaborate institutional configuration yet – the “trinity” of *independent* central banks equipped with *price stability* mandates and committed to *accountability and transparency* (Svensson 2011: 1238). This arrangement was considered to have found its fullest realisation yet in the statute of the European Central Bank, whose independence from government interference was bolstered by its supranational character and by the lack of a fiscal counterpart at the European level.¹⁵¹

To summarise, this section has shown that the centrality of trust in the international political economy of money and central banking is firmly established in economics. That said, the economic analysis of monetary trust falls short in two important respects. Firstly, it has little to say about the *social nature of money*, that is, about its social production and re-production. Secondly, due to its primary concern with the economics of private banking, the economic analysis of trust displays a narrow focus on trust among monetary insiders. Monetary trust *among outsiders* is implicitly treated as a corollary of trust among the financial elite. Tapping into the ‘social studies of money’ literature, the following two sections develop a performative understanding of money and trust.

5.3 Money as credit and the hierarchy of money

What is the nature of money? In order to answer this question it is first necessary to specify which of the textbook functions of money – medium of exchange, store of value, or unit of account – is decisive for the “quality of ‘moneyness’” (Ingham 2004:

¹⁵¹ However, as rightly pointed out by Tommaso Padoa-Schioppa (2004: 180) with regard to the isolated position of the ECB, independence should not “be confused with loneliness”.

6). Economists have traditionally embraced the commodity theory of money, which locates moneyness in the medium-of-exchange function of money. Originally formulated by Aristotle, the commodity theory was canonised for economics by Adam Smith (1976: book 1, ch. IV) and Carl Menger (1892).¹⁵² Starting out from the hypothetical – and historically doubtful – scenario of a pure barter economy¹⁵³, their narrative describes how the commodity that proves most ‘liquid’ or exchangeable is gradually and spontaneously adopted as money by the members of the community. However, the analytical problem with this account is that by focusing on the medium-of-exchange function of money, the commodity theory commits a “category error” – it mistakes “specific forms of money ... for the generic quality of ‘moneyness’” (Ingham 2004: 69). Given the multiplicity of money ‘things’, material features such as metallic content cannot possibly be the hallmark of moneyness.¹⁵⁴ Instead, it is the abstract money of account – ‘the dollar’ or ‘the euro’ – that gives the concrete money ‘things’ their value: “Money-of-account is the *description* or *title* and money is the *thing* which answers the description” (Keynes 1930: 3, original emphasis; cf. Innes 1913: 16; Ingham 2004: 70).¹⁵⁵

¹⁵² The intuitive analysis by Smith and Menger was formalised, among others, by Brunner and Meltzer (1971), Alchian (1977), and Kiyotaki and Wright (1989).

¹⁵³ For definitive rejections of the ‘myth of barter’ see Humphrey (1985) and Graeber (2011: 21-41). The related myth that the invention of coinage emerged directly from moneyless barter and preceded the invention of credit was refuted already by Innes (1913: 389), who argued “that the precise reverse is true”.

¹⁵⁴ Money, after all, has always existed in many forms. According to Innes (1913: 385), feudal France had as many as eighty different coinages, “differing as to weights, denominations, alloys and types”. Similarly, in the 19th century, “the pound sterling was represented by a range of media – gold sovereigns, myriad bank notes, inland bills of exchange, local copper coinage” (Ingham 2004: 71). Today, money ‘things’ comprise not only notes and coins, but also credit cards, prepaid cards, digital credits (Paypal), crypto-currencies, local currencies, etc.

¹⁵⁵ This argument about the logical priority of the unit-of-account function is supported also by the historical finding that Mesopotamian and other credit systems “actually *preceded* the invention of coinage by thousands of years” (Graeber 2011: 38, original emphasis).

Yet if it is not a commodity, then what is this thing called money? The answer is that it is not a ‘thing’ at all. Instead, money is a credit for its holder and a debt for its issuer, denominated in the unit of account. In other words, money is “constituted by credit-debt relationships” (Ingham 2004: 72). This is true regardless of the monetary standard and of the material form of money – even in the case of a pure commodity money system in the form of full-weight metal coins, in which a debt is still created “by the issuer’s promises to accept back its money in settlement”, most notably of tax obligations (Ingham 2004: 72).¹⁵⁶ However, it was not until the English ‘financial revolution’ and the establishment, in 1694 and for war-financing purposes, of the Bank of England (Carruthers 1999: 139-146; Wennerlind 2011: 109-114), that the conditions for “the production of capitalist credit money” were in place (Ingham 2004: 134). In fact, it took another one and a half centuries for the Bank of England to fully monopolise the issuance of ‘negotiable’ (i.e., transferable) banknotes, and thus to establish the key mechanism of capitalist credit money – the “transformation of privately contracted debts into money” (Ingham 2004: 135).¹⁵⁷ Namely, by ‘accepting’ – that is, by buying at a discount – privately issued bills and notes, the Bank of England swapped these private promises to pay for fully transferable public promises to pay. This mech-

¹⁵⁶ This view that money is credit irrespective of the materiality of the money ‘thing’ goes back to Simmel (2011: 190-191). Innes reached the conclusion that “all the coins were tokens” on the basis of numismatic evidence that most ancient coins bore no indication of their metal content (Innes 1913: 382). The fiduciary character of gold coins was highlighted also by François Simiand: “Precious metal money and so-called fiduciary money are often contrasted. We realise now that all money is ‘fiduciary’. Gold is only the premier fiduciary money: it is no more. But it is no less” (Simiand 2006, quoted in Orléan 2013: 62).

¹⁵⁷ Established in 1694, the Bank of England had monopolised the issuance of banknotes as early as 1742. However, this monopoly was limited to a 65-mile radius around London. Therefore, until Peel’s 1844 Bank Charter Act established a national monopoly for the Bank of England, the notes issued by provincial banks continued to circulate locally (Redish 1993: 783; Ferguson 2008: 50-55). It should also be noted that while notes issued by private banks had long been circulating across Europe, they had done so only among a small elite of merchants, which gave them the character of private rather than public money (Ingham 2004: 121).

anism of monetising private loans by making them exchangeable with sovereign promises to pay is the public-private partnership at the heart of capitalist credit money systems. It certainly underpins the monetary system of the euro area, where demand deposits created through bank loans make up for the largest part of the ‘privately contracted debts’ that serve as money. This ‘deposit’ or ‘inside money’ is exchangeable at par for central bank or ‘outside money’, which is the equivalent of a sovereign ‘promise to pay’ under a fiat money standard.¹⁵⁸

For the purpose of the present argument, the key implication of the credit theory of money is that due the differences in the *quality* of the various financial claims that circulate as money all monetary systems are hierarchical (Mehrling 2000: 403; Bell 2001). Usually hidden from the parties of a monetary transaction by the invisible operation of the payments system, this hierarchy manifests itself only at the point of *final settlement*. Thus, while person A may pay her debt to person B by issuing a cheque (a low-quality debt), final settlement will only be achieved once A’s bank transfers the amount written out on the cheque to B’s bank in the “asset of ultimate settlement” (Moore 1988: 13). Depending on the type of money that is used in an economy, and depending on the operational details of the payments system, the visibility of the hierarchy of money may vary considerably. Thus, under the gold-backed paper money standard of the 19th century, the hierarchy of money was readily visible to all users of money because it was bound up with the *representational nature* of gold-backed paper money. As payments were increasingly made in paper money, peo-

¹⁵⁸. In order to avoid confusion, it should be emphasised that the terms ‘fiat money’ and ‘credit money’ operate at different conceptual levels. ‘Fiat money’ is money that is not ‘backed’ by any intrinsically valuable commodity. The term thus refers to the materiality of the money thing. The term ‘credit money’, on the other hand, denotes that a financial claim that circulates as money has its origin in a (private) loan, as is the case for today’s deposit money. Although since 1971 the two usually go together, ‘credit money’ may or may not be ‘fiat money’, and ‘fiat money’ may or may not be ‘credit money’.

ple were nevertheless aware that this money was, to a greater or lesser extent, ‘backed’ by precious metal, which retained its function as the asset of ultimate settlement.¹⁵⁹ The result was a fairly straightforward “anchor chain” (Redish 1993) or “problematic of representation” (Poovey 2008: 62) – a problematic that would surface “only when the mechanisms intended to manage the gap between the representative of value and its ground fail[ed] to work efficiently” (Poovey 2008: 62).

Compared to this relatively transparent situation, the switch to a global fiat money standard and the deregulation of banking have created a persistent conceptual muddle. For on the one hand, fiat money simplifies the monetary system by *eliminating the problematic of representation*. After 1971, paper money did no longer ‘represent’ a higher standard of value such as gold – the euro and other currencies are pure fiat money. This, of course, is very well understood by the users of money. *The hierarchy of money*, on the other hand, *continues to exist* in the division between publicly issued outside money and privately issued inside money (ECB 2011h: 65).¹⁶⁰ Today, outside money – consisting of cash (notes and coins) and the reserves of private banks with the Eurosystem – occupies the top position in the hierarchy of money that was previously held by gold or silver. Created through central bank lending to (or securities purchases from) the banking system, outside money constitutes a liability of the cen-

¹⁵⁹ In Britain, users of money were – and, anachronistically, still are – reminded of the representational nature of banknotes every time they look at one and read the Bank of England’s promise “to pay the bearer on demand the sum of [denomination of the note] Pounds”. Today, the promise is taken to mean that the “Bank of England promises to honour its debt by exchanging banknotes, including those no longer in use, for others of the same value” (Bank of England 2014b: 9),

¹⁶⁰ As noted in footnote 63 above, the terms ‘high-powered money’, ‘central bank money’, ‘base money’ and ‘outside money’ are largely synonymous. (This proliferation of names speaks volumes regarding the confusion that surround the hierarchy of money.) In line with the language employed by the ECB, I will in the following use the term ‘outside money’, which allows for the clearest distinction with privately issued ‘inside money’. (Note that the resemblance with the monetary insider-outsider distinction is purely coincidental.)

tral bank.¹⁶¹ Yet outside money makes up for “only a rather small fraction of total money balances” (Issing 2000: 23), the larger share of the money supply consisting of ‘inside money’. Created through private bank lending to businesses and households and existing mainly in the form of bank deposits, inside money is a liability of the banking sector.

5.4 Money and ‘ideological naturalisation’: Towards a performative theory of money

The discussion in the previous section shows that at the time of Innes’ writing there was already ample evidence that the credit theory of money was essentially correct. And yet, until very recently, Innes’ views did not only fail to become public knowledge, but also remained marginalised in academic and public discourses on money.¹⁶² Tellingly, Innes himself was perfectly aware of the fate that would await his work. In spite of being quite confident of having it right, he had little hope of attracting many followers among the larger public:

The main obstacle to the adoption of a truer view of the nature of money is the difficulty of persuading the public that ‘things are not what they seem,’ that what appears to be the simple and obvious explanation of everyday phenomena is incompatible with ascertainable, demonstrable facts – to make the public realise, as it were, that while they believe themselves to be watching the sun’s progress round the earth, they are really watching the progress of the earth round the sun.

(Innes 1914: 154)

¹⁶¹. Note that although it is still treated as a liability in accounting terms, central bank money is “no longer debt in any meaningful sense of the word”, as rightly pointed out by Hellwig (2014: 10): “The issue of bank notes does not oblige the central bank to do anything. And the deposit that a private bank might have with the central bank obliges the central bank to give the corresponding amount in notes on demand to the private bank; this is an obligation that the central bank can *always* fulfil.” While this argument is correct in economic terms, in social and political terms the central bank nevertheless incurs a ‘debt’ to society by promising to maintain the value of its liabilities.

¹⁶². Most recently, the situation has been changing with David Graeber’s (2011) bestselling *Debt: The First 5,000 Years* and Felix Martin’s (2013) accessible *Money: The Unauthorised Biography*, both of which embrace Innes’ credit theory of money.

Indeed, Innes would soon see his pessimism vindicated. Although the first of his two articles was prominently and positively reviewed by Keynes, Innes subsequently “disappeared from view for some three-quarters of a century” (Wray/Bell 2004: 2). Crucially, this marginality of the credit theory of money is more than just an anecdote from the history of monetary thought, but is itself a direct manifestation of the social (re-)production of money.

This (re-)production operates through what Ingham, drawing on Mary Douglas’ notion of ‘naturalisation’, calls the “ideological naturalization of money” (Ingham 2004: 37, 80). According to Douglas, the stabilisation of nascent institutions requires that their invariably social foundations are hidden from view. The human elements of an institution must disappear behind naturalising analogies – “an analogy by which the formal structure of a crucial set of social relations is found in the physical world, or in the supernatural world, or in eternity, anywhere, so long as it is not seen as a socially contrived arrangement” (Douglas 1986: 48). In no other social institution is this mechanism more evident than in the case of money. Here, the result of successful naturalisation is what Mirowski (1991: 580) has described as “the working fiction of a monetary invariant through time”. In the case of money, the ‘socially contrived arrangement’ that this fiction conceals is the credit-debt nexus that, as explained above, is the essence of money.¹⁶³

¹⁶³ It should be noted that the notion of ‘naturalisation’ is very similar to Searle’s theory of institutional facts, in the sense that successful naturalisation results in money becoming an institutional fact (Searle 1995). For the purpose of the present analysis, however, little would be gained from adopting Searle’s somewhat cumbersome conceptual apparatus. For a skilful application of Searle to matters of monetary governance, see Hall (2008).

While this is true for any monetary system, the challenge varies with the monetary standard. Thus, for many centuries the social foundations of money were ‘anchored’ in the physical world – literally in the soil of the earth – via the (fictitious) identity of money and precious metal.¹⁶⁴ The advent of credit money in the 18th century and the subsequent movement towards increasing monetary abstraction made the naturalisation of money both more vital and more difficult to achieve. As pointed out by Ingham, the naturalisation of money took an *ideological turn*, whereby the naturalising function previously performed by precious metal was gradually assumed by economic theories of money and banking.¹⁶⁵ This naturalisation is ‘ideological’ in both senses of the word – it is of ideational rather than of physical character, and it *conceals* the credit-nature of money and the hierarchical structure of the monetary system.

Through their performative role in the building and sustaining of “the fiction of universal, immutable, natural money” monetary theories thus act as “an essential part of the social process of producing money” (Ingham 2004: 56, 80). Yet if money is based on fictions that conceal the very social relationships that underpin it, how can there be ‘trust in money’? The following section develops a concept of monetary trust that is compatible with the theory of money as the performative effect of an ideological naturalisation.

¹⁶⁴ Note that the moneyness of metal coins also depended on more coercive performances. One particularly gruesome practice is reported by Innes. In order to get the public to accept and use his coins, a Carolingian king gave orders that “the coin which had been refused was heated red-hot and pressed onto the forehead of the culprit, ‘the veins being uninjured so that the man shall not perish, but shall show his punishment to those who see him’” (Innes 1913: 384).

¹⁶⁵ A more hands-on approach to the naturalisation of paper money is illustrated by the regional country banks of 18th century Britain adorning their banknotes with images of farm animals – “a rudimentary, because literal, attempt to naturalize country banks’ notes” (Poovey 2008: 47).

5.5 The sociology of monetary trust and the ideological apparatus of monetary policy

According to the standard definition that is widely shared among economists and other social scientists, monetary trust is “trust in [money’s] future purchasing power and trust in the continued convention that payment is complete when money changes hands” (Giannini 2011: xxv, see also Cohen 1998: 147; Issing 2002: 22).¹⁶⁶ While no doubt correct from an economic point of view, this definition is problematic in that it presupposes a high degree of economic literacy. For in a modern credit money system, having ‘trust in money’s future purchasing power’ means to have trust not only in the commitment of the government and of the central bank to maintain the value of the currency. It also means having trust in the functioning of the monetary transmission mechanism through which the central bank exerts control over inflation; in the fiscal discipline of the government; in the banking system that creates the bulk the money supply; in the effectiveness of microprudential and macroprudential regulation of the banking system; in the central bank’s readiness to act as lender of last resort to the banking system; in the government’s commitment to its promise to underwrite private money through deposit insurance schemes; and – as will be discussed in chapter six – in the least visible institution of all, the payments system.

¹⁶⁶ Interestingly, whereas institutional economists and sociologists tend to emphasise trust as the crucial condition for the continuing existence of money, neoclassical theories tend to emphasise the opposite condition – the absence of complete social trust – in order to explain the *emergence* of money. If there was complete trust all exchange could be organised through credit arrangements. In that sense, “Evil is the root of all money”, as the argument is famously summed up in the title Kiyotaki and Moore (2002). However, the old category mistake of taking the money ‘thing’ for money itself diminishes the analytical value of this argument. For how can money things (such as paper money) be superior to credit if money *is* credit? Keynes’ view of money as one convention among other, even more fragile conventions, is more convincing. He argues that liquidity preference – the desire to hold money as a store of value – is particularly strong “at the moments when the higher, more precarious conventions have weakened” (Keynes 1937: 216).

The point of giving such a lengthy list of the institutional underpinnings of the ‘future purchasing power of money’ is to specify the meaning of ‘monetary ignorance’, as well as its implications for monetary trust. I intend the term to carry the same meaning as Aglietta and Cartelier’s (1998: 147) notion of “méconnaissance”, which conveys the idea that “economic agents fail to understand the monetary system in which they act, that they are necessarily victims of a misunderstanding (méconnaissance) with respect to this central and determinant institution” (Grahl 2000: 312). Regarding monetary trust, this raises three questions: Given their misunderstanding of the monetary system, what exactly is the *nature*, and what the *object* of monetary outsiders’ trust? And how and by which *agency* is this trust created and sustained? The discussion of these questions leads up to the crucial insight from the theoretical part of this chapter – namely, that ‘méconnaissance’ of the monetary system is not necessarily a problem for, but often a constitutive element of monetary trust.

Regarding the *nature* of monetary trust, the works of Simmel and of Giddens – both of whom elaborate their notions of trust in the context of discussions of money – are particularly helpful. The starting point is Simmel’s distinction of “nuances” of economic trust. For a farmer to be willing to sow he must trust in his field bearing grain the following year. Yet while this type of trust is “only a weak form of inductive knowledge”, the case of credit requires something more, “an additional element which is hard to describe” – something akin to a “supra-theoretical belief” or a “social-psychological quasi-religious faith” (Simmel 2011: 191-192).¹⁶⁷ Giddens’ discussion of

¹⁶⁷ For a systematic reconstruction of Simmel’s thinking on trust, see Möllering (2001). It should be noted that Aglietta and Cartelier (1998: 146), quoted above, also subscribe to Simmel’s notion of monetary trust as faith (“croyance”).

the institutions of modernity elaborates on Simmel's sparse remarks on trust. The starting point is Giddens' conceptualisation of institutions as the result of processes of "disembedding", defined as "the 'lifting out' of social relations from local contexts of interaction and their restructuring across indefinite spans of time-space" (Giddens 1990: 21). Describing the kind of trust required by such disembedded institutions, Giddens, like Simmel, emphasises faith and commitment over cognitive understanding. Precisely because of their remoteness and complexity, modern institutions require "modes of trust ... [that] rest upon vague and partial understandings of their 'knowledge base'" (Giddens 1990: 27).

This brings us to the second part of the question, which concerns the *object* of monetary trust. Here, the first thing to note is that, as argued above, the gradual historical movement from a commodity money to a fiat money standard – and thus from precious metal coinage to more abstract forms of money – required increasingly sophisticated trust-creating institutions, such as the ones listed at the beginning of this section. The inevitable side effect has been a widening gap between the complexity of what Giddens calls the 'knowledge base' of these institutions and the necessary simplicity of the beliefs that underpin public trust. Yet if monetary outsiders are, for all practical purposes, ignorant of the 'knowledge base' of monetary institutions (cf. Blinder et al. 2001: 23), then what precisely is the object of their monetary trust? It is here that Ingham's understanding of money as the performative effect of a process of naturalisation – a process which, by definition, obscures the inner workings of money to a certain extent – complements Simmel and Giddens' view of trust as faith rather than as cognitive grasping of the inner workings of institutions. Bringing these two threads of the argument together, we can give a general definition of 'trust in money'

as the *belief in the naturalised image of money*. Taking this argument one step further, the following section will show that in a credit money system like that of the euro area, this naturalised image renders the hierarchy of outside and inside money invisible and, at the same time, exaggerates the control of the central bank over the money supply.

Thirdly, there is the question of *agency*: Who or what performs this naturalised image of money that is the object of monetary trust? In contemporary credit money economies the central bank is certainly the key ‘actor’ – both in the sociological and the theatrical sense of the term – in the enactment of monetary trust. However, this enactment also involves important other elements – most notably economic theories (Ingham 2004: 145), but also technology, law, and culture. In line with the language of the two previous chapters, the combination of elements that brings about the performative effect of ‘naturalised money’ is best described as an *ideological apparatus*.

To summarise, three insights from the theoretical first part of this chapter are of particular relevance for the following empirical analysis. First, creating and sustaining ‘trust in money’ among monetary outsiders is a constitutive element of monetary governability. Second, monetary trust is generally based on a “fiction of universal, immutable, natural money” (Ingham 2004: 80). Third, this fiction is the performative effect of a process of ideological naturalisation. The empirical challenge, then, is to study the elements and the workings of the ideological apparatus that underpins the naturalisation of money.

5.6 After Bretton Woods: Performing credit money with disinflation, low inflation, and quantitative easing

As argued in the introduction to this chapter, studying the production of monetary trust requires an approach that focuses on monetary outsiders. Regarding the collection of empirical data, this poses non-trivial methodological difficulties (cf. Ehrmann et al. 2013: 798). Large-n surveys of monetary outsiders' attitudes towards money and monetary authorities do little to illuminate the underlying performative mechanisms. At the same time, an interview-based strategy is unfeasible given the very large population of monetary outsiders. While their smaller numbers would render such a strategy feasible for central bankers, the ideological character of the naturalisation of money greatly reduces the analytical payoff that can be expected from interviews with monetary policy-makers who are trained not to deviate from the official policy line. In light of these problems, the following analysis takes the form of a close description of the performances – as regards their control over monetary aggregates – of the Fed, the Bundesbank, the ECB, and the Bank of England. As explained in chapter two, this analysis is based on an understanding of 'performance' that is closer to Goffman than to Callon in the sense that the intransitive meaning of 'to perform' will overshadow the transitive sense in which Callon uses the verb. Cross-checking those performances against research on the internal thinking at the institutions in question will show that central bank performances are "cynical" rather than "sincere", in the sense that the performers do not "believe in the impression fostered by their own performance" (Goffman 1959: 10). While the description of the Volcker Fed as a 'cynical performer' follows well-established findings, the following account challenges the dom-

inant transparency narrative by suggesting an interpretation of the ECB's performance as equally 'cynical'.

5.6.1 *'Look, no hands': Why the Volcker Fed pretended to target monetary aggregates*

The culture of *strategic secrecy* in central banking was epitomised by Alan Greenspan's famous quip during a congressional hearing in 1987: "Since I've become a central banker, I've learned to mumble with great incoherence. If I seem unduly clear to you, you must have misunderstood what I said" (quoted in Geraats 2007: 37). Greenspan was only half joking. For not only were central banks "shrouded in mystery" until the early 1990s – they also "believed they should be" (Blinder et al. 2008: 910).¹⁶⁸ When it comes to making sense of the rationale behind central bank secrecy, three explanatory narratives co-exist – the effectiveness narrative of rational expectations economics, the effectiveness narrative advanced by policymakers, and the accountability-avoidance narrative advanced by more politically-minded observers. According to the first narrative, strategic secrecy among central bankers was the direct result of the application of the rational expectations view to monetary policy (Cukierman/Meltzer 1986), according to which "only unanticipated monetary policy movements could be effective" (Hall 2008: 209). However, as noted by Blinder et al. (2001: 14), in light of the lack of empirical evidence central bankers had never really bought into the theoretical conjecture of monetary neutrality. Instead, as shown by Goodfriend (1986: 71), forced by a court case to justify central bank secrecy, policymakers constructed an alternative effectiveness narrative that contained five argu-

¹⁶⁸ Even during the 1990s the adoption of more transparent communicative strategies at the Greenspan Fed proceeded only slowly (Poole 2005: 2). Until February 1994, the Fed did not make public changes in its short-term interest rate target, leaving the task of figuring them out to market participants (Blinder et al. 2001: 36). In Europe, the Bundesbank remained notoriously opaque all the way to 1999.

ments against greater transparency – unfair speculation, inappropriate market reactions, harm to the government’s commercial interest, undesirable pre-commitment, and more difficult interest rate smoothing.¹⁶⁹

While there is no doubt that considerations along those lines had an influence on the way in which monetary policy was conducted at the time, arguments advanced by the defendants in a Freedom of Information Act court case can hardly be relied on as telling the whole story. This leaves the third narrative, according to which central bankers’ penchant for secrecy has more to do with the strategic calculus of the central bank as a *political* institution. Commenting on a draft version of Fischer’s famous ‘Rules versus discretion’ article, Milton Friedman criticised Fischer for ignoring “the public choice perspective” – that is, the self-interested motives in the loss function of policymakers (quoted in Fischer 1990: 1181): “From revealed preference, I suspect that by far and away the two most important variables in their loss function are avoiding accountability on the one hand and achieving public prestige on the other.”

Since Friedman’s off-the-cuff remark, others have retrieved solid supporting evidence from interviews with policymakers and from the minutes of the FOMC. Between 1979 and 1987, the Fed followed a monetary targeting approach, which caused the effective Fed funds rate to surge to the unprecedented level of up to 19% in 1980/81. The point was that under monetary targeting the responsibility for high interest rates could be assigned to financial markets, thus deflecting the popular backlash from the severe recession that followed the ‘Volcker shock’ (Greider 1987: 104-123;

¹⁶⁹ This narrative was for the first time laid out publicly by members of the Federal Open Market Committee (FOMC) of the Fed in the context of a court case that had its origins in a Freedom of Information Act Request of an individual citizen and ended up being heard by the U.S. supreme court (opened in 1975, the case was decided in 1981 in favour of the FOMC). The primary sources for Goodfriend’s (1986) analysis were the affidavits of the questioned Fed officials.

Krippner 2011: 116-123). The following statements were made in the context of debates within the FOMC about the relative merits of targeting the short-term interest rate (the traditional approach) versus targeting a monetary aggregate:

There really is only one reason why we should have abandoned the federal funds target procedure to go to the [nonborrowed] reserve target. And that is because if we operate on federal funds, we explicitly take responsibility for what is happening to interest rates and then this becomes a very difficult world to live in.

Lyle Gramley, FOMC transcripts (Feb. 2-3, 1981), quoted in Krippner (2007: 491)

Governor Wayne Angell concurred that it was important that the technique used by the committee “have the camouflage of market forces at work”.

Krippner (2011: 122), quoting from FOMC transcripts (December 13-14, 1988, p. 9)

I think what we learned in the 1970s – and we should keep it in the back of our minds – is that publishing a funds range at a time when we need to push the funds rate up would pose a hazardous duty. And we should never get back to doing that.

Frank Morris, FOMC transcripts (March 29, 1988, pp. 23-24), quoted in Abolafia and Hatmaker (2013: 548)

Everyone could say: ‘Look, no hands.’

Anonymous Reserve Bank president, quoted in Greider (1987: 107)

The authors from whose work these quotes are taken rightly concur with Friedman’s assessment that ‘public prestige’ was the goal that motivated the FOMC’s choice for strategic secrecy. Yet this finding begs a set of crucial questions that receive no consideration at all in the literature. Firstly, who exactly is being ‘fooled’ by central bank secrecy? Here, the literature fails to acknowledge that the FOMC’s depiction of the surge in interest rates as a market outcome did not fool monetary *insiders*. Looking through the smokescreen of monetary targeting the latter were fully aware of the Fed’s authorship of the interest rate rise and the recession. When an FOMC member expressed his reservations against “a procedure that really involves trying to fool the public” (Abolafia/Hatmaker 2013: 546), what he really meant was talking about a procedure that was trying to fool monetary *outsiders*.

This leads to the second question of whether the concern with “image buffing” (Abolafia/Hatmaker 2013: 544) was specific to the Volcker Fed, or whether it might be related to deeper, structural forces that go beyond bureaucratic politics. In order to answer this question one must first be clear about why the Fed went to such lengths to preempt opposition from monetary outsiders in the first place. On the one hand, the financial industry supported Volcker’s aggressive monetary stance to bring down inflation.¹⁷⁰ And yet, if aware of the Fed’s authorship of the recession, households could have withdrawn their support from the central bank, for instance by exerting electoral pressure on Congress to reign in the Fed.¹⁷¹ By putting the central bank’s independence at risk, such a scenario would inflict serious damage on a key element of the ideological apparatus of the US monetary system.

It is due to this link to the performative naturalisation of money that ‘image buffing’ is by no means limited to the case of the Volcker Fed. Central bankers’ pursuit of ‘public prestige’ – although often motivated by inter- or intra-bureaucratic politics – is intrinsically bound up with the necessity for the central bank to play its part in the performative naturalisation of money. The advent of ‘transparency for insiders’ has therefore by no means eliminated the incentives for central banks to keep the ‘mystique’ of central banking.¹⁷² The next section shows that this is true even for the ECB.

¹⁷⁰ When urged by a group of legislators from farm states to mitigate their economic plight by easing monetary policy, Volcker reportedly replied, “Look, your constituents are unhappy, mine aren’t” (Greider 1987: 676).

¹⁷¹ A scenario that is less far-fetched than it may seem, as illustrated by the popularity of Senator Rand Paul’s Audit-the-Fed campaign as well as by recent efforts by House Republicans to formulate legislation that would subject the Fed to a strict anti-inflation policy rule (Financial Times 2013, 2014).

¹⁷² In Krippner’s (2011: 123) account, the shift towards transparency occurs rather abruptly. Describing the situation after the 1987 stock market crash, she writes: “In the context of an extremely fragile situation in financial markets, the Federal Reserve had to be sure that its position supporting the market was absolutely clear. Suddenly the ambiguity associated with the ‘camouflage of market forces’ was a liability.” As far as communication with monetary insiders is concerned, there is nothing wrong with

5.6.2 Money under control: Performing the fiction of exogenous money in the euro area

The key insights of the discussion so far can be summarised as follows. First, while all money is based on debt, capitalist money is based on *private* debt – it is the result of the transformation of privately contracted debts into public money. Second, in such a credit money system central bank control over the money supply replaces coinage and precious metal pegs as the ‘nominal anchor’ of the system. Third, public ‘trust in money’ means trust in the naturalised image of money. Fourth, the apparatus that performs the naturalisation of money is ideological in the sense that includes monetary theories that conceal the credit-nature of money and the qualitative differences between the various financial claims that circulate as money. Fifth, a central bank cracking down on high inflation may try to protect itself by playing down its control over interest rates.

The present section applies these insights to the case of the fiat money system of the euro area. Here, as in any other fiat money system, the ‘nominal anchor’ function previously fulfilled by coinage or a precious-metal peg is assumed by the “trinity” of an independent and accountable central bank with a price stability mandate (Svensson 2011: 1238). However, the performative perspective on money and trust developed in this chapter suggests that this trinity constitutes only the legal and political dimension of the apparatus that governs monetary outsiders. On top of those there is a crucial *ideological* dimension to the performative naturalisation of money as an exogenous

this account. The question of what the new ‘transparency’ meant to monetary outsiders, however, is not addressed by Krippner (or, for that matter, by other historians of monetary policy).

quantity under the direct control of the ECB – a performance closely associated with what De Long (2000) has called “Political Monetarism”.

The first step in this analysis is a reality check – how does money creation work in the euro area? Three points need to be emphasised. First, in order to make a loan – thereby creating new money – banks do not depend on savers’ deposits. When making a loan of €1000, a bank expands its balance sheet by adding two offsetting items – ‘€1000 loan’ on the asset side, ‘€1000 deposit’ on the liability side. Loans, in other words, make deposits (Schumpeter 1954: 1114; King 2012a: 3). Second, the creation of such inside money does not depend on the available supply of outside money, but on the borrowing behaviour of firms and households and on the lending behaviour of the banking system. This is because banks do not need to hold reserves in order to make a loan. Instead, the reverse is true – they make a loan and *then* borrow the necessary reserves, either in the interbank market or from the ECB (Holmes 1969; Constâncio 2011). Third, outside money is *not* an exogenous variable under the discretionary control of the central bank. This is because, as explained in chapter three, a central bank that targets the interest rate *must* provide the reserves demanded by the banking system in order to achieve its target. If the ECB refrained from providing precisely that amount of reserves implied by the amount of inside money already created by the banking system, it would miss its own target for the overnight interbank interest rate EONIA, disrupt the money market, and endanger financial stability. In other words, *both* inside *and* outside money are endogenous to the interaction of loan demand and lending behaviour in the economy, as in practice the central bank has no choice but to validate inside money creation *ex post* (Goodhart 2001: 14-16, 2007: 57; Ingham 2004: 137, 142, 151).

This endogeneity of the money supply is by no means a recent phenomenon, but has been the case “almost without exception, in all countries managing their own monetary policy for almost the whole of the last century, in the UK for even longer” (Goodhart 2001: 15). It has long been highlighted by Post-Keynesian economists and is widely confirmed by central banks such as the ECB (2011h: 65) and the Bank of England (2014a, 2014b).¹⁷³ However, in the perception of the public – including economics graduates, economic journalists, politicians, etc. – these features of the monetary system of the euro area have been overshadowed by a conventional monetary wisdom inspired, above all, by monetarism. Monetarism is closely associated with the work of Milton Friedman (1956; Friedman/Schwartz 1963), which revived and updated the quantity theory of money (Fisher 1911). At the heart of monetarism is the quantity equation of money, which, in its basic transactions form, is written as $MV = PQ$, where M, V, P, and Q, respectively, denote the nominal quantity of money, money’s ‘velocity’ of circulation, the price level, and the volume of real transactions per period. As long as no restrictions are imposed on the behaviour of individual terms, the quantity equation is an identity without empirical content, in which “[t]he right-hand side of the [equation] corresponds to the transfer of goods, services, or securities; the left-hand side, to the matching transfer of money” (Friedman 2008: unpaginated). It is under the assumption of the long-run ‘neutrality of money’ – meaning that changes in M do not affect the long-run trends of V and Q – that the form $P = MV/Q$ carries the core message of monetarism “that *inflation is always and everywhere a monetary phenomenon* in the sense that it is and can be produced only by a

¹⁷³ The long line of Post-Keynesian arguing in favour of endogenous money includes Nicholas Kaldor, Victoria Chick, Basil Moore, and Randall Wray (Goodhart 2007: 57).

more rapid increase in the quantity of money than in output” (Friedman 2008: unpaginated). That said, what De Long (2000: 88-90) calls “Classic Monetarism” featured complex and nuanced debates over whether M could actually be controlled by the central bank, and whether velocity and the relationship between output and the demand for money were stable over time. Fortunately, in the context of this chapter these discussions need not concern us, since the quite different doctrine that became such a powerful political force in the 1970s was “Political Monetarism”:

Political Monetarism argued not that velocity could be made stable if monetary shocks were avoided, but that velocity *was* stable. Thus, the money stock became a sufficient statistic for forecasting nominal demand, and central bankers could close their eyes to all economic statistics save monetary aggregates alone. Political Monetarism argued not that institutional reforms were needed to give the central bank the power to control the money supply tightly, but that the central bank already did control shifts in the money supply. ... Everything that went wrong in the macroeconomy had a single, simple cause: the central bank had failed to make the money supply grow at the appropriate rate.

(De Long 2000: 91, original emphasis)

Four key elements of this simplified version of monetarism have come to define conventional monetary wisdom not only in the media, but even in virtually all macroeconomic textbooks. First, since inflation is always and everywhere a monetary phenomenon, controlling the quantity of money is sufficient to preserve its value. Second, central banks implement their monetary policy stance by manipulating, via open market operations, the supply of the ‘monetary base’ (i.e., outside money). Third, central bank control over outside money implies control over the amount of inside money created by the banking system, the ratio between the two being determined by the ‘monetary base multiplier’, which varies with the size of the legal reserve requirement. In the standard textbook presentation, which assumes a cashless economy, the Eurosystem’s initial required reserve ratio of two percent implies a monetary base

multiplier of 50.¹⁷⁴ Finally, the theory of the monetary base multiplier is usually associated with what Polillo (2013: 33- 37) has accurately described as the “myth of banks as institutions of intermediation”. According to this myth, the nature of banking lies in the intermediation between savers and borrowers – banks accept the deposits of the former and re-distribute them, on the basis of their expertise as lenders, to the latter.

Brief, whereas in reality bank lending determines reserves, conventional wisdom holds that reserves determine bank lending.¹⁷⁵ Describing this standard view that has the process of money creation upside down, Charles Goodhart felt compelled to emphasise that his summary was “not a caricature”, pointing out that virtually all leading macroeconomics textbooks depicted the money creation process in a way that was “diametrically opposite” to what this process looked like in reality (Goodhart 2001: 15-16; Boermans/Moore 2008). To be sure, the issue is not that the notion of the monetary base multiplier is false but that, on the contrary, it is “tautologically correct at all times” (Goodhart 2001: 21). Under the simplifying assumption of zero cash-holdings, it is necessarily true that the ratio of inside money to outside money is the inverse of the minimum reserve ratio. However, this is *not* because the amount of reserves determines bank lending, but because bank lending determines how much banks borrow in reserves from the central bank.¹⁷⁶

¹⁷⁴. A representative textbook presentation of the money multiplier can be found in the first European edition of Olivier Blanchard's widely used macroeconomics textbook (Blanchard et al. 2010: 75-77).

¹⁷⁵. Note that the monetary base multiplier is “tautologically correct at all times” in the sense that – under the simplifying assumption of zero cash-holdings – the ratio of inside money to outside money is always the inverse of the minimum reserve ratio (Goodhart 2001: 21). It is worth to reiterate that this is not because the amount of reserves determines bank lending, but because bank lending determines banks' reserve borrowing from the central bank.

¹⁷⁶. It is this absence of bank lending from textbook accounts of the money creation process that makes them not only incomplete, but also misleading. Thus, the leading specialised textbook on money and banking sums up its discussion of the “money supply process” as follows (Mishkin 2009: 361): “The Federal Reserve ... influences the money supply by controlling [borrowed and non-borrowed reserves and the required reserve ratio]. Depositors influence the money supply through their decisions

Clearly, the persistence of this account – which is misleading at best – constitutes a puzzle. One explanation could be that textbooks prefer the conventional account for pedagogical reasons (even though the pedagogical value of explaining money creation backwards is unclear). Another explanation is that the authors of these textbooks – Ivy League professors such as Olivier Blanchard, Paul Krugman, or Gregory Mankiw – did not know better. Even if this was the case, however, many of their former colleagues – such as, for instance, Ben Bernanke or Janet Yellen – *did* know better, which begs the question why subsequent editions did not correct the error.¹⁷⁷ Moreover, the same question can be asked regarding the reproduction of the conventional view in the media.¹⁷⁸ Yet again, even if journalists did not know better – a scenario more likely than the chief economist of the IMF not knowing – the question remains why supposedly transparent central banks remain unconcerned about the media’s misrepresentation of the monetary system.¹⁷⁹

Thus, while the persistence of the monetary base multiplier view in both academic textbooks and in the media strongly suggest silent central bank approval, I shall take this argument one step further by showing that both the Bundesbank and the ECB

about their holdings of currency, while banks influence the money supply with their decisions about excess reserves. However, because depositors’ behavior influences bankers’ expectations about deposit outflows, which as we have seen affects banks’ decisions to hold excess reserves, depositors are also listed as a player determining excess reserves.”

¹⁷⁷ Tellingly, Bernanke’s own macroeconomics textbook has the following to say on the money supply (Abel et al. 2011: 241): “In modern monetary economies the money supply is determined by the central bank – in the United States, the Federal Reserve System.” The book also features the usual discussion of the money multiplier (Abel et al. 2011: 529-532).

¹⁷⁸ Given the ubiquity of misrepresentations in the media, there is no point in quoting individual examples. Sceptical readers are kindly asked to estimate how many media articles they have recently encountered that talk about central banks switching on their ‘printing press’ to ‘flood the economy with money’. For a compilation of alarmist inflation warnings in the German press, see Winkler (2014: 483).

¹⁷⁹ In the euro area, the platform to do so has long been in place, as the ECB organises two-day introductory seminars for journalists at least twice per year. In an interview, a senior manager at the Press and Information Division of the ECB described these seminars as quasi-compulsory for journalists reporting regularly on monetary policy issues (CB Interview 9).

have not only approved, but *actively nurtured* the monetarist fiction of exogenous money. The insistence on monetary targets and reference values, which was widely regarded as “outdated” (Blinder et al. 2001: 77), was less an expression of intellectual inertia than a deliberate performative act – a ‘noble lie’ in Plato’s sense, told to appease the desire of monetary outsiders to see the central bank in control of money.¹⁸⁰

As shown in chapter four, leading New Keynesian monetary economists were unified in opposition to the ECB’s monetary pillar, as they had – albeit for theoretical rather than for empirical reasons – embraced the endogeneity of money (Arestis/Sawyer 2006: 848). At the same time, however, the key messages of Political Monetarism remained “psychologically appealing” (Krippner 2011: 116) to monetary outsiders. As noted by Paul Volcker, “People don’t need an advanced course in economics to understand that inflation has something to do with too much money” (Volcker/Gyohten 1992: 167, quoted in Krippner 2011: 116). Moreover, the dramatic disinflationary success of the supposed monetary targeting approach of the Volcker Fed seemed to have demonstrated that the monetarists were right, and that inflation was indeed always and everywhere a monetary phenomenon.¹⁸¹ As the Chief Economist of one of the largest German trade union organisations put it in an interview, “certain market-liberal theories of money and prices are very popular in this country, capable of securing a majority, which state that an increase in the money supply will automatically lead to higher prices” (Interview 17). In the presence of such popular feelings,

¹⁸⁰ Interestingly, the performative role of monetarism is explicitly acknowledged by Thomas Sargent, one of the key protagonist of the New Classical revolution in macroeconomics. Writing about the end of the gold peg of the dollar in 1971, Sargent (2008: 16) notes that governments everywhere had no choice but to leave “the nominal anchor to be the monetary authorities’ knowledge of the quantity theory of money and their good intentions.”

¹⁸¹ Ironically, this impression was – as described in section 5.5.1 – actively fostered by the Fed’s deliberate misrepresentation of its intervention as operating through monetary targeting, rather than through interest rates.

the Bundesbank's post-Bretton Woods decision to adopt a monetary target – at a time when central bank control over monetary aggregates was, if anything, declining – constituted “a strong assertion that the Bank had regained control over its essential variable” (von Hagen 1999: 695). Did this decision in favour of monetary targeting reflect genuine conviction inside the Bundesbank, or did it merely respond to a public preference for seeing the central bank in charge of the money supply? Although not mutually exclusive, the Bank's increasing disregard for its monetary target (Bernanke/Mihov 1997; Clarida/Gertler 1997) suggests that the latter motive became increasingly prevalent over time.¹⁸²

This idea that the Bundesbank aimed at sustaining the public's monetarist convictions through a ‘noble lie’ – that is, by sustaining the fiction of exogenous money – also goes a long way towards explaining the otherwise puzzling German insistence on a ‘prominent role’ for money in the monetary policy strategy of the ECB.¹⁸³ Still arguing in favour of a pure monetary aggregate strategy, then-Bundesbank president Hans Tietmeyer justified this choice as a way for the ECB to “inherit the reputation of the Bundesbank” (quoted in Dornbusch 1997: 410). Although Issing later compromised by agreeing on combining a reference value for M3 growth with an inflation target, the rationale remained the same: “The German saving public (*die Sparer*) have been brought up to trust in the simple quantity theory, and they are not ready to believe in a

¹⁸² In his comment on Clarida and Gertler (1997), Dornbusch (1997: 407) summarises their review of the Bundesbank's monetary policy record as follows: “Amazingly, M3 plays absolutely no role in the story.”

¹⁸³ On the role of monetarist attitudes among the German population in strengthening the German negotiating position in the Maastricht negotiations, see Moravcsik (1998: ch. 6). For a study on “The German Stability as a Strategic Political Resource”, see Howarth and Rommerskirchen (2013).

new institution *and* new operating instructions all at once” (Dornbusch 1997: 412, original emphasis).¹⁸⁴

An example that shows that the ECB’s adherence to the monetarist fiction of a tight link between outside and inside money (and thus inflation) was not limited to the early years of monetary union is the ECB’s policy of ‘sterilising’ the outside money created as part of its Securities Markets Programme (SMP). Under the SMP, which was launched in May 2010, the ECB purchased sovereign bonds of euro area member states who suffered from particularly high interest rates in the secondary market (ECB 2010e). The total nominal value of the accumulated purchases amounted to €218 billion (ECB 2013d). Paying for the purchase of these assets by crediting the reserve accounts of its counterparties, the ECB expanded its balance sheet, thus increasing the outstanding supply of central bank money. In contrast to its usual refinancing operations, however, these purchases created non-borrowed reserves – central bank money that counterparties did not have to repay after a fixed period. At the time the programme was launched, the ECB’s assets had already almost doubled from €1.2 trillion in May 2007 to €2.1 trillion in May 2010, and was about to rise further to the peak value of €3.1 trillion in June 2012 (see Figure 7 above). Moreover, the latter increase was due to two Long-Term Refinancing Operations, whose 3-year maturities meant that although the reserves created in the process were borrowed, they were borrowed

¹⁸⁴ The implication from Dornbusch’s quote that the Bundesbank had been instrumental in this education of the German public finds historical support in Holtfrerich’s (2008: 33-37) analysis, according to which the origins of the relentless price-stability focus of the Bundesbank are to be found in a conscious “German strategy of monetary mercantilism”. Under this strategy, which goes back all the way to 1950, the Bundesbank’s restrictive monetary policy fostered wage restraint and thus – under the conditions of the fixed-exchange rate regime of the Bretton Woods era – international competitiveness and export surpluses. From this perspective, the Bundesbank’s continuous efforts to keep the memory of the Weimar hyperinflation alive appears as another layer of an ideological apparatus designed to “make even rigorous anti-inflationary measures palatable to the German population” (Holtfrerich 2008: 33-34).

for a very long time at very low interest rates. Yet although put in context in that way the extra €218 billion of non-borrowed reserves would seem like a minor item on its balance sheet, the ECB announced that it would conduct weekly fine-tuning operations – namely the auction of fixed-term deposits – “to re-absorb the liquidity injected through the Securities Markets Programme” (ECB 2010e). In a speech delivered shortly after the launch of the SMP, Jean-Claude Trichet made no effort to conceal the symbolic nature of the sterilisation:

Precisely in order to guarantee that the [monetary policy] stance remains unaffected, we sterilise our interventions, as I have explained. The Securities Markets Programme should not be confused with quantitative easing. In simple words: We are not printing money. This confirms and underpins our commitment to price stability.

(Trichet 2010)

The interpretation of the ECB’s sterilisation of SMP liquidity as a symbolic act designed to appease Political Monetarists (primarily in Germany) who feared the inflationary consequences of ‘newly printed money’ is further supported by the fact that the ECB held on to it in spite of repeated failures to attract enough deposits to meet its targets (Bloomberg 2011; Real Time Economics 2014b). These problems increased as excess reserves kept declining in 2014, which resulted in the suspension of the sterilising fine-tuning operations in June 2014 (ECB 2014b).

To sum up, I have argued in this section that the persistence in both economic textbooks and public discourse of the monetarist fictions of exogenous money and the monetary base multiplier are not only facilitated by monetary authorities’ silent approval, but that the Bundesbank and the EBC have actively nurtured that fiction through performances that naturalise money as a quantity under the direct control of the central bank. Crucially, this performance was addressed not to monetary insiders –

who, in the case of the ECB, actually strongly criticised it – but to monetary outsiders. While this performance resembles that of the Volcker Fed in that it carries an important element of “play-acting” (Goodhart 2001: 17), the message is a very different one. For whereas the Fed’s performance concealed the true extent of its control over monetary conditions (i.e., interest rates), the Bundesbank’s and the ECB’s performances exaggerated the extent of their control over monetary aggregates.

5.6.3 We don’t control money! Why the Bank of England started worrying and stopped loving monetary ignorance

Having presented circumstantial evidence that both the Bundesbank and the ECB have indeed acted as ‘cynical performers’ with regard to their commitment to and control over monetary aggregates, there is one scenario that would provide a test case for this hypothesis. In this scenario, the monetary situation would change in such a way that the fiction of exogenous money ceases to have beneficial implications for monetary governability, and the central bank would react to this change by attempting to disabuse the public of its monetary misperceptions. As it happens, recent monetary developments have indeed reduced the desirability, from a central bank perspective, of the public believing in a direct link between the supply of outside money and inflation. This is because central banks everywhere have greatly increased their balance sheets – and thus the supply of outside money – through the conduct of large-scale asset purchase programmes (‘quantitative easing’) or, in the case of the euro area, full-allotment refinancing operations (Friedman 2014: 9). Under these new conditions, a public under the impression that this increase in the ‘monetary base’ will multiply into a 100-fold – in the case of the Eurosystem’s minimum reserve requirement of 1% – increase of broad money poses a problem for any central bank. This section uses the

most straightforward empirical example available – the Bank of England’s spectacular recent attempt to convince monetary outsiders of the endogeneity of money. The case of the TARGET2 controversy in Germany, which serves to empirically illustrate the argument for the euro area, requires a considerably longer exposition and is relegated to the following chapter.

The first 2014 edition of the Bank of England’s Quarterly Bulletin contained two articles that were highly unusual in that they clearly addressed a lay audience (Bank of England 2014a, b). The articles offer an explanation of the creation of money and the nature of the monetary and financial system that is much less simplistic – and therefore more realistic – than any previous educational effort of the Bank of England or, for that matter, of any other central bank.¹⁸⁵ In the context of the present argument, three statements are of particular interest. The first thing the introductory article highlights is that all money is debt:¹⁸⁶

There are three main types of money: currency, bank deposits and central bank reserves. Each represents an IOU from one sector of the economy to another.

(Bank of England 2014b: 4)

Secondly, the authors reject the ‘banks as intermediaries’ view, highlighting the power of banks to create money themselves:

[R]ather than banks lending out deposits that are placed with them, the act of lending creates deposits — the reverse of the sequence typically described in textbooks.

(Bank of England 2014b: 15)

¹⁸⁵. In the case of the ECB, members of the Governing Council have made repeated efforts to convince the audiences of their public speeches that “an expanded central bank liquidity buffer is non-inflationary under [current] conditions” (Praet 2012).

¹⁸⁶. The two articles were supplemented by two video-interviews with the articles’ authors. As if to lessen the impact of the key message that money is based on private debt contracts, the videos were shot in the vault room of the Bank of England, against the backdrop of a very large number of neatly stacked gold ingots. The videos are available via the Bank of England’s Youtube channel.

Thirdly, and most significantly, the monetary base multiplier and the monetarist notion of central bank control of the money supply are rejected:

In normal times, the central bank does not fix the amount of money in circulation, nor is central bank money ‘multiplied up’ into more loans and deposits. ... [R]eserves are, in normal times, supplied ‘on demand’ by the Bank of England to commercial banks in exchange for other assets on their balance sheets. In no way does the aggregate quantity of reserves directly constrain the amount of bank lending or deposit creation.

(Bank of England 2014b: 14, 16)

Given that central banks did not previously see the need to intervene when these issues were misrepresented in economic textbooks or media reports, this unprecedented act of myth-busting on the part of the monetary authority has come as a surprise. It would be hard to explain, was it not for the excess reserves created by the Bank’s quantitative easing, which have inverted the implications of the fiction of exogenous money for public monetary trust. Under these new conditions, the notion that these excess reserves would lead to a corresponding (i.e., manifold) increase in the money supply could spark inflationary fears and undermine trust in money. The focus on the nature and the effects of quantitative easing in the second half of the second article leave little doubt that countering such fears is the primary goal of the Bank’s pedagogical effort:

As a by-product of QE, new central bank reserves are created. But these are not an important part of the transmission mechanism. This article explains how, just as in normal times, these reserves cannot be multiplied into more loans and deposits ... This is because ... banks cannot directly lend out reserves. Reserves are an IOU from the central bank to commercial banks. Those banks can use them to make payments to each other, but they cannot ‘lend’ them on to consumers in the economy, who do not hold reserves accounts.

(Bank of England 2014b: 14, 25)

Thus, rather than monetary enlightenment for its own sake, the ultimate goal of the Bank of England’s educational initiative is to disabuse the public of monetary misper-

ceptions that had previously fostered the Bank's legitimacy and monetary governability but that, under changed circumstance, have become a threat to both.

5.7 Conclusion: The myth of the end of the mystique of central banking

The mystique [of central banking] thrives on a pervasive impression that Central Banking is an esoteric art. Access to this art and its proper execution is confined to the initiated elite. The esoteric nature of the art is moreover revealed by an inherent impossibility to articulate its insights in explicit and intelligible words and sentences. Communication with the uninitiated breaks down. The proper attitude to be cultivated by the latter is trust and confidence in the initiated group's comprehension of the esoteric knowledge.

(Brunner 1981, quoted in Goodfriend 1986: 64)

When it comes to central banking neither the central bankers' actions nor the public's expectations can afford just to rely on faith devoid of proof or evidence. Moreover, I do not regard it as helpful to characterise central banking as some sort of mystical art that aims to instil awe and worship. ... [I]n the end 'faith' in institutions such as central banks and 'faith' in the individuals in charge of these institutions often cannot be easily distinguished. But 'faith' with respect to which attributes of individual decision-makers? What matters most, surely, in the case of central bankers is their competence ... What counts is the technical competence and professional skills of the central banker.

(Issing 2002: 18, 29)

This chapter has argued that taking monetary ignorance seriously has far-reaching implications for what is arguably the hallmark of monetary governability with regard to the non-expert public – the latter's trust in money. Central banks are widely credited for providing the institutional trust that is required in a monetary system in which what circulates as money are private debts – a task that in the past was accomplished by the precious metals of which coins were minted and that has become more challenging since money has become pure fiat money. While concurring with this general view, this chapter has argued that contrary to the standard narrative, central bank *transparency* has *not* been the basis of monetary trust in the euro area, where the ECB cannot be said to have re-established the broken-down “communication with the uninitiated”, to use a felicitous phrase from Karl Brunner's ironical description of the

mystique of central banking. The “trust and confidence in the initiated group’s comprehension of the esoteric knowledge” mocked by Brunner is *still* the “proper attitude” for monetary outsiders. This argument stands in stark contrast to the standard narrative, of which Otmar Issing has been a key proponent. Yet his dismissal of the ‘mystique of central banking’ has the self-defeating logic of a Freudian slip: Having rejected “mystical art” and “faith” as suitable foundations for the relationship between the public and the central bank, Issing suggests that this relationship should be based on respect for central bankers’ “technical competence and professional skills”. Thus Issing, too, cannot help but acknowledge the divide between “the initiated” and the public.

Writing in 1914, Mitchell Innes (1914: 154) proclaimed that when it comes to monetary matters “things are not what they seem”. The analysis in this chapter suggests that in 2014 they still are not. Then as now, “[a] sound currency is a currency that no one notices” (Orléan 2014: 160). Rather than on positive knowledge of transparent monetary institutions, the public’s monetary trust is based on the “collective blocking out” (Greider 1987: 241) of the social underpinnings of the financial claims that circulate as money. Previously achieved by linking these claims to precious metal, this naturalisation of money has taken an ideological turn during more recent times, whereby ‘popularised’ monetary theories – above all ‘Political Monetarism’ – have taken over the naturalising function. The attachment of the Bundesbank and the ECB to Political Monetarism and their seemingly outdated insistence on targeting or monitoring monetary aggregates have been an essential element of the ideological apparatus that performs the naturalisation of money as a quantity under the direct control of the central bank. However, while desirable from a governability perspective

during times of financial stability and low inflation, the fiction of exogenous money has recently turned into a liability for central banks at times when unconventional policies such as quantitative easing or full allotment refinancing operations cause their balance sheets – and thus the ‘monetary base’ – to expand. As Martin Wolf (2014) has sharply observed, under these novel conditions “ignorance is not bliss” anymore, but in fact “has made it more difficult for central banks to act effectively.”¹⁸⁷ While the Bank of England’s recent public advocacy of endogenous money theory provides the starkest example for this shift in attitudes, the following chapter will discuss the slightly more complex case of the controversy over the Bundesbank’s TARGET2 claims against the Eurosystem.

¹⁸⁷ For an elaboration of this argument for the German case, see Winkler (2014).

6. Fragile governability: The three apparatuses during the financial crisis

Most studies of macroeconomic policy aim to explain why certain policies are chosen rather than others. The present work, in contrast, takes a step back to make macroeconomic governability itself the object of study. Specifically, it asks how the ECB renders the economy governable by creating the conditions under which monetary policy can be effective. In order to do so, chapter two developed a multidimensional conception of central bank agency by disaggregating the notion of ‘the public’ according to economic actors’ financial literacy on the one hand, and their position in the transmission mechanism of monetary policy on the other hand. This disaggregation yields a threefold distinction – the money market, monetary insiders more generally, and monetary outsiders. Each of these groups poses a different challenge in terms of monetary governability. In the case of the money market, governability requires that participants in the interbank market set the price of central bank money in such a way that the ECB achieves its operational target for the short-term interbank interest rate, which constitutes the starting point of the transmission mechanism of monetary policy. This is achieved through the financial apparatus of monetary policy implementation, which regulates both the supply and the demand for central bank money. In the case of monetary insiders, governability requires that financial market and real economy actors form expectations in such a way that the ECB can guide their expectations in accordance with its goals for aggregate economic activity. This is achieved through a communicative apparatus that simplifies and conditions market actors’ expectation formation process. Finally, in the case of monetary outsiders, governability requires that the users of money put their trust in a monetary system that necessarily remains obscure

to them. This is achieved through an ideological apparatus that naturalises money as a quantity under the direct control of the ECB.

Thus, central bank agency can be conceptualised in terms of three performative modes of monetary governance that address the three challenges to monetary governability. The preceding chapters provided in-depth studies of the emergence and the evolution of these modes of monetary governance since the beginning of the preparatory stage II of EMU in 1994. The analysis in these chapters showed that the ECB was largely successful in establishing governability during the early years of monetary union – if only in terms of its own criteria at the time. This caveat is crucially important, since in retrospect the ECB’s narrow pre-crisis conception of governability – which excluded, above all, financial stability – is widely considered to have contributed to the build-up of the financial and economic crisis of 2008-2014. Regardless of the extent to which the ECB is indeed to blame, the crisis has exposed the fragility of monetary governability in each of its three dimensions, as well as the possibility of developments in one dimension having negative implications on governability in one of the other dimensions.

In order to shed some light on these questions, the present chapter focuses on one key episode for each dimension of monetary governability, showing the ECB’s attempts to modify, extend, or ‘repair’ the financial, communicative, and ideological apparatuses examined in the preceding chapters. Thus, beyond the crisis-induced changes already analysed in chapter three, the ECB’s major modification of the financial apparatus has been its ongoing campaign to create the financial market structures that would make quantitative easing possible in the future (section 6.1). Secondly, in order to regain control over the expectations of monetary insiders, the ECB elaborated

its communicative apparatus by embracing ‘forward guidance’ (section 6.2). Finally, the episode that most clearly exposed the fragility of the performative naturalisation of money, and thus of public monetary trust, was the public controversy in Germany about the electronic payments system of the euro area, TARGET2 (section 6.3).¹⁸⁸ The final section concludes by drawing attention to the interaction between developments in the three dimensions of monetary governability.

6.1 Policy implementation after the crisis: Performing a governable ABS market

The literature on the gold standard ... analyses it simply as a monetary institution. This binary has meant that the financial considerations tied to monetary governance are too often excluded with problematic results. Financial practices have important monetary effects and were thus frequently the target of monetary governance. ... any separation of monetary and financial governance was largely arbitrary before the nineteenth century as policies geared toward money often targeted financial practices in the process.

(Knafo 2013: 15)

Since the early 1990s, most discussions, whether political or academic, of monetary policy have been concerned with the ends towards which the central bank’s instrument, the short-term interest rate, should be directed. What was all but forgotten under the benign conditions of the Great Moderation, however, was that this interest rate was not actually the central bank’s *instrument*, but its *operational target*, which in order for the central bank to control it required that certain conditions of monetary governability were met.¹⁸⁹ As shown in chapter three, one of these conditions is the ready availability of an adequate supply of high-quality securities that banks can pledge as collateral in the refinancing operations of the Eurosystem. After 2008, this condition

¹⁸⁸ Note that the relatively greater length of section 6.3 is not due to its greater importance, but merely due to the necessity to explain the technicalities of TARGET2 in sufficient detail.

¹⁸⁹ Central bank control over the policy rate has always been more precarious than is generally assumed. According to Knafo (2013: 7), who in turn cites Sayers (1976), the Bank of England “struggled in the late nineteenth century to make its discount rate effective and experimented to gain a form of control over the market”.

was threatened by the combination of higher liquidity demand from the banking system and a ‘collateral squeeze’ caused by the collapse first of private asset-backed securities (ABS) and later of sovereign bonds. In light of this dilemma – and on top of the softening of its collateral eligibility criteria and its switch to a fixed-rate full-allotment tender procedure, both analysed in detail in chapter three – the ECB launched an initiative to revive and ‘improve’ the European ABS market in 2010. While seemingly unremarkable – and largely unremarked by the public – the ECB’s attempt to re-establish a purpose-built ABS market in the euro area represents a crucial extension to the financial apparatus examined in chapter three. For the goal of the initiative is not only to facilitate and support bank lending in credit-strapped regions and sectors of the euro area economy, but also *to prepare the ground for future central bank interventions* by creating a market for high-quality securities that is deep and liquid enough to allow for large-scale asset purchase programmes, or quantitative easing. More than any other case, the ABS initiative illustrates how the Eurosystem actively bolsters its own ability to govern by fostering governable money market structures.

6.1.1 Performing a new and ‘improved’ market for asset-backed securities

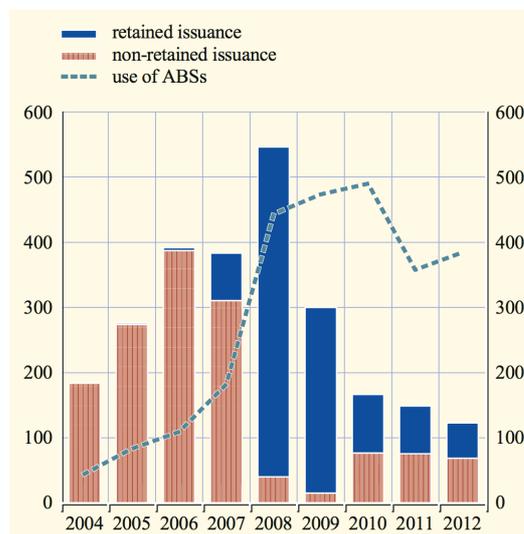
An ABS is a security whose value and income payments are derived from and collateralized by a specified pool of underlying assets. These assets can be residential or commercial mortgages, loans to small and medium-sized enterprises (SME), or consumer loans such as auto loans or credit card debt. While acknowledging that a bubble in the U.S. market for residential mortgage-backed securities was at the heart of the financial crisis of 2007-08, the ECB has argued with increasing urgency “that well-regulated, high-quality and transparent securitised products can play an important role

in capital markets” (ECB 2013c: 48). More specifically, in a joint discussion paper titled “The case for a better functioning securitisation market in the European Union”, the Bank of England and the ECB have recently spelled out four economic arguments in favour of securitisation (ECB and Bank of England 2014: 7-9). First, securitised loans provide an investment opportunity especially for insurance companies and pension funds that seek low-risk long-term investment opportunities to match their long-term liabilities. Second, the possibility of securitising and selling loans to a broad range of investors provides an important funding source for both banks and non-banks. Third, securitisation allows banks to transfer risks associated with the extension of loans to households and businesses, thus alleviating the pressure on bank lending at a time of insufficient credit supply to the real economy. Fourth, securitisation turns illiquid loans into liquid (i.e., tradable) assets, which increases the overall supply of high-quality collateral in the financial system.

These positive implications of an ideal securitisation market notwithstanding, this market all but collapsed after 2008. In the case of the euro area ABS market, the collapse manifested itself in two ways (see Figure 8). First, whereas prior to the crisis issuers of ABS were able to sell off almost the entirety of each issuance, this share dropped significantly in 2008, leaving issuers with €500 billion worth of ABS on their own balance sheets in that year alone. Secondly, and as a consequence of the first point, banks massively increased their use of these retained ABS as collateral in the refinancing operations of the Eurosystem, thus raising the total value of ABS used as collateral by a factor of five between 2006 and 2009, and increasing the share of ABS in the total collateral pool of the Eurosystem from 16% in 2007 to 28% in 2008 (ECB

2013f: 81). Since then, total ABS issuance in the euro area has continued to decline to below-2004 levels.

Figure 8: Issuance and use in Eurosystem refinancing operations of European ABS (including mortgage-backed securities), EUR billions



Source: Chart taken from the ECB Monthly Bulletin (ECB 2013f: 78).

It was against this background that the ECB launched an initiative to revive the ABS market in the euro area. The central element of the initiative has been the phasing in, from 2010, of loan-level information requirements for ABS. Up to that point, European ABS had not routinely included data about the underlying loans, which limited the information available to potential investors, whose risk-assessments had to be undertaken on the basis of aggregate models. The same was true for the Eurosystem, which, via its open market operations, was (and is) “the main recipient of ABSs” (ECB 2013f: 75). The process began with a public consultation of the Eurosystem, which within two months sparked 53 responses expressing “very strong support” from “investors, market data vendors, credit rating agencies, financial service providers, audit firms, stock exchanges, law firms, public authorities and central securities depositories” (ECB 2010c: 1). Regarding the “foreseeable benefits and costs of loan-by-

loan data”, the main thrust of the responses was that such data would facilitate the task of risk-assessment for all market participants, thus “restoring investor confidence in the securitisation market”, with beneficial effects on “the general level of liquidity in the market” (ECB 2010c: 1).

Following the public consultation, the preparatory work was organised in a technical working group that was chaired by the Eurosystem and divided into six sub-groups for each sector of the ABS market, which in turn consisted of 10 to 15 senior representatives from European banks and other financial institutions.¹⁹⁰ The groups drafted the reporting templates for their respective ABS sectors, which require issuers to fill in information on the underlying debt contracts as well as on any collateral.¹⁹¹ The obligation to report on the data asked for in these templates was phased in, depending on the type of ABS, between January 2013 and April 2014.¹⁹² Although it chaired the working group as a whole, the Eurosystem saw its own role in the process merely as that of a “catalyst” (ECB 2011b). Indeed, the key institution within the new market architecture is not the ECB, but a privately owned central ‘Data Warehouse’, whose function is to “aid the simplification of data processes in the industry by ensuring investor access to comprehensive and standardised information across the European ABS market” (ECB 2011b). The ‘European DataWarehouse GmbH’ was established in 2012 as a private company in Frankfurt, owned by a consortium of

¹⁹⁰ The six sectors (and therefore working groups) were: Residential mortgage-backed securities (RMBSs – the largest asset class in the European ABS market), commercial mortgage-backed securities (CMBSs), small and medium-sized enterprise (SME) securitisation transactions, auto loan ABS, consumer finance ABS, and leasing ABS.

¹⁹¹ These templates are publicly available on the ECB website.

¹⁹² Moreover, the European Securities and Markets Authority (ESMA) has recently announced that the ECB reporting templates for loan-level information were its preferred option to implement the reporting standards required by the CRA3 Regulation no. 462/2013 issued by the European Parliament and the Council in May 2013 (ESMA 2014: 180-181).

shareholders consisting of 16 financial sector firms. As initially intended, the Eurosystem became “a client of the Data Warehouse on a non-exclusive basis”, buying access to its data in the same way as other ABS market participants (ECB 2011b).

The case of the loan-level information initiative serves as a powerful illustration of the importance of taking the ‘bank’-aspect of central bank agency seriously. For the ECB’s *capacity* to implement a significant overhaul of ABS market practices owes more to its own participation in that market as a *bank* than to its legislative powers as a *central* bureaucratic authority invested with legislative powers. For this overhaul was not imposed by law, but thanks to the Eurosystem’s *market power* as the largest counterparty in the European ABS market.¹⁹³ By declaring that “ABS loan-level information will become a collateral eligibility requirement for the instrument concerned”, the Eurosystem left credit institutions little choice but to get on board of its loan-level information initiative (ECB 2011b).

At the same time, however, some of the conditions needed for a revival of the ABS market remain beyond the reach of the ECB. This is true in particular for those conditions relating to the regulatory treatment of ABS. Thus, in June 2014, Mario Draghi issued an unusual appeal to regulatory agencies, calling for “a re-visitation of the regulation that had been introduced in the past few years about ABS to eliminate some of the undue discriminations towards this specific product when this product is simple, real and transparent” (Draghi 2014a). This call was re-iterated in a follow-up speech by Yves Mersch (2014) who explicitly demanded that both public regulators and private rating agencies reconsider their treatment of ABS, including “excessive securiti-

¹⁹³ In 2010, ABS accounted for 24% of the assets pledged in transactions with the Eurosystem, the largest share of any asset class (ECB 2011d: 6).

sation capital charges, transparency and risk retention improvements, higher credit enhancement requirements, as well as the current liquidity rule proposals, which I see as overly constraining”. Thus, although the ECB has a strong influence on market outcomes by virtue of its own weight in the market, regulatory impediments require coordination with other regulatory bodies, most notably with the European Securities and Markets Authority.

6.1.2 Expanding the reach of the financial apparatus: The ABS market as a precondition for a potential future quantitative easing programme

The ECB’s attempt to build an ABS market rests on a theoretically informed conception of the contribution that a well-designed securitisation market can make to the financial system. As such, it is a textbook case of the type of ‘market engineering’ that is at the heart of Callon’s theory of the performativity of economics, much in the tradition of the performance of efficient markets elsewhere – the table strawberry market in the French Sologne region (Garcia 1986) or, more closely related, the Chicago Board Options Exchange (MacKenzie/Millo 2003). However, as explained in chapter two, the present study combines the theoretical perspectives of performativity *and* governmentality studies, meaning that it focuses on the performance of economic apparatuses for the purpose of establishing and maintaining monetary governability. The remainder of this section therefore uses the case of the ABS initiative to show how the ECB’s ability to govern depends on the presence of market structures that are amenable to central bank interventions, and how the ECB itself performs these structures.

On the one hand, it was one of the ABS initiative's stated goals to strengthen "the ECB risk, collateral and statistic management" capabilities (ECB 2011c: 6). On the other hand, its overarching goal was to provide a remedy for the increasing "financial fragmentation" that "hindered" the effective transmission of monetary policy, the ABS market being one of the means to "repair" the broken transmission mechanism (Draghi 2012; ECB 2013b). The term 'fragmentation' thereby referred to weak lending to the real economy, especially to SMEs in the countries of the euro area periphery, where credit remained scarce and interest rates high in comparison to the core countries (Al-Eyd/Berkmen 2013). These cross-border interest rate differentials meant that the ECB's monetary policy stance failed to have the intended uniform effects across the euro area – in other words, a loss of monetary governability had occurred. Due to the capacity of securitisation to support lending in periphery countries via the 'originate and distribute' model, the dysfunctionality of the ABS market was identified as one of the chief underlying factors of financial fragmentation in the euro area, as explained by ECB Executive Board member Yves Mersch:

ABS provide a channel for the funds of liquidity-rich bank or non-bank investors to reach the real economy, in particular its more opaque segments. By stimulating further credit creation, which in turn feeds into consumer prices, this supports the transmission of monetary policy and the fulfilment of our mandate.

(Mersch 2014)

Yet given the "post-crisis stigma" that both market participants and regulators associate with securitisation (ECB and Bank of England 2014: 3, 20), the ECB has taken pains to emphasise that the ABS market it is aiming for has little in common with the pre-crisis situation:

[W]e are focusing our efforts on a market which would trade products that are, as I said on other occasions, simple, transparent and real. Simple, transparent and real. Simple means readable. Transparent means that you can actually go through and

price them well. And real means that they are not going to be a sausage full of derivatives [...]

(Draghi 2014b)

Thus, in its public comments on the ABS initiative, the ECB made it a point that its goal was not simply to revive a dormant market, but to create a new, ‘improved’ version of that market, which would allow the euro area economy to reap the economic benefits of securitisation without incurring the risk of increased financial instability.

The true scope and ambition of the ABS initiative, however, came to light only in mid-2014, when the ECB announced that it was in the process of developing its own version of quantitative easing. As noted previously, the threefold expansion of the size of the Eurosystem’s balance sheet between 2007 and 2012 (see Figure 7 above) remained significantly below the four- and five-fold increases of the respective balance sheets of the Fed and the Bank of England (Friedman 2014: 7). Unlike in the US or the UK, the expansion of the central bank’s balance sheet in the euro area was the result primarily of increased lending operations rather than of outright asset purchases – in other words, the ECB did not engage in quantitative easing. Crucially, this was not because the ECB objected to the idea of quantitative easing, but because two factors had ruled out large-scale asset purchases in the euro area. On the one hand, the monetary financing prohibition of Article 123 TFEU makes the purchase of large quantities of sovereign bonds, even in the secondary market, problematic in legal terms. While the Securities Markets Programme (SMP) was strictly limited¹⁹⁴, the Outright Monetary Transactions (OMT) programme will – if it is ever activated – be

¹⁹⁴ The total nominal value of the accumulated purchases amounted to €218 billion (ECB 2013d). Moreover, as described in section 5.6.2 above, the liquidity injected into the banking system was simultaneously ‘sterilised’ through liquidity-absorbing fine-tuning operations.

restricted to individual countries and would involve strict conditionality.¹⁹⁵ On the other hand, the only private asset class that would, in principle, have been large and standardised enough to allow for large-scale asset purchases by the Eurosystem – the ABS market – had collapsed in 2008. The reduced size of this market would therefore have allowed for only a small intervention, which would have had a small effect (CB Interview 8). In short, legal restrictions and endogenous economic developments had led to a situation in which “[d]ue to missing asset markets, the monetary transmission mechanism [was] unable to reach certain sectors (or regions) in the economy” (Brunnermeier/Sannikov 2104: 17).

Initially, the ABS loan-level information initiative was not officially linked to any sort of asset purchase programme – neither at the time of the first public consultation in December 2009, nor during the implementation of the information requirement over the following years. While it remains uncertain precisely when it was established internally, the connection between the ABS initiative and a potential future asset purchase programme can be assumed to have preceded the official announcement of such a connection in June 2014.¹⁹⁶ For it was then that Mario Draghi announced the Governing Council’s decision “to intensify preparatory work related to outright purchases in the ABS market to enhance the functioning of the monetary policy transmission mechanism” (Draghi 2014a). Two months later he repeated the same formulation in the present perfect – “we have intensified preparatory work” – suggesting that the

¹⁹⁵ In its February 2014 judgement on a series of constitutional complaints, the German Constitutional Court ruled OMT illegal under existing European law, but referred the case to the European Court of Justice for further consideration (Bundesverfassungsgericht 2014). At the time of writing (August 2014), the ECJ has not yet issued a ruling.

¹⁹⁶ In a September 2011 speech, Adam Posen, then an external member of the Monetary Policy Committee of the Bank of England, proposed “actively purchasing and promoting a market in securitised SME loans”. In his own words, he was “the first sitting central bank policy maker” to make such a proposal (Posen 2014).

ECB's preparations had progressed (Draghi 2014b). Asked during the Q&A of the August press conference whether these preparatory works would actually lead to ABS purchases, Draghi remained deliberately vague: "If we were to work on things that don't happen, we wouldn't spend our time well. So the work we are doing is with the expectation that we will take action in this field."

To summarise, the case of the ABS initiative demonstrates the fragility and precariousness of monetary governability by unveiling the extent to which the ECB's ability to govern depends on the presence of governable market structures. Since within the financial apparatus of monetary policy implementation the central bank acts primarily through *quid-pro-quo* transactions with commercial banks, its ability "to reach certain sectors (or regions) in the economy" depends on the presence, in those sectors or regions, of suitably deep and liquid financial asset markets (Brunnermeier/Sannikov 2014: 17). The ABS initiative stands exemplary for what I call performative monetary governance, for when – presumably in the near future – the ECB embarks on an ABS-focused asset purchase programme, it will intervene in a market that it has, to a considerable extent, engineered itself.

6.2 Expectations during the crisis: Forward guidance

[I]t is absurd to think of a purely 'objective' prediction. Anybody who makes a prediction has in fact a 'programme' for whose victory he is working, and his prediction is precisely an element contributing to that victory.

(Gramsci 1971: 171)

Among the three financial crisis-related developments discussed in this chapter, the ECB's decision to adopt a policy of forward guidance on the future path of its main policy rates is the one that most clearly forms part of a global trend in central bank practice. Thus, in the wake of the financial crisis, the Fed became the first leading

central bank to embrace an *open-ended* form of forward guidance in December 2008, announcing that “weak economic conditions are likely to warrant exceptionally low levels of the federal funds rate for some time” (FOMC 2008). In April 2011, the Federal Open Market Committee embraced a more specific, *calendar-based* form of forward guidance, replacing “for some time” by the phrase “at least through mid-2013” (FOMC 2011). In September 2012, on top of extending calendar-based guidance to “mid-2015”, the FOMC (2012b) promised to continue its QE programme “[i]f the outlook for the labor market does not improve substantially”, thus adding a *qualitative threshold* to its forward guidance. In December 2012, the FOMC (2012a) went one step further by committing itself to a *quantitative threshold*, declaring that the Fed funds rate would remain at current levels “at least as long as the unemployment rate remains above 6.5 percent”, given that “inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee’s 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored”. Finally, in December 2013, the FOMC (2013) gave its forward guidance a further dovish twist by announcing to maintain current interest rate levels “well past the time that the unemployment rate declines below 6-1/2 percent, especially if projected inflation continues to run below the Committee’s 2 percent longer-run goal”.

Besides the Fed, both the Bank of Japan (February 2012) and the Bank of England (August 2013) adopted the ‘strongest’ version of forward guidance by giving specific quantitative thresholds – the inflation rate rising to 1% (subsequently 2%) in the case of the BoJ, the unemployment rate falling to 7% in the case of the BoE (Filardo/Hofmann 2014: 52-53).

The ECB's version of forward guidance was announced by Mario Draghi following the Governing Council meeting of 4 June 2013:

The Governing Council expects the key ECB interest rates to remain *at present or lower levels for an extended period of time*. This expectation is based on the overall subdued outlook for inflation extending into the medium term, given the broad-based weakness in the real economy and subdued monetary dynamics.

(Draghi 2013, emphasis added)

Compared to the quantitative threshold-based forward guidance given by the other central banks, the ECB's open-ended version appears rather cautious. While following its peers in making its forward guidance conditional – most notably on the medium-term inflation outlook – the ECB does not commit to maintaining current interest rate levels until a specific date or macroeconomic outcome is reached. In its Monthly Bulletin, the ECB described its own approach as “[q]ualitative forward guidance conditional on a narrative” (ECB 2014d: 68). This section discusses the ECB's forward guidance as an extension to the communicative apparatus examined in chapter four, showing how, by taking the ‘domestication of the future’ one step further, forward guidance has brought the tensions inhabiting this apparatus to the fore.

6.2.1 Revolution or evolution?

In a speech titled “Revolution and Evolution in Central Bank Communication”, then-Vice Chair of the Fed's Board of Governors, Janet Yellen, said that the “revolution in central bank communication” that had occurred that year “would have been unthinkable in 1992 and greatly surprising in 2002, but they have, in my view, become a centerpiece of appropriate monetary policy” (Yellen 2012: 1-2). While this assessment is certainly correct, the more recent trend among smaller central banks to publish unconditional forecasts of the future path of the policy rate, discussed in section 4.6.2

above, suggests that forward guidance represents an ‘evolution’ rather than a ‘revolution’ in central bank communication.¹⁹⁷ The perception that ‘forward guidance’ represents an innovation in the communication about the communication of monetary policy, rather than an innovation at the level of policy itself, found its most evocative expression in a research note by the chief economist of Citigroup, Willem Buiter:

Forward guidance, in the sense of trying to steer market expectations of future central bank instruments towards the levels or values the central bank deems appropriate and intends, given the current information available to the central bank, to implement, is as old as central banking. The sudden focus on forward guidance, especially since the Fed adopted it in late 2012 reminds one of Moliere’s *Bourgeois Gentleman* discovering that he has been speaking prose for more than forty years without knowing it.

(Buiter 2013: 4)

Buiter’s view was shared by several of my interview partners. Thus, a former chief economist and now senior consultant of a German bank told me that he saw forward guidance as merely the last step in an evolutionary process of an “ever stronger steering of expectations” (Interview 26). The ECB watcher at the same bank expressed a similar view (Interview 24): “After all, what was the purpose of the ECB press conferences if not to give the markets – and the public – some ideas as to where the journey was going?”

6.2.2 Making the long-term interest rate a policy variable

The question of ‘evolution’ or ‘revolution’ notwithstanding, forward guidance has been the apex of a trend in central banking to extend the reach of the communicative apparatus of monetary policy ever further into the future. In economic terms, the central consequence of this trend is that the long-term interest rate has, for all practical

¹⁹⁷ The countries whose central banks routinely give forward guidance by publishing unconditional forecasts of the future path of the policy rate include those of the Czech Republic, Iceland, Israel, New Zealand, Norway and Sweden (Filardo/Hofmann 2014: 38).

purposes, become a policy variable. As recently as 2008, the ECB (2008d: 79) declared in its Monthly Bulletin that it “recognises that developments in longer-term money market interest rates reflect market forces and that this market segment is beyond the ECB’s direct control”. This statement echoes the Bundesbank’s fear, quoted in chapter four, that when interest rates were fixed by a central authority, “they would cease to have their important allocational function in a market economy by virtue of being relative indicators of scarcity” (Issing 1992: 293). This idea that by leaving the future path of short-term interest rates “in the dark” the monetary authority leaves the determination of longer-term rates to the market – thus minimising its own (distorting) influence – has long been a key element of the governability paradigm of inflation targeting. As recently noted by an economist at the Bank of International Settlements, “it would be reassuring to imagine that the real long-term interest rate is determined by the market” (Turner 2014: 19).

The Monthly Bulletin article just quoted continued by emphasising that the autonomy of long-term rates was “particularly evident during specific periods of financial market stress, when changes in risk premia and mistrust among banks and investors affect these longer-term rates and may thus interfere with the transmission of the monetary policy stance” (ECB 2008d: 79). Yet it was precisely in order to encourage “portfolio shifts into longer maturity assets and a compression of long-term yields” after “euro area money market interest rates had been rising and had become more volatile” that the ECB decided, in 2013, to embrace forward guidance (ECB 2014d: 67,69). Market actors are well aware of the change in the ECB’s view of the long-term interest rate. A German pension fund manager put this as follows in an interview, emphasising the immediate implications for his own and other pension funds:

In the past, central banks targeted only the short end of the yield curve. Today, they also target the far end, that is, long-term interest rates. Pension funds, who invest primarily at the far end of the yield curve, have not previously been used to being directly at the mercy of central banks.

(Interview 19)

Thus, under forward guidance, long-term interest rates, which had previously been regarded as a barometer for monetary insiders' expectations of the future, have become a lever for the ECB to influence that future. Cast in more technical terms, the information content of the yield curve has changed. Today, instead of showing monetary insiders making up their mind about the longer-term future, the yield curve measures the degree of success with which the central bank imposes its will on the market – a development that has prompted two of my interview partners to conclude that the financial system was moving towards monetary central planning. Thus, in the view of the pension fund manager just quoted, “[t]he bond market is not a free market anymore, but a centrally controlled, quasi-monopolistic market” (Interview 19). Similarly, according to the former Chief Economist quoted above, “we have effectively moved towards a centrally planned financial system” (Interview 26). I shall return to this question of ‘central bank planning’ in the conclusion of this thesis.

6.2.3 How forward guidance has weakened the communicative apparatus by undermining ‘pretence of knowledge’

The unease associated with central bank control over long-term interest rates is based on the Hayekian notion that ‘the market knows better’, and thus relates directly to the problem of central bank knowledge discussed at the end of chapter four. Forward guidance brings this fundamental tension at the heart of the communicative apparatus

of monetary policy to a head. Again, however, central bankers have long been aware of the underlying issue, as illustrated by the following quote by Paul Volcker:

The heart of the problem, as I see it, is that markets constantly are trying to anticipate what *might* happen in the future. They would like the Federal Reserve to in effect ‘tell’ them. But, by the nature of things, we cannot. Our own operations in the market from day to day are dependent upon future events – some technical, some not – that we cannot reliably forecast with accuracy.

(Volcker 1984, quoted in Goodfriend 1986: 76-77)

Volcker’s point was recently echoed by Issing (2014: 10) who, criticising forward guidance, pointed out that the “demand for more information ... from agents in financial markets (and the media) are insatiable”.

Indeed, the experience central banks have so far made with forward guidance suggests that this is not a purely theoretical problem. As described above, the Fed’s forward guidance saw a progressive ‘escalation’, in the sense that the FOMC went to ever greater lengths to assure markets that interest rates would remain unchanged *even if* the economic recovery continued, and *even beyond* the time when the 6% unemployment threshold was reached. Without this escalation, positive economic data would have neutralised the effect of forward guidance on market expectations of the future path of the Fed funds rate. Similarly, modest signs of recovery in the euro area in early 2014 prompted the ECB to specify that the promise to keep its key interest rates “at present or lower levels” was “based on an overall subdued outlook for inflation extending into the medium term, given the broad-based weakness of the economy, the high degree of unutilised capacity, and subdued money and credit creation” (ECB 2014d: 69). Translated into common English, this statement assured monetary insiders that they did not have to fear a rise in interest rates, even if the euro area

growth rate picked up, as long as inflation expectations remained well-anchored, the output gap (“unutilised capacity”) remained positive and bank lending slow.

However, as shown in chapter four, both mid-term inflation expectations and the output gap are, to a considerable extent, endogenous to the communicative interaction between the central bank and monetary insiders. The large degree of uncertainty associated with these variables therefore diminishes the value of the ECB’s ‘promise’. This is what Issing refers to in his critique of forward guidance: “What is presented as state of the art monetary policy is but another example of pretence of knowledge – or, in simpler terms, a violation of the principle ‘Don’t try to be too clever’.” (Issing 2014). His view was echoed by an ECB watcher at a German bank who told me that it would have been “more rational” for central banks to admit that they did not know enough about what was going on and that there were therefore “navigating by sight” (Interview 24).

Interestingly, at the ‘The ECB and its watchers’ conference in Frankfurt, the ECB’s chief economist recently made a point of saying exactly this:

Our approach starts from the premise that the central bank doesn’t have superior knowledge about how the world works. Nor are we likely to have better forecasting abilities than the majority of observers. So what we can do is to provide an explicit, well-articulated frame of reference for our actions. ... In practical terms, this means that communication revolves around providing a narrative about the economy and the outlook for price stability relative to our objective.

(Praet 2014, unpaginated)

Explicitly rejecting the notion of superior central bank knowledge, Praet seems to suggest that he sees forward guidance as a sophisticated effort to develop economic narratives to *persuade* monetary insiders to follow the ECB’s analysis.¹⁹⁸ This clearly

¹⁹⁸ Lorenzo Bini Smaghi, a former member of the Executive Board, has made a similar argument, highlighting the centrality of persuasion (Bini Smaghi 2013): “If central banks really want to convince

raises crucial questions regarding two key elements of the communicative apparatus identified in chapter four, ‘epistemic authority’ and ‘pretence of knowledge’. What would become of forward guidance if ‘pretence of knowledge’ was eliminated from the communicative apparatus of monetary policy altogether? This interpretation was suggested to me by an interview partner who described the problem eloquently:

We have more or less introduced central planning to the financial sector. And now central bankers suffer the fate of all central planners –the grass roots don’t believe any longer that they possess the necessary knowledge. ... And I keep hearing this now – and previously everybody had been hand-fed by central bankers and had pondered their every single word – ‘Well, they [the central bankers] don’t know either how things will develop, we’ll wrestle ourselves free, we stop listening to them.’ ... So that means we have pushed central banks’ central planning to a point where those who are subject to that planning say ‘We don’t believe in it anymore’.

(Interview 26)

While this interview partner seemed most concerned by the impression gaining hold among monetary insiders that the central bank simply did not know, other recent commentary by leading monetary economists and central bank watchers suggests that on top of a loss of confidence in the central bank’s *epistemic authority*, forward guidance may also undermine insider’s view of its *dependability*:

[T]he market knows that central bankers have no superhuman forecasting ability and will tend to view the supposed longer-term forecasts as a version of jawboning, attempts to persuade the market to change its mind for immediate policy purposes. Again there is little empirical evidence that the market responds to such jawboning, and why should it when the central bank is as ignorant of the longer-term future as they are?

(Goodhart 2012)

[A]s implemented thus far it is not clear why anyone should pay much attention to forward guidance as it is, in our view, mostly ‘cheap talk’.

(Buiter 2013: 2)

Anyone who awaits central bank predictions of inflation two years ahead in the hope of finding out how prices are likely to change has not been paying attention.

market participants that the prevailing rates over different maturities should be lower, they should explain why. In particular, they should provide arguments to dismiss the assessment made by market participants according to which interest rates are expected to rise over the medium term.”

When the European Central Bank sets out its predictions for inflation on Thursday, it will be blind luck if the numbers turn out to be right in 2016 ... Whether it is right is neither here nor there, though. The forecasts matter for how they are used; if the ECB is to take a big step further into experimental monetary policy, it needs to predict inflation will stay well below target.

(Financial Times 2014c)

The common thread running through these quotes is that forward guidance has caused monetary insiders to adopt a more cynical view of central bank forecasts. The (academic) economic concept that underpins the above statements is that forward guidance is *time-inconsistent* – once the economy improves and inflation rates start rising, central banks with price stability mandates will have a strong incentive to increase interest rates ahead of the schedule implied by their previous forward guidance (Buiter 2013: 6; Issing 2014: 7; Woodford 2014: 6). There still being no signs of a robust economic recovery in the euro area, a recent example from the UK may serve to illustrate that the cynicism argument is not just a theoretical consideration. At the Bank of England’s August press conference, Mark Carney went out of his way to highlight “remarkably weak” wage growth, which “has enabled firms to expand their margins despite the sharp increase in employment”, implying that rapid growth in output and employment was not exerting upward pressure on inflation (Carney 2014: 2). In the press, Carney’s unusually strong emphasis on weak wage growth was perceived as a strategic use of economic data to dissuade market participants from betting on a sooner-than-expected rate rise. Citing Carney’s “constant refrain that what really matters is the data”, the Financial Times (2014a) commented that “[t]he latest change demonstrates again that what really matters is not merely the data, but how the central bank chooses to interpret it.”

From a broader social theoretical perspective, the question here is not so much why monetary insiders have become more cynical about ‘cheap talk’ by central banks, but why they have become so *only recently*. For if there is no such thing as a “purely ‘objective’ prediction”, forecasts should be expected to be routinely perceived by their audiences as “programmes” (Gramsci 1971: 171).¹⁹⁹ What forward guidance has brought to the fore, then, is that making authoritative macroeconomic forecasts is to exercise power. This point has recently been put eloquently by Beckert:

Influencing the expectations of others and communicating expectations about the behavior of others [and, it should be added, getting away with it without being suspected of pushing a hidden agenda, BB] means exercising social power in the economy. Given the fictional character of expectations, it is not accurate predictions of future states of the world that determine decisions, but rather a political game of negotiation and manipulation of the interpretation of a situation.

(Beckert 2013b: 342)

The fact that over the better part of the period here covered this had *not* been how monetary insiders perceived of central bank forecasts and projections testifies of the success of the ECB’s performance of both dependability and epistemic authority.

To summarise, although arguably only the last step in what has been an evolutionary increase in central bank guidance, the innovation of explicit forward guidance has brought to the surface a tension that has long lingered inside the communicative apparatus of expectation management. Since this apparatus is based on central bank forecasts and projections of future economic developments, a crucial question concerns the extent to which these forecasts are perceived, by monetary insiders, as benefitting

¹⁹⁹. There is empirical evidence for strategic behaviour among private sector macroeconomic forecasters (Lamont 2002) and for over-optimistic bias in official government forecasts in the euro area (Frankel/Schreger 2013). For reviews of the forecasting performances of central banks during the recent financial crisis, see Stockton (2012) on the Bank of England and Alessi et al. (2014) on the Fed and the ECB.

from the epistemic authority of the central bank, or as rhetorical devices used to manipulate their expectations. While this tension has always been present, forward guidance seems to have tipped the balance further towards the latter interpretation, thus undermining the twin-pillars of the pre-crisis communicative apparatus of epistemic authority and ‘pretence of knowledge’.

6.3 Public monetary trust during the crisis: The case of the TARGET2 debate in Germany

A sound currency is a currency that no one notices, a currency that stays in the background and lets markets go about their business – in a word, a mute currency. For when money talks, it is never the language of economics that it speaks, but instead the quite different idiom of sovereignty.

(Orléan 2014: 160)

Chapter five introduced the notion that all monetary systems are hierarchical. In today’s global fiat money standard, the central difference is between publicly created outside money (cash and reserves) and privately created inside money (primarily demand deposits). Inside and outside money are different in legal as well as in economic terms. *Legally*, only outside money is ‘legal tender’.²⁰⁰ In practice, this means that debts among banks, as well as banks’ debts to the central bank or to the government (whose bank is the central bank) must be settled with outside money, through the transfer of reserves from one bank’s reserve account to that of another. *Economically*, the difference lies in the *quality* of the credit claims that circulate as money. Outside money is “the safest of safe assets in the financial ecosystem” because it is the liability of the monetary authority that, for all practical purposes, has a default risk of zero

²⁰⁰ For the euro area, this is prescribed in Art. 128.1 TFEU. The legal tender status of euro notes and coins means that “in the absence of an agreement of the means of payment, the creditor of a payment obligation is obliged to accept a payment made in euro which subsequently discharges the debtor from his payment obligation” (EU Commission 2014).

(Poszar 2014: 14). Since private banks have a positive default risk, their liabilities make for a lower-quality asset.

During normal times, these differences are rendered invisible by two institutional mechanisms. The proximate reason for the invisibility of the *economic* difference is that inside money trades ‘at par’ with outside money, meaning that deposits are convertible into cash at a one to one ratio (Goodhart 1989: 293). At a deeper level, this par relationship reflects the fact that the institutional underpinnings of inside money are thus that it would be more accurate to speak of a ‘public-private partnership’, rather than of ‘privately created’ money. For it is the state that provides the various monetary (the lender of last resort role of the central bank) and fiscal (deposit insurance, implicit bailout guarantees) backstops that together reduce the default risk of private bank liabilities to the point where these liabilities trade at par with the liabilities of the central bank. During times of crisis, fears may emerge of this par relationship breaking down, thus causing bank runs.

The institution rendering invisible the *legal* difference between legal tender and inside money is the payments system. While the hallmark of central bank money is that it “can perform the payment and settlement functions (with finality) at one and the same time, by virtue of its legal tender status” (Issing 2000: 26), the same is not true of demand deposits. When I pay a restaurant bill by debit card, what is transferred to the bank account of the restaurant is not ‘the money’ that I have in my bank account.²⁰¹ Instead, my bank reduces its liability to me (i.e., my deposit) by the amount of the payment and asks the central bank to transfer reserves of the same amount from my

²⁰¹ In fact, the entire concept of me ‘having money in my account’ is potentially misleading. Instead, my deposit constitutes a *claim* on my bank to pay me, or transfer to another bank, central bank money.

bank's account with the central bank to that of the restaurant's bank. The latter then credits the restaurant's account. This example illustrates why "privately issued financial instruments (bank deposits, for example) are not money in this sense [of performing payment and settlement simultaneously] unless complemented by a payments infrastructure" (Issing 2000: 26).

By rendering the legal difference between inside and outside money all but invisible to the general public, today's electronic payments infrastructure – which itself remains invisible during 'normal times' – makes a crucial contribution to the naturalisation of money. The TARGET controversy in Germany provides the only case in which this infrastructure became directly politicised in the public discourse of a country. It is because monetary trust tends to become directly observable only when it turns into distrust (Carruthers/Babb 1996: 1557; Pixley 2004: 4), and because such episodes are rare occurrences, that the TARGET debate offers such a valuable case for the study of the governance of monetary outsiders.

6.3.1 A primer on the economics of TARGET2

In the euro area, the payments infrastructure is run by the Eurosystem, which in doing so fulfils its obligation from Art. 127 (2) TFEU "to promote the smooth operation of payment systems". The *Trans-European Automated Real-time Gross Settlement Express Transfer System*, or TARGET2 (henceforth: TARGET)²⁰² is an interbank fund transfer system that is used by "4,400 commercial banks, as well as 22 national central banks ... to initiate payments of their own or on their customers' behalf" (ECB

²⁰² The update in 2007 from TARGET to TARGET2 was of a mere technical nature that bears no relevance to the present discussion. For reasons of simplicity I will use the numberless acronym.

2011i: 6). Until very recently, few people knew about the existence, let alone the inner workings, of TARGET.²⁰³ This changed radically when Hans-Werner Sinn, the president of the Ifo Institute in Munich and Germany's most public and most outspoken macroeconomist, began to publish widely on TARGET in mid-2011. A series of articles in leading German newspapers (Sinn 2011b, c, d, e) was followed by an English-language article (Sinn 2011a), a widely cited co-authored paper (Sinn/Wollmershäuser 2011, 2012), and, finally, by two full-length monographs in German (Sinn 2012) and English (Sinn 2014).²⁰⁴ In his initial newspaper articles, Sinn exposed the hitherto unnoticed, yet rapidly growing TARGET claims of the Bundesbank, which at the time of his first article in April 2011 stood at €340 billion (see Figure 9).²⁰⁵ His central message was that the Bundesbank's positive TARGET balance was a disguised, gigantic loan to the "GIPS countries" (Greece, Ireland, Portugal, and Spain – henceforth 'deficit countries') on which Germany would have to accept losses in the case of a break-up of the euro area.²⁰⁶ In order to be able to make sense of the stir Sinn's (mis-)interpretation of the TARGET imbalances caused in Germany and beyond, it is necessary to first get a clear picture of their origin and nature.

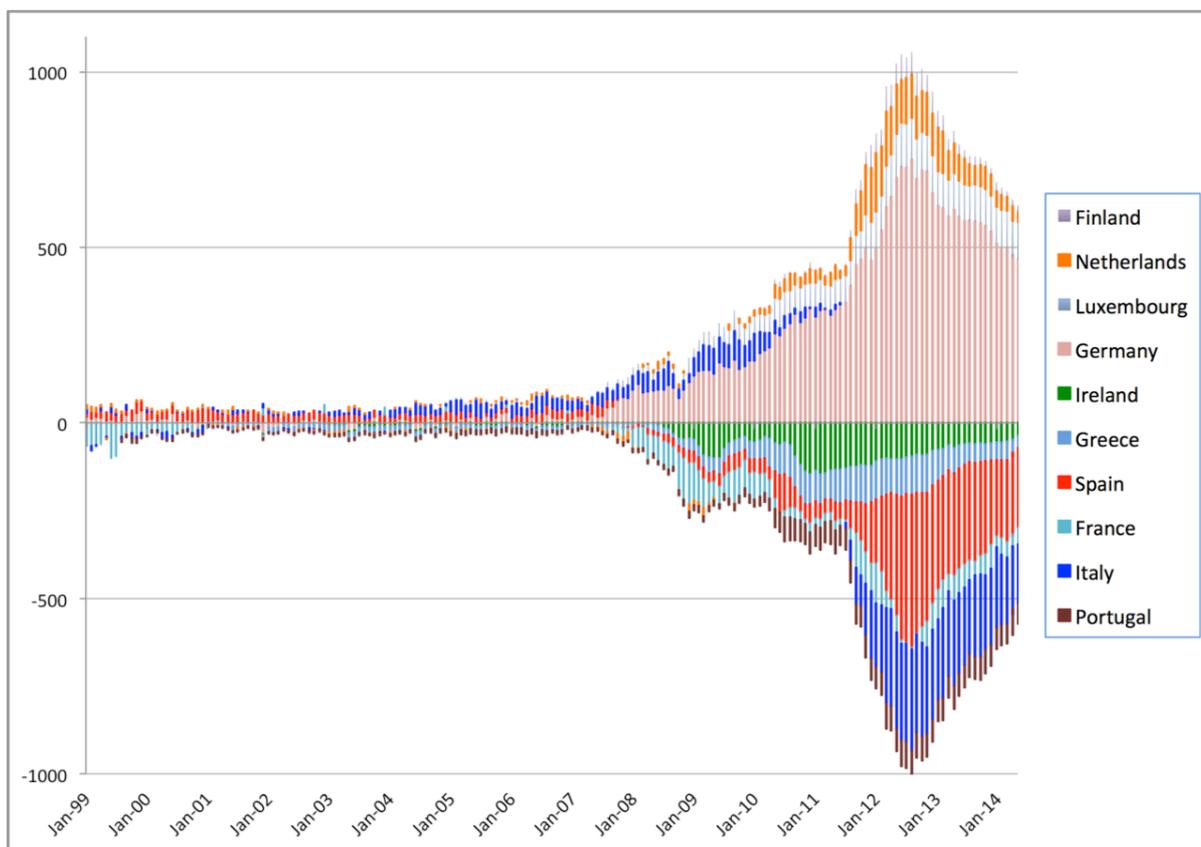
²⁰³ One notable exception being a 1998 working paper by economist Peter Garber, who updated his analysis in 2010, then Global Strategist at Deutsche Bank (Garber 1998, 2010). For an analysis of the private-sector 'sister' mechanism of TARGET2, the Single Euro Payments Area (SEPA), see Quaglia (2009).

²⁰⁴ *The Target Trap: Dangers to our money and our children* ('Die Target-Falle: Gefahren für unser Geld und unsere Kinder') became the bestselling economics book in Germany in 2012. Large parts of the English-language monograph recently published by Oxford University Press – *The Euro Trap: On Bursting Bubbles, Budgets, and Beliefs* – are based on the initial German version.

²⁰⁵ According to Sinn, he had been made aware of the Bundesbank's ballooning TARGET claims in the summer of 2010 by the institution's then 86-year old former president, Helmut Schlesinger.

²⁰⁶ As capital flight set in also in Italy, GIPS (or PIGS) became GIIPS (or PIIGS). In order to avoid confusion about when Italy is included and when it is not, I shall use the term 'deficit countries'. This shorthand for 'current account deficit countries', while also liable to being misunderstood, seems preferable to the geography-based notion of the 'euro area periphery', which is more easily misunderstood as implying a value judgement.

Figure 9: TARGET2 balances of selected NCBs up to May 2014, EUR billions



Data source: Euro Crisis Monitor 2014.

As an interbank fund transfer system, TARGET serves to move central bank money between private banks and the NCBs of the euro area by crediting or debiting the formers' reserve accounts. Such transfers may occur due to dealings between a bank and the Eurosystem (e.g., in the context of a refinancing operation), as a result of transactions between banks in the interbank market, or in settlement of payments made by a customer of one bank to a customer of another bank. TARGET's market share for the processing of large-value payments in the euro area has been around 90% over recent years (ECB 2014c). While TARGET is used both for domestic and for cross-border payments, it is the latter that matter for cross-border imbalances. In

the following example, which is based on Whelan (2014: 84-87), A, who is a customer of Banco Santander in Spain, makes a payment to B, who is a customer of Commerzbank in Germany. Importantly, B providing goods or services to A is only of three possible reasons for this payment – the others being A settling a financial debt, or indeed A and B being the same person moving money from Spain to Germany. It was this latter scenario of capital flight that proved crucial to the rapid growth of TARGET imbalances in 2011 and 2012 (De Grauwe/Ji 2012).²⁰⁷

The *only* way to understand how a payment made by A in Spain to B in Germany results in a TARGET imbalance between the two countries is through a financial accounts perspective (Bindseil/König 2012: 135). Figure 3 shows the impact on the balance sheets of the involved parties of the settlement process of the €100 payment from Mr. A to Mrs. B.²⁰⁸ In the first instance, Santander reduces its liabilities to A by €100. At the same time, and via TARGET, Santander's reserves at Banco de España are reduced, the latter incurring a debt to the Eurosystem. In Germany, the Bundesbank receives a corresponding claim on the Eurosystem, which represents a new asset on its balance sheet. Against this asset, the Bundesbank credits Commerzbank's reserve account, who in turns increases its liabilities to B, thus crediting B's account.²⁰⁹

²⁰⁷. Note that in this capital flight scenario it does not matter whether the individual or firm in question is Spanish (moving capital out of Spain), German (repatriating funds to Germany), or indeed of any other nationality.

²⁰⁸. My balance sheet visualisation is equivalent to Whelan's (2014: 86) representation in list form.

²⁰⁹. Note that while the transactions between the individuals and their respective banks are conducted in deposit money, the TARGET transactions between the banks their respective NCBs are conducted in central bank money.

Table 3: Balance sheet impact of a payment from Mr. A in Spain to Mrs. B in Germany

Santander		Banco de España		Bundesbank		Commerzbank	
- reserves	- deposit Mr. A		- Santander reserves + TARGET liability	+ TARGET claim	+ Commerz- bank reserves	+ reserves	+ deposit Mrs. B

As a result of the €100 payment, *only* A (who is €100 worse off) and B (who is €100 better off) have changed their net asset positions (Whelan 2014: 86). The balance sheet of Santander has shrunk, that of Commerzbank increased. The balance sheets of the NCBs have been affected in different ways – that of Banco de España has changed only its composition (as a result of an asset swap between the old liability to Santander and the new TARGET liability to the ECB), whereas the Bundesbank’s balance sheet has increased as it acquired both a new asset (the TARGET claim on the ECB) and a new liability (increased Commerzbank deposit).

What *has* changed, however, are the reserve positions of the private banks involved in the transactions. Whereas Commerzbank sees an inflow of reserves, Santander suffers an outflow of reserves. This situation was not new – all deficit countries had seen their current accounts deteriorate into (increasingly) negative territory over the period from 1993 to 2007 (Lane 2012: 53). To understand what changed with the onset of the financial crisis in 2008, and especially with the outbreak of the euro area debt crisis in 2010, consider the options of Santander.²¹⁰ Assuming that Santander had held just enough reserves to satisfy its minimum reserve requirement, it now faces

²¹⁰. Note that prior to the crisis the outflow of central bank money from current account deficit countries was largely offset by correspondent private-sector capital inflows – the now-notorious German investments in Spanish and Irish real estate.

three options – it can borrow new reserves, either in the interbank market or from Banco de España, or it can reduce its reserve requirement by shrinking its balance sheet.²¹¹ During normal times, replenishing its reserves by borrowing from Commerzbank, who as a result of the transaction is holding excess reserves, is the natural solution and the most attractive to both sides.²¹² Yet it was precisely this option that ceased being available as the interbank market of the euro area broke down in 2011, for the very same reason that was responsible for the simultaneously accelerating capital flight from Spain: The conclusion drawn both by depositors in Spain and by German banks that lending to Spanish banks had become too risky. In the example, this leaves Santander with only two options – borrowing new reserves from the Eurosystem or reducing its reserve base by shrinking its balance sheet. Given that ‘fire sales’ of assets into distressed markets would have threatened the solvency of most banks (Bindseil/König 2012: 140; Whelan 2014: 87), borrowing from the Eurosystem was the only viable option. The bold-faced entries in Table 4 show the impact of this additional lending on the balance sheets of Santander and Banco de España.

Table 4: Balance sheet impact of a payment from Mr. A in Spain to Mrs. B in Germany with additional reserve borrowing by Santander

Santander		Banco de España		Bundesbank		Commerzbank	
- reserves	- deposit Mr. A + reserves	+ Santander reserves	- Santander reserves + TARGET liability	+ TARGET claim	+ Commerz- bank reserves	+ reserves	+ deposit Mrs. B

²¹¹ Note that with a minimum reserve requirement of 1%, Santander had to hold only €1 in reserves against Mr. A's deposit. In other words, the €100 transfer to Commerzbank leaves it €99 short of reserves.

²¹² This is because, as described in chapter three, Commerzbank can earn a higher interest rate from lending its excess reserves in the interbank market than from putting them in the ECB's deposit facility.

The simple representations in Tables 3 and 4 are all that is needed to understand the key features of the TARGET imbalances. Table 3 shows that the imbalance is the result of capital flight from Spain combined with the unwillingness of Commerzbank to re-lend the excess reserves it accumulates back to Santander (and of Mrs. B to re-invest the proceeds of the transaction in Spain). This implies that the imbalance arises independently of the creation of new central bank money by the Eurosystem. However, as shown in Table 4, the imbalance is *associated* with additional reserve borrowing by Santander, and thus with the creation of additional central bank money by the Eurosystem (through Banco de España).²¹³

On this basis, Hans-Werner Sinn's two most alarmist sets of claims can be rebuked. The first is that TARGET imbalances represented "cheap credit from the printing press" of the respective NCBs, which made it "possible for citizens to continue purchasing goods or assets from abroad, or to pay off foreign debt", thus delaying the necessary macroeconomic adjustment process (Sinn 2014: 199). TARGET thus "was a stealth rescue facility provided by the Eurosystem of which the public knew little, and which dwarfed all of the official rescue programmes" (Sinn 2014: 201).²¹⁴ While not entirely false, this account is nevertheless gravely misleading in several respects. First, it understates role of TARGET as "the backbone of the operational side of the currency union" (Bindseil/König 2012: 138). Had the ECB limited the maximum size of imbalances, as Sinn says it should have, a euro in a Spanish deposit account would

²¹³. This is because the *only* alternative for Santander would be fire sales of its assets – mostly Spanish loans and securities in the sale of which Santander would incur sizeable losses with potentially fatal consequences for its solvency, and thus for the solvency of the Spanish government and the integrity of the euro area.

²¹⁴. These quotes are intentionally taken only from Sinn's (2014) most recent and most academic publication on the topic, in order to not attach undue weight to Sinn's more colourful (and less accurate) formulations in his initial German press writings

have ceased to be of the same value as a euro in a German deposit account. Secondly, while Sinn strongly insinuates that the imbalances were the result of discretionary lending by the NCBs of deficit countries, in reality the operational rules of the Eurosystem left NCBs “essentially no room [to] deliberately increase their TARGET2 liabilities” (Whelan 2014: 89-90). Thirdly, Sinn’s interpretation of TARGET imbalances in terms of German financing of the “living standard” (Sinn 2011b) of the deficit countries understates the extent to which the drain of reserves from the deficit countries during the later phase represented a classic sudden-stop scenario (Merler/Pisany-Ferry 2012), motivated by “speculative fever” (De Grauwe/Ji 2012: 13) or even a “currency attack” (Cecchetti et al. 2012: 14).²¹⁵ The flip-side of this latter argument is that Sinn’s account conceals that German investors, who were massively exposed to the deficit countries, benefitted from the ECB’s provision of refinancing credit to those countries, which enabled them to repatriate their foreign investments and to swap them for the safest asset of all – reserves at the Bundesbank (Cecchetti et al. 2012: 8). Thus, as a society, Germany transformed the exposure of its private sector to the private sectors of the deficit countries into an exposure of the Bundesbank to the Eurosystem (Whelan 2014: 105-106). All of this leaves untouched, of course, Sinn’s central message that this exposure of the Bundesbank carried considerable redenomination risk under the scenario of a break-up of the euro area. However, the foregoing discussion shows that Sinn’s depiction of this risk as the result of hapless

²¹⁵. Probably the most important reason why the TARGET imbalances could cause such confusion was that the euro area had been constructed on the erroneous belief that the common currency would eliminate the condition of possibility for sudden-stop scenarios. Ignoring the possibility of investors questioning the irreversibility of euro area membership, the Maastricht treaty expressly excluded euro area members from receiving EU balance-of-payments assistance under Art. 143 of the Treaty ((Merler/Pisany-Ferry 2012: 3-4); cf. (Braun 2013: 12)).

German charity was utterly misleading.²¹⁶ Yet it was arguably Sinn's alarmist and demagogical tone that made his book on this most technical and least visible aspect of the Eurosystem a popular bestseller (Sinn 2012), and that ultimately brought the issue before the Constitutional Court.

6.3.2 The politicisation of the euro area's automated payment settlement system in Germany

Sinn's arguments gained traction in the public debate as the TARGET claims of the Bundesbank – under the close watch of the media by that time – kept rising, reaching their peak of €751.5 billion in August 2012, before falling again as a result of the official announcement of the OMT programme that month. As a consensus began to emerge that the TARGET claim of the Bundesbank did actually imply a certain financial risk for a break-up scenario, the issue necessitated interventions from interest groups, politicians, and central bankers.²¹⁷ Thus, the TARGET claims of the Bundesbank were described as a “financial nuclear bomb” by the the Association of Bavarian Taxpayers (Bund der Steuerzahler Bayern 2012)²¹⁸ and as a “cause for grave concerns” by a leading MP of the governing CSU (Süddeutsche Zeitung 2012). Follow-

²¹⁶ It is important in this context to remember that refinancing operations are collateralised. Moreover, when it comes to the calculation of the Bundesbank's credit risk from Eurosystem operations, the size of German TARGET claims are irrelevant. This is because the risks associated with refinancing operations are pooled and shared among all NCBs according to their respective shares in the capital of the ECB (Buiter et al. 2011: 4). In other words, under a scenario where country X exits the euro area and actually defaults on its Eurosystem liabilities, the German exposure is given by the combined exposure of all NCBs multiplied by the Bundesbank's capital key (which is currently 25.7% but would be adjusted for the exit of country X).

²¹⁷ The following overview focuses on the controversy as it unfolded in Germany. The sources quoted above – among other, the Financial Times, Citigroup, Bruegel, the Bank of International Settlements – give an indication of the strong international resonance. Sinn even featured amongst the Telegraph's “Ten people who changed the world” in 2011 (Telegraph 2011).

²¹⁸ In a particularly absurd manifestation of public discontent, the president of the Association of Bavarian Taxpayers and of the Taxpayers Association Europe published an article online in which he claimed that the purchase of German football players Mesut Özil and Sami Khedira by Real Madrid had actually been paid for by the Bundesbank (von Hohenhau 2012).

ing increasing public outrage, the president of the Bundesbank, Jens Weidmann, raised the issue of the risks associated with TARGET claims in a confidential letter to Mario Draghi. The letter was leaked to the press, and the Financial Times reported that Weidmann considered the TARGET balances “an unacceptable risk” (Münchau 2012). Presumably in reaction to this and other press reports dramatising the message of the letter, Weidmann felt the need to publish a guest editorial in the *Frankfurter Allgemeine Zeitung*, in which he emphasised that to his mind the Bundesbank’s TARGET claims did *not* represent “a stand-alone risk” because he considered the scenario of a break-up of the euro area “absurd” (Weidmann 2012).

The controversy reached its highpoint when, between 2012 and 2014, the Federal Constitutional Court considered several ‘constitutional complaints’ (‘Verfassungsbeschwerden’). The complaints, which were launched and represented by a number of prominent eurosceptic lawyers, academics, and politicians, aimed primarily at the European Stability Mechanism (ESM) and the Outright Monetary Transactions (OMT) programme and came with the signatures of an unprecedented 37,000 supporters (Financial Times 2014g). Two of the six complaints included the TARGET imbalances.²¹⁹ Although the Court ultimately rejected all complaints as either inadmissible or unfounded (Bundesverfassungsgericht 2014), the episode nevertheless provides a rare opportunity to observe the intellectual and emotional anatomy of a widespread loss of monetary trust among monetary outsiders.

²¹⁹ The first complaint (2 BvR 1390/12) was by Member of Parliament Dr. Peter Gauweiler (CSU), who was represented by Prof. Dr. Wolf-Rüdiger Bub and Prof. Dr. Dietrich Murswiek. The second complaint (2 BvR 1421/12) was brought before the court by group economics and law professors represented by Prof. Dr. Karl Albrecht Schachtschneider.

In legal terms, the complaints argued that the build-up of TARGET imbalances represented a “grave systemic breach of the principle of democracy” (Murswieck 2012: 48) that violated German citizens’ fundamental rights of self-determination, most notably their right to vote under Art. 38 section 1 of the Basic Law. Although compiled only in June (Schachtschneider 2012) and October 2012 (Murswieck 2012), when most of the critical reactions to Sinn cited above were already available, the two constitutional complaints that raised the TARGET issue relied almost exclusively on Sinn’s analysis. The quotes given below are compilations of several key sentences that illustrate the complainants’ understanding of TARGET.

In the export countries, particularly Germany, the TARGET accounts create a secondary monetary base, on top of the primary monetary base that originates from the money creation of the respective national central banks. ... Since TARGET debtors will never be able to repay these [TARGET debts], they represent financing of debtor countries. ... Without the TARGET-2 system the export deficits of the debtor countries could not be financed. ... In any case, the ESCB and the ECB drastically increase the risk of inflation through the expansion of the money supply enabled by the TARGET-2 system.²²⁰

(Schachtschneider 2012: 118-120)

On the basis of the above discussion it is easy to pinpoint at least three false or misleading statements. First, the concepts of a “primary” and a “secondary monetary base” carry no economic meaning in a currency union. Second, “TARGET debtors” are not actually debtors in the usual sense of the word, and there is therefore no reason to expect that they “will never be able to repay” the Bundesbank. This is clear from the dramatic decrease in TARGET imbalances since August 2012. Since the Bundesbank claims had built up as a result of speculative capital flight from the deficit countries to Germany, the return of that capital reduces those balances without the citizens,

²²⁰ In the German original all but the last sentence use the subjunctive to make clear that the analysis is taken from Sinn and Wollmershäuser (2011).

banks, central banks or governments of the deficit countries having to “repay” the Bundesbank. Third, the last statement exemplifies the logic of Political Monetarism, which fallaciously equates central bank money with broad money. If anything –and as clearly illustrated by the euro area’s continuing undershooting of the ECB’s inflation target – the availability of central bank funding to deficit-country banking system has prevented a full-blown debt-deflation scenario in the way of Fischer (1933).

The following quote from the second constitutional complaint repeats some of these misrepresentations, while adding several new ones:

The Target system was created as a payments mechanism, but not as a mechanism for the automated extension of loans. ... Since Target balances have been steadily increasing it became clear that the Target System ... enables all euro area member states to obtain unlimited ‘overdraft credit’ at the expense of other member states, which serve the financing of imports. ... The Target claims [of the Bundesbank] ... result exclusively from the behaviour of other states. ... Viewed in economic terms, the export countries – particularly Germany – have largely financed their export surpluses themselves via the Target loans.

(Murswieck 2012: 48-50)

First, as explained above, the claim that TARGET imbalances “result exclusively from the behaviour of other states” is plainly false. While it is true that the “net foreign asset position of Germany is indeed a source of risk”, as De Grauwe and Ji (2012: 14) have pointed out, “these surpluses are the result of policy choices of that country, it can be said that Germany has chosen to take these risks”. As a result of this net foreign asset position, a considerable share of the fleeing capital represented German investors pulling their investments out of the deficit countries, which led to the ‘socialisation’ of the private sector’s exposure to the deficit countries into a public sector exposure to the Eurosystem. This also shows why the last sentence is – wilfully or not – misleading. For Germans have *always* “largely financed their export surpluses themselves” by re-exporting those surpluses in the form of capital flows to the

deficit countries – this is necessarily true in an economy such as the euro area, which, until the post-2011 current account reversal in the deficit countries, had a largely balanced current account with the rest of the world (Tressel/Wang 2014: 3). Finally, both quotes attribute to the TARGET system what is, in effect, the essence of monetary union. TARGET itself does not provide “overdraft-credit” or “financing”, and it is not “a mechanism for the automated extension of loans”. Instead, it is the Eurosystem’s 2008 switch to full-allotment refinancing operations that allows banks to replenish their reserves diminished by capital flight.

6.3.3 Central bank ‘transparency’ in light of the impenetrable complexity of TARGET

The standard narrative of the post-Bretton Woods evolution of central banking revolves around the shift from impenetrable ‘mystique’ to ‘transparency’, the latter of which has come to be regarded as the indispensable foundation of public monetary trust. This narrative has attained the status of a truism among monetary theorists and policy-makers alike (Blinder et al. 2001; Geraats 2002; Walsh 2007: 143), which not even those other social scientists generally suspicious of economic narratives have felt the need to challenge (Krippner 2007, 2011; Hall 2008; Holmes 2014). In contrast, by taking monetary ignorance seriously, the present study casts doubt on the widespread assumption that today monetary trust is built on the bedrock of central bank transparency. For although it is true that central banks today are much more transparent to monetary insiders, the ever greater complexity of monetary policy has, if anything, made it even more impenetrable to monetary outsiders.

Far from being economically irrelevant, monetary outsiders’ perceptions of money and central banking pose a challenge for governability that is fundamentally different

from the governability challenges posed by monetary insiders. In the case of insiders, the central bank ‘makes’ monetary governability by setting the financial incentives and the ideational conditions for insiders to act and to form expectations in ways that are consistent with the central bank’s goals for aggregate economic activity. In the case of monetary outsiders, on the other hand, the condition and the goal of monetary governability come down to the same (intractable) thing – peoples’ continuing willingness to put their trust in monetary institutions that remain largely incomprehensible to them.

The detrimental effect of the TARGET controversy on monetary trust in Germany perfectly illustrates this dilemma. For this effect did *not* occur because a practice of monetary governance was revealed, understood, and found wanting by the public. Rather, a certain state of affairs – namely, the existence of a large position in the balance sheet of the Bundesbank – was revealed and found wanting because it was *not* fully understood. Understanding the practice in question “requires a precise financial account representation of the economy” (Bindseil/König 2012: 135) – a representation that virtually no one in the German public discourse was both capable and willing to offer. More than any other episode, the case of the TARGET imbalances therefore embodies the fundamental dilemma of monetary governability with regard to monetary outsiders – the dilemma that the irreducible complexities of the monetary system make this system fundamentally intransparent to the public, which in times of crisis, when these features suddenly become visible, causes trust in the ECB and the euro to evaporate.

To be sure, the ECB *did* try to quell inflationary and fiscal fears that had been sparked in Germany by Sinn’s alarmist tone. It spelled out the origins and the

meaning of the TARGET imbalances in the Monthly Bulletin (ECB 2011e, 2013e) as well as in two detailed papers (Bindseil/König 2012; Cour-Thimann 2013). Moreover, the Director of General Market Operations at the ECB, Ulrich Bindseil, is about to publish a monograph titled *Monetary Policy Operations and the Financial System* with Oxford University Press (Bindseil 2014). Unlike previous publications on issues related to monetary policy implementation (Mercier/Papadia 2011), the book is addressed at a broader readership beyond the small circle of central bank and counterparty peers. It is clear from the back matter that the underlying motivation for the book is to improve the public understanding of monetary policy operations: “The limited interest that monetary policy operations have found for many decades in academic economics may well have contributed to the many misunderstandings on central bank actions over recent years.” This decision of the ECB to publish an educational account of monetary policy operations more than one and a half decades into stage III of EMU should be interpreted as an attempt to cope with governability challenge posed by the loss of public monetary trust as a result of the financial crisis. At a time when monetary ignorance no longer serves a useful function in the ideological apparatus for the naturalisation of money, in fact undermining public monetary trust instead, the ECB – like the Bank of England – reaches out to ‘multipliers’ such as journalists, academics, and politicians, in order to increase public understanding of monetary governance.

6.4 Conclusion

This thesis has developed an analytical framework for the analysis of central bank agency and monetary governability. That framework is based on the distinctions of three economic groups associated with three performative modes of monetary gov-

ernance, which operate through a financial, a communicative, and an ideological apparatus, respectively. Whereas chapters three to five traced the construction and subsequent development of these apparatuses in the euro area, the present has focused on three specific episodes from the recent financial crisis, each of which represents a major modification of the relevant apparatus of monetary policy. The ECB's initiative to perform an 'improved' ABS market – a textbook case of the type of 'market engineering' that inspired Callon's work on the performativity of economics – constitutes an attempt to make the financial apparatus of monetary policy implementation more robust, by creating the conditions that would allow for quantitative easing during future periods of financial instability. The ECB's forward guidance represents a major modification of the communicative apparatus of monetary policy that may, in the longer term, undermine two constitutive elements of the this apparatus – the ECB's epistemic authority, and the mutually agreed-upon 'pretence of knowledge' that had underpinned the interaction between the ECB and monetary insiders. Finally, the TARGET controversy in Germany provided a case in which one of the key mechanisms for the ideological naturalisation of money, the payments system, became politicised. The failure of the protagonists in this controversy – economists, the media, the academics, politicians, and lawyers authoring the constitutional complaints, and, ultimately, the Constitutional Court itself – to grasp or to communicate the workings of TARGET showed that the sheer complexity of the monetary system imposes strict limits on central bank transparency, with negative implications for public monetary trust.

When first introducing the three apparatuses in chapter two, I indicated that in practice they could not always be neatly separated. This caveat notwithstanding, however, the distinction yields two significant analytical benefits. On the one hand, it en-

ables a more targeted and nuanced analysis of what the preceding chapters have shown to be vastly different governability challenges, and therefore vastly different modes of monetary governance. At the same time, however, the distinction also makes it possible to consider the interaction and mutual interdependence of these distinct dimensions of central bank agency. The present chapter has revealed at least two such points of contact.

Firstly, while clearly representing a modification of the communicative apparatus of the euro area, forward guidance was directly related to the temporary failure of this financial apparatus. According to the ECB, the decision to adopt forward guidance was taken “at a time when euro area money market interest rates had been rising and had become more volatile”, which “had caused an effective tightening of the monetary policy stance” (ECB 2014d: 69). In other words, forward guidance constituted an attempt to compensate – via a modification of the communicative apparatus – for the relative loss of control over interest rates, which, during normal times, are governed through the financial apparatus. Yet while other central banks have used it as a *complement* to quantitative easing, the ECB, whose financial apparatus did not allow for this option, has effectively used forward guidance as a *substitute* for QE.²²¹

Secondly, the preceding analysis suggests that the functioning of one apparatus can actually have negative repercussions in one of the other dimensions of monetary governability. Thus, as explained above, instead of constituting an aberration, the TARGET imbalances actually reflected the orderly functioning of the financial apparatus, in the sense that the integrity of the euro area was maintained in spite of a partial

²²¹ Both unconventional policies are designed to influence longer-term interest rates, thus extending the reach of monetary policy further into the future.

freeze of the interbank market. Yet the resulting imbalances on national central bank balance sheets led to a politicisation in Germany of one of the pillars of the ideological apparatus that, during normal times, plays a key role in the naturalisation of money. The resulting ‘denaturalisation’ of money in Germany meant that the euro was no longer a “mute currency” (Orléan 2014: 160), but one whose institutional underpinnings had suddenly become made themselves heard. The TARGET controversy therefore powerfully illustrates that the ‘silence’ of the financial apparatus is actually part and parcel of the ideological naturalisation of money, because “when money talks, it is never the language of economics that it speaks, but instead the quite different idiom of sovereignty” (Orléan 2014: 160).

Conclusion

Although we work through financial markets, our goal is to help Main Street, not Wall Street.

(Janet Yellen in her first speech as Fed chair, 2014)

A history of economics should be written, which shows up the mechanisms through which the strongest – that is, the best equipped – agencies become stronger by performing the very world in which they can thrive.

(Callon 2007: 347)

In 1992, economists David Folkerts-Landau and Peter M. Garber (1992) published a paper titled “The European Central Bank: A Bank or a Monetary Policy Rule”, in which they commented on what was then still the ‘Draft Statute of the European System of Central Banks and of the European Central Bank’. Their analysis was based on the distinction – today well-established in the *Varieties of Capitalism* of literature (Hall/Soskice 2001) – between “highly securitized and liquid financial markets, such as the United States and the United Kingdom” on the one hand, and “financial systems with predominantly bank-intermediated credit, such as Germany” on the other hand (Folkerts-Landau/Garber 1992: 25). Associating the former with greater efficiency and the latter with greater stability, Folkerts-Landau and Garber were interested in what the Draft Statute of the ECB implied for the positioning of the future monetary union on what they called the “credit risk – financial market efficiency trade-off” (1992: 27). In what proved to be one of the most farsighted analyses of the governability challenges posed by EMU, they argued that the Draft Statute’s envisioning of the ECB as a pure “monetary policy rule”, as opposed to a traditional “central bank”, implied that the euro area would have to impose strict regulatory limits on its banking sector in order to maintain financial stability:

Current central banking practices in the major industrial countries tend to support the hypothesis that liquid, securitized financial markets need to be supported by a central bank with *broad banking functions* – lender-of-last-resort, involvement in the payment system, and the supervision and regulation of the banking system. In particular, central banks in the large industrial countries with highly securitized and liquid financial markets, such as the United States and the United Kingdom, have a clear objective to secure stable banking and financial markets, in addition to their monetary policy objective.

(Folkerts-Landau/Garber 1992: 25, emphasis added)

Since Folkerts-Landau and Garber’s writing, their analysis has been born out in four major ways. First, the final version of the Statute did still not assign the ECB any specific responsibilities regarding financial stability, except for the provision of Art. 3.1 “to promote the smooth operation of payment systems”. Second, the banking system of the euro area was *not* prevented from approaching the model of “highly securitized and liquid financial markets” that Folkerts-Landau and Garber deemed inconsistent with such a narrowly conceived central bank. Instead, as recently shown by Hardie et al. (2013), both the securitisation and trading of loans and the short-term, market-based funding of bank assets have increased significantly in the euro area, transforming the model of bank-based intermediation into a system of “market-based banking”. Third, Folkerts-Landau and Garber’s notion of the relatively greater instability of this type of market-funded banking system was borne out by the events of 2008-09 (Gorton/Metrick 2012). Finally, the fourth point brings us back to the very beginning of this thesis, by offering an answer to the question of how the president of the ECB could possibly be considered one of the most powerful people in the world. We can now see that the answer has to do with the fact that the ECB has, over time, assumed the functions that Folkerts-Landau and Garber were missing in the Maas-

tricht Treaty, thereby evolving from a mere “monetary policy rule” into a full-scale “central bank”.

Fragile monetary governability: The three apparatuses in good times and in bad

The reason for beginning this conclusion by discussing an almost-forgotten 1992 working paper is to be reminded of three crucially important points: First, the ECB was not, initially, designed as a full-scale central bank; second, its narrow conception as a monetary policy rule reflected a view of the financial system already, in 1992, in the process of becoming obsolete; third, the recent expansion of the ECB therefore carries an important element of catch-up. Crucially, however, the effects of this catch-up process on monetary governability are by no means unambiguously positive. The notion of the ECB coming into its own as a central *bank* should not blind us to the fact that the expansion of ECB agency has not been a smooth process. In particular, my disaggregated analysis of the three dimensions of monetary governability shows how the evolution of the associated apparatuses has brought hitherto latent tensions – within and between those apparatuses – to the surface.

The financial apparatus

The tendencies to disregard the financial dimension of central bank agency and to view the latter in purely monetary terms is as old as monetary policy itself (Knafo 2013: 15, for the quotation see page 226 above). In the case of the ECB, however, this disregard took an extreme form – as noted by Folkerts-Landau and Garber in 1992, what the Maastricht Treaty envisioned was a monetary policy rule rather than a central bank. Arguably, this narrow conception of central bank agency was the result of a

unique confluence of historical and intellectual factors, such as the still-vivid memory of the inflation crisis of the 1970s, the unrivalled authority and credentials of the Bundesbank model as a result of its having suppressed inflation in Germany, and the fact that, in 1992, financial innovation and financialisation had not taken off just yet. This is not to say, of course, that monetary policy-makers had forgotten all about their traditional role as lender of last resort. They were well aware that the role of the central bank in normal times was different from its role in financial crises (Lenza et al. 2010; Fahr et al. 2011). Moreover, during the banking crisis of 2008-09 the fact that the ECB had always allowed a large number of counterparties access to its refinancing operations was seen as a considerable advantage, especially vis-a-vis the Fed whose counterparties comprised only a small number of ‘primary dealer’ banks. This allowed the ECB to lend directly to the banking system, and thus to effectively replace the dysfunctional interbank market both after the collapse of Lehman Brothers and again after 2011, in the context of the sovereign debt crisis.

Another peculiarity of EMU, however, posed a governability challenge that the ECB found it difficult to cope with. This was the non-availability of the policy option of a large-scale asset purchase programme. As argued in section 6.1, the reason why the ECB remains the only big-four central bank not to engage in quantitative easing is simple – there has been no market for it to intervene in. While the monetary financing prohibition of Article 123 TFEU has taken sovereign bonds off the table (except for the strictly limited Securities Markets Programme), the collapse, in 2009, of the market for asset-backed securities has made this market unfit for the purpose of QE, too. This meant that unlike its peers, who could increase the supply of central bank money by *buying* public and private securities from banks or other financial institutions, the

ECB was constrained to increasing liquidity through *lending* against collateral. As described in chapter three, the ECB made several changes to its operational framework in order to satisfy the demand for central bank money, such as switching to a full-allotment tender procedure, lowering the minimum reserve requirement, relaxing its collateral-eligibility criteria, and conducting long-term refinancing operations of maturities of up to three years. While these measures allowed the ECB to fulfil the lender of last resort function of preventing illiquidity from causing insolvencies in the banking system, they could not do what quantitative easing (and forward guidance) were designed to achieve – extend central bank control from short-term to long-term interest rates. Making long-term rates a policy variable – most central banks had previously considered it essential that long-term rates be determined by market forces – meant to expand the financial apparatus beyond its traditional crisis-function of bolstering financial stability to directly stimulate aggregate economic activity. In this context, chapter six showed that in order to create the conditions for QE, the ECB has been involved in a long-standing effort to ‘improve’ and revive the European ABS market. Recent announcements of concrete preparations for an ABS purchase programme thus come on the back of the ECB actively creating the required, governable market structures.

The communicative apparatus

The communicative apparatus of expectation management, which governs the interactions between the ECB and monetary insiders, was examined in chapter four. Here, too, the analysis revealed intransparency to be a key element of the apparatus. Unlike in the case of outsiders, however, this type of intransparency results not from a discre-

pancy in financial sophistication between the central bank and its audience, but from the irreducible uncertainty of the economic data that are the subject of communication. Chapter four identified two performative mechanisms through which the communicative apparatus mitigated, or worked around, this uncertainty, thus rendering the process of private sector expectation formation governable. In all three cases theatrical performances in Goffman's sense are instrumental in the performance of 'rational' expectation formers in Callon's sense. Thus, the communicative apparatus involved Governing Council members performing as 'inflation nutters' – or 'inflation Taliban', as one ECB staff member put it – without inflation necessarily being their only concern. This 'pretence of single-mindedness' served the function of disentangling and framing private sector expectation formation by reducing the number of variables that feature in central bank communication. Thus, while pretence (a perceived lack of 'authenticity') would usually be judged detrimental to someone's credibility, in the context of monetary governance under uncertainty it constitutes an indispensable precondition for central bank credibility. The second performative mechanisms also relates to credibility. Here, however, the purpose of the performance is not to reduce complexity, but to foster the epistemic authority that the ECB enjoys among its insider audience. Largely overshadowed by the prevailing understanding of credibility as dependability, epistemic authority constitutes a second dimension of central bank credibility. While in the aftermath of the crisis many critics were quick to diagnose a pathological syndrome of Hayekian 'pretence of knowledge', my own analysis suggests an understanding of pretence of knowledge not as a perversion, but as a key performative element of the communicative apparatus of expectation management. Crucially, the inherent fragility of this apparatus comes to the fore the further it extends

its reach into the future. In order to elaborate this argument, chapter six focused on the extension of the ECB's communicative apparatus under its newly adopted policy of forward guidance, which for the first time targeted long-term interest rates. The analysis revealed increased cynicism among monetary insiders, who have begun to question precisely the 'authenticity' of ECB forecasts, increasingly seeing them as rhetorical devices rather than impartial forecasts backed by superior economic expertise. In short, the extension of the ECB's communicative apparatus into the future shows signs of overreach.

The ideological apparatus

Drawing on Ingham's notion of the naturalisation of money as a constitutive element of any monetary economy, chapter five identified an ideological apparatus that naturalises the money of the euro area as a quantity under the direct control of the central bank. This apparatus includes a series of heterogeneous elements – the theory of Political Monetarism, the ECB's performative insistence on its reference value for the annual growth rate of M3, and the smooth and invisible operation of the payments system. As a result the successful naturalisation of the euro is, to a greater extent than commonly acknowledged, built on intransparency. Yet although this intransparency is actively nurtured by the performance of the ECB, it cannot be 'blamed' exclusively on this performance. Instead, intransparency to monetary outsiders is not only an inevitable feature of the monetary system, but also a constitutive element of the ideological apparatus of monetary trust and thus of monetary governability more generally. Crucially, however, this analysis pertains only to the 'normal times' of the pre-crisis period. The implications of 'public monetary ignorance' for monetary

governability could turn negative in the context of central bank activism during crisis times. Specifically, the misconception – previously happily tolerated by central banks – of a direct link between M0 and M1 caused public fears of inevitable inflationary consequences from the QE-related increase of M0. Having illustrated this argument through a brief discussion of the Bank of England’s recent public education offensive, I elaborated it further through an analysis of the politicisation of the payments infrastructure of the euro area, which occurred in Germany as a result of the TARGET claims accumulated by the Bundesbank. In the absence of QE in the euro area, the TARGET issue – which Hans-Werner Sinn and others framed in terms of ‘excess money’ being created by the Eurosystem – was a manifestation of the same underlying tension. In both cases, this tension arose from the sudden increase in the visibility of the least transparent aspect of central bank agency – that is, the *bank*-aspect embodied in the financial apparatus. In both cases, this sparked distrust among monetary outsiders.²²²

The ECB and the ‘strange non-death of neoliberalism’: How taking central bank agency seriously complicates the picture yet is essential to understanding it

The introduction to this study contained a plea to readers with no specific interest in the social studies of money and central banking to bear with me. The promise was that engaging with monetary governance at a level of detail that some readers – and who could blame them? – were likely to experience as tedious would be rewarded by new insights of immediate relevance to broader debates within the political economy literature. It falls to the remainder of this conclusion to cash in on that promise.

²²² It should be emphasised that there may be very good reasons for such distrust.

In the wake of the financial and economic crisis, the overarching debate in political economy – spanning IPE, CPE, and European political economy – has revolved around the apparent puzzle of what Colin Crouch (2011) has dubbed “The Strange Non-Death of Neo-Liberalism”.²²³ Bracketing the unwieldy question of the precise definition of neo-liberalism (cf., Hay 2004; Mudge 2008; Schmidt/Thatcher 2013b), I will focus on only two key principles of neo-liberal governance – the macroeconomic policy paradigm shift from Keynesian demand management to monetarism (and subsequently inflation targeting) (Hall 1993; Blyth 2002), and financial deregulation and innovation (Duménil/Lévy 2004; Glyn 2006; Krippner 2011). In both dimensions, the EU in general (Hay/Rosamond 2002; Höpner/Schäfer 2012) and EMU in particular (McNamara 1998; Verdun 1999) have long been regarded as vehicles for and drivers of neo-liberal ideas and policies.

This study has emphasised that the irreducible hybridity of the ECB’s agency as a central bank makes it highly problematic to treat it as one among several bureaucratic actors, such as the European Commission or the European Court of Justice. In the following I will show how my analysis reveals a more complex and complicated picture of the trajectory of monetary governance in the euro area. I will also show that the second aspect of my conceptualisation of central bank agency – the distinction of three audiences and corresponding governability challenges and apparatuses – helps to make sense of this trajectory. Specifically, I will show that, depending on the angle from which one looks at it, the recent path of monetary governance in the euro area can be interpreted in three different ways. Of those interpretations, only the first is ful-

²²³ See, for instance, Streeck (2011), Blyth (2013a), Langley (2014), the contributions to Schmidt and Thatcher (2013a), and the contributions to the special issue edited by Crespy and Ravinet (2014).

ly compatible with the resilience of neoliberalism hypothesis. The second one can be reconciled with the hypothesis, but the third is fundamentally incompatible. In these various interpretations, the ECB appears as an advocate of financial deregulation and innovation (and thus of neo-liberalism), as returning to a hydraulic mode of macro-economic governance, or as a central planning authority. As an important caveat it should be noted that by describing interpretation X as ‘incompatible’ with the resilience-of-neo-liberalism literature my intention is not to say that interpretation X invalidates this literature. Instead, my point is to show that the application to central banking of concepts that are not adapted to and thus do not capture the specificities of central bank agency is likely to run into problems, and that, conversely, my accounting for these specificities makes a positive contribution to the larger debate about where economic governance in the euro area is heading.

The ECB as an agent of financialisation

The first interpretation of the ECB’s push to revive the securitisation and sale of loans – the very financial innovation that is widely credited for having triggered the 2008 financial crisis – highlights that this push actively fosters the further financialisation of the euro area banking system.

Even with the decision over QE still pending, it is precisely the momentary *unavailability* a QE option and the ECB’s scrambling to *render it possible* that are most revealing with regard to what in the introduction I described as the political economy of the *practices* of monetary governance (as opposed to the political economy of interest group conflicts over policies). To see why, we need to return to the notion of the hybrid nature of central bank agency. Operating through *quid-pro-quo* market transac-

tions, the ECB is dependent on the existence of financial markets in which such transactions can be conducted. Since under hydraulic macroeconomic governance the size of interventions is key to their success, any target market must be deep and liquid enough to be able to absorb the presence of as large a buyer (or seller) as the ECB. Once the markets for sovereign bonds and for ABS were ruled out, the ‘financial firepower’ of the ECB had nowhere to go.

As shown in chapter six, the reaction of the ECB has been to actively create the “missing asset markets”, the absence of which hinders the transmission of monetary policy to certain sectors and regions of the euro area economy (Brunnermeier/Sannikov 2104: 16). The ECB has thereby placed particular emphasis on the securitisation of loans to small and medium-sized enterprises, whose traditional reliance on bank loans for financing puts them beyond the reach of central bank agency. Clearly, this represents a curious turn of events. As argued above, the ECB began as a narrowly conceived central bank whose mandate did not reflect the rapid changes underway in the financial system – namely, market-based bank funding and securitisation of bank lending. The subsequent evolution of the ECB into a full-scale central bank is therefore best seen as a delayed adaptation to the process of financialisation – defined as “the increased ability to trade risk” (Hardie 2012: 14) – that was correctly anticipated by Folkerts-Landau and Garber back in 1992. Initially, this transformation from a ‘relationship-based’ to an ‘arms-length’ banking system was seen with scepticism by central bankers who had “a natural bias in favor of relationship-based systems”, which were considered to facilitate the transmission of monetary policy (Rajan/Zingales 2003: 38). And yet, as shown in chapter three, the effort to make the euro area fit for the purpose of monetary governance meant that the ECB was, from the very be-

ginning of Stage 3 of EMU, actively involved in creating the conditions – notably, an integrated and highly liquid interbank market – would facilitate the further financialisation of the euro area banking system. As mentioned in chapter three, a 2010 review by the ECB observed a “dramatic expansion of securitisation activities and an increased reliance on market-based sources of funding” (ECB 2010a: 89).

More recently, the ECB could be seen acting – much more visibly – as the leading champion of securitisation, actively pushing for a revival of an enhanced ABS market and thus for an ‘arms-length’ banking system.²²⁴ A joint ECB-BoE discussion paper on ABS went as far as describing measures adopted by other regulatory bodies as “unduly conservative” (ECB and Bank of England 2014: 15). To summarise, then, the newly expanded ECB is not only a product, but also an *agent of financialisation*.

Regarding the question of the resilience of neo-liberalism, accounting for the concrete practices of monetary practices adds an important nuance to the first interpretation. For on the one hand, the ECB’s ABS initiative has been geared towards fostering the “self-regulating market mechanisms” on which “the Eurosystem’s approach to monetary policy implementation relies” (ECB 2008d: 71). From this perspective, the ECB’s advocacy of further financialisation appears as a textbook example of a neo-liberal policy undertaken by *the* textbook example of a neo-liberal policy-making institution. On the other hand, this advocacy is not intended to reduce state control, but, on the contrary, to expand the reach of the ECB’s financial apparatus in a situation in which monetary governance fails to reach crucial parts of the euro area economy via the traditional transmission mechanism. It is part of an ongoing effort to ‘repair’ the

²²⁴ For a discussion of the regulatory approach of “market enhancement” in the post-crisis environment, see Mügge (2013).

transmission mechanism of monetary policy and thus to *re-assert central bank agency*. While this second consideration adds an important nuance, a case in which a policy affects a market in ways consistent with neo-liberalism while being associated with a *strengthening* of state control over the economy does not, in principle, pose a problem to the literature cited above, which has long known – in fact, since Polanyi (Clift/Woll 2012: 312) – that in practice neo-liberalism “requires a strong state capable of imposing neo-liberal reform” (Schmidt/Woll 2013: 113, cf. Crespy/Ravinet 2014: 15). A problem does appear, however, if the trend towards QE is considered in light of the distinction, developed in chapter two, between performative and hydraulic macroeconomic governance.

The ECB and the return of hydraulic macroeconomic governance

Chapter four described the ‘expectationalist’ consensus among monetary theorists and practitioners, according to which the lynchpin of monetary governability was not the central bank’s actions, but its words (Woodford 2003: 15; Gürkaynak et al. 2005; Morris/Shin 2008: 89). In terms of the different dimensions of central bank agency, this implies the primacy of the communicative apparatus of expectation management over the financial apparatus of monetary policy implementation. Chapter two had identified this primacy of ideational over material interventions as one of the key differences between the Keynesian policy paradigm of fiscal demand management and the policy paradigm of monetary inflation targeting. The former was ‘hydraulic’ in the sense that stabilisation policy took the form of the government *directly* influencing aggregate demand by spending money on goods and services. The latter is ‘performative’ in the sense that stabilisation policy takes the form of the central bank manipulat-

ing private actors' expectations about the future path of inflation, growth, and the interest rate, thus influencing aggregate demand *indirectly*.

That said, the negative reception of forward guidance, and thus the signs of overreach of the communicative apparatus, suggest the relationship between the communicative and the financial apparatus have reached a tipping point. This is best illustrated by two statements, by a former ECB Executive Board member and by the chief European economist of Goldman Sachs, both of which were meant – although not obvious from the quoted excerpts – as calls for QE:

[I]f central banks really want to change the shape of the yield curve they may have to do more than just talk. They may have to intervene directly, either through additional quantitative easing, longer term financing operations with the banks (at fixed non-indexed rates), and possibly also further rate cuts. In other words, if they want to be effective central banks have to put their money, and balance sheets, where their mouths are.

(Bini Smaghi 2013)

If you can retain credibility and confidence, that may be all you have to do; markets will do the heavy lifting for you ... But not all problems can be solved by shifting market expectations and behaviour. Sometimes fundamental changes are needed.

(Huw Pill, quoted in Times 2014b)

These statements not only support the notion of an overreach of the communicative apparatus, but suggest an interpretation of QE – imminent in the euro area, a reality elsewhere – as a return to a hydraulic mode of macroeconomic governance.²²⁵

Unlike the first interpretation, then, this take on the current trajectory of monetary governance *does* pose a challenge to the resilience-of-neo-liberalism literature. The

²²⁵ While the ECB's delaying of its ABS purchase programme is seen by many as having done harm to the recovery of the euro area economy, it also puts the author of this work in the difficult position of not placing too much argumentative weight on a decision that has not yet been made (or announced) but that is widely regarded as being a matter of weeks rather than months. Days before this thesis was submitted the ECB was reported to have hired the advisory arm of BlackRock, the giant asset manager, to "help the ECB to design a programme to buy asset-backed securities" (Financial Times 2014d).

ECB's push to revive securitisation loses much of its neo-liberal allure if seen as a way of preparing the ground for an ABS-focused asset purchase programme – and thus for a return to a hydraulic mode of macroeconomic governance. According to Hay's (2004: 508) definition – taken up again by Schmidt and Thatcher (2013b: 5) – one key element of neo-liberalism is a “rejection of Keynesian demand-management techniques in favour of monetarism, neo-monetarism and supply-side economics”. While a QE programme does not contradict the first part of that definition, it is at odds with the principle of supply-side economics. It represents a return to what chapter two described as a hydraulic mode of macroeconomic governance in the sense that it involves the monetary authority (under Keynesian demand management it would have been the fiscal authority) expanding its balance sheet to directly increase demand in the (financial) economy. The perceived need for the central bank to do so is a direct consequence of financialisation – as noted in chapter three, the ‘discoverers’ of a separate “risk-taking channel” in the transmission of monetary policy have linked its emergence to the process of “financial liberalisation and innovation” that has made credit creation more responsive to swings in risk perception, and thereby increased the impact of the latter on aggregate demand (Borio/Zhu 2012: 237).

And yet, even this second interpretation can be reconciled with the resilience-of-neo-liberalism literature. Since the expansion of the central bank balance sheet finances the purchase not of goods and services but of *financial assets*, whose prices are propped up as a result, the expanding agency of the state can be said to be channeled into a form – monetary governance – that is fundamentally compatible with financialisation, and thus neo-liberalism.

Central banking as central planning

The third interpretation of the expanding role of the ECB, however, cannot be reasonably accommodated within the resilience-of-neo-liberalism framework. According to this interpretation, the ECB's attempts to extend the reach of its communicative and financial apparatus further into the future – that is, to extend its control from short-term to long-term interest rates – has resulted in central banking morphing a form of central (bank) planning. Two seasoned financial sector economists that I interviewed were particularly outspoken in this regard: “The bond market is not a free market anymore, but a centrally controlled, quasi-monopolistic market” (Interview 19). As a pension fund manager, this interview partner emphasised that through “concerted action” the leading central banks were effectively engaging in “oligopolistic price-setting”, thus determining developments in the bond market and, therefore, in pensions – a view my interview partner described as a “global consensus” among investors. The same point was made by another interview partner (Interview 26; the following preceded the passage quoted on page 244 above): “With the ever-stronger influence of central banks on financial markets – Greenspan, ‘Maestro’, and all the rest of it – we have effectively moved towards a centrally planned financial system. We have more or less introduced central planning to the financial sector.” Saying that monetary governance carries an element of central planning is not, of course, a novel insight. After all, as described in chapter three, the transmission mechanism of monetary policy begins with the central bank fixing the price for short-term liquidity in the interbank market. However, as made clear by the pension fund manager just cited, the difference is made by the vast increase in the scale of this price-fixing over recent years.

In short, there has been tendency for central banks to determine outcomes in the bond and equity markets through their coordinated, oligopolistic presence in the former.²²⁶ It would be a stretch to try and reconcile this form of central planning with either the previous rhetoric of the ECB²²⁷ or the resilience-of-neo-liberalism thesis. Crucially, however, while incompatible with the intellectual superstructure of neo-liberalism, central bank planning is *compatible with financialisation*. Indeed, the ‘unconventional policies’ adopted in unison by the big-four central banks are widely regarded as having caused a “fall in perceived downside risk” that has “buoyed financial markets and drove investors into riskier asset classes” (BIS 2013: 1). In unusually brisk language, the same BIS report has warned of “a renewed sense of optimism in financial markets with which macroeconomic performance has yet to catch up.”

The institutional entrenchment of the financialisation-ECB empowerment nexus and the prospects for change – bringing outsiders back in

By drawing the insights from the different chapters of this work together, this conclusion has substantiated the claim made in the introduction that the literature on the political economy of monetary and economic policy more generally stands to benefit from a deeper engagement not only with the outcomes, but with the concrete practices of monetary governance. My analysis of these practices reveals the deeply intertwined nature of the two defining features of the post-crisis economic (governance) landscape of the euro area – the progress of financialisation and the empowerment of the ECB.

²²⁶. Note that that this is true for the ECB even in the absence of QE, since its forward guidance and the expansion of its balance sheet via full-allotment long-term refinancing operations equally exert downward pressure on long-term interest rates.

²²⁷. This approach has been described by the ECB (2008d: 71) as follows: “One good example of [the ECB’s market-based approach to monetary policy implementation] is the ECB’s limited presence in the market – i.e. its ‘hands-off’ approach with very few direct interventions in the market, typically only once a week, and more frequently only in periods of financial market stress.”

This analysis carries important implications for how we conceive of the disconnect, identified by the BIS and many others, between valuation in the financial economy and growth and employment in the real economy.

To be sure, neither the strong institutional position of the ECB within EMU nor scholarly awareness of this strength are new – as noted by Dyson (2000: 16), “the Euro-Zone started life as ECB-centric”. However, in studying ECB power, the European political economy literature has focused almost exclusively on the political-institutional underpinnings of that power, highlighting intergovernmental politics (Dyson 2000), delegation and accountability (Elgie 2002), legal and organisational aspects (Howarth 2009), or bureaucratic politics (Hodson 2011: ch. 2) – in short, what Quaglia (2008: ch. 5) has termed the “micro-institutional” and the “macro-institutional framework[s]” of the Eurosystem. In contrast, *the relationship between ECB power and the financial landscape* of the euro area has received much less attention. Yet it is precisely this relationship that holds the key for a more holistic understanding of the (new) political economy of central banking.

What my analysis shows is that the *continuance* of financialisation and ECB empowerment – aspects of the puzzle of the resilience-of-neo-liberalism literature – cannot be attributed to explanatory factors such as industry power, regulatory capture or neo-liberal ideational hegemony alone. While there can be little doubt that historically these factors were instrumental in bringing about financialisation and ‘ECB-centric’ governance, these features of the euro area have since developed a *mutual dependency*, the economic logic of which has *emancipated itself* from the original, political factors highlighted by the European political economy literature. Thus, on the one hand, as argued by Folkerts-Landau and Garber, a financialised economy depends on a cen-

tral bank strong enough to cope with financial sector instabilities. On the other hand, in order to re-assert control in the face of these very instabilities, the ECB has come to depend on deepening the financialisation of the economy. By showing how the hybrid nature of ECB agency and the governance practices associated with it have reinforced this mutual dependence both before and (especially) since the financial crisis, my account offers an endogenous explanation of the financialisation-ECB empowerment nexus. Moreover, this perspective is able to resolve the puzzle of an institution generally considered as the “pinnacle of [economic] orthodoxy” (Jabko 2010: 320)²²⁸ embracing interventionism to the point where its policies can reasonably be described as a form of central planning: For albeit a mode of macroeconomic governance fundamentally incompatible with the ideology of neo-liberalism, the channeling of the state’s economic agency into a central-bank led attempt to control long-term interest rates is consistent with the nexus between central-bank centric governability and a financialised economy.

It was this nexus that I alluded to in the introduction when saying that it was not by coincidence that the diagnosis of a “finance-led growth regime” (Boyer 2000) was followed by the diagnosis of a “central bank-led capitalism” (Bowman et al. 2013). The present study has revealed the mechanisms through which the two have become inextricably intertwined, and this conclusion has argued that financialisation and the limitation of economic state agency to monetary governance have become locked into not only the ideational superstructure, but the very fabric of the euro area economy. At least in part, this lock-in effect can be attributed to the performativity of a specific *practice of governance*. By focusing on this practice, the present work has produced a

²²⁸. Jabko uses this phrase to describe a view held by other commentators, rather than by himself.

history not of “economics”, as in Callon’s phrase quoted above, but of monetary governance. Yet this difference notwithstanding, my study clearly “shows up the mechanisms through which the strongest – that is, the best equipped – agencies become stronger by performing the very world in which they can thrive” (Callon 2007: 347).²²⁹

Arguably, the financial crisis and the ensuing period of recession and record unemployment have awoken many voters and citizens to the fact that they live in a world in which they are not among the thriving ‘best equipped’. While the manifestations of this discontent in the form popular protest and electoral shifts towards extreme ends of the political spectrum lie beyond the scope of this study, manifestations of monetary discontent do not. As argued by Orléan, the true purpose of the institutions of the gold standard and of its institutional reincarnation, central bank independence, has never been to protect money from the state, but to “silence” and “neutralise” it (Orléan 2014: 160-161). Yet as evident in the case of the TARGET2 controversy, the ECB has failed to prevent money from “speaking”. Chapter five showed the Bank of England to have made a similar experience, and it is in this sense that we have to read Mervyn King’s (2012b: 3) regrets over having failed to realise his “long-held ambition of being boring”. My analysis has shown silent money and boring central bankers to have been key elements in the performance of monetary trust in the euro area, including trust in the monetary authority.

What, then, will be the prospects for the future? This study having placed considerable argumentative weight on the idea that prediction is difficult, especially when it

²²⁹ For studies pursuing a similar approach in tracing the performance of worlds in which the authors and protagonists of the theories and practices that are being performed can ‘thrive’, see MacKenzie (2006) on financial derivatives and Watson (2007) on international capital mobility.

is about the future, caution in this regard seems advisable. And indeed, the effects of the recent empowerment of the ECB on monetary governability in the euro area are ambiguous. There can be little doubt that in the *short run*, this empowerment has been essential to maintain a minimum degree of governability in the face of what Ben Bernanke, as first revealed in August 2014, has described as “the worst financial crisis in global history, including the Great Depression” (Real Time Economics 2014a; cf. Salines et al. 2012; Braun 2013; Dyson 2013). In the *long run*, however, the stability of the central-bank centric governability paradigm will depend on two conditions, the prospects for which highly uncertain. On the one hand, there is the question of the reversibility of the recent expansion of the financial and the communicative apparatuses, both of which show signs of overreach. Will the ECB be able to scale back its involvement in the money market, its forward guidance, and any potential future asset purchases? Or are expanded balance sheets and extensive forward guidance in the process of becoming permanent features of a ‘new normal’ in which central bank planning is necessary to support a financialised economy vulnerable to every jitter of the uncertain futures upon which it is built? On the other hand, there is the question of whether the recent expansion of the financial and the communicative apparatuses can be accommodated within the ideological apparatus of monetary trust. While the ECB-centric architecture of EMU was built on the implicit assumption that the euro would be a “mute currency”, the recent metamorphosis of the ECB from a monetary policy rule into a central bank has prompted it to speak, and to do so not in the “language of economics” but in the “idiom of sovereignty” (Orléan 2014: 160). Under these conditions, the sustainability of the central-bank centric governability paradigm of the euro

area will depend, to a significant extent, on the performative power of no-longer-boring central bankers to make the euro speak the language of economics again.

Appendix 1: List of Interviews

Central Banks

- CB Interview 1: Otmar Issing, ECB, Chief Economist (retired), 1 July 2013, Frankfurt.
- CB Interview 2: Senior economist, Central Bank of Ireland, Monetary Policy Division, 20 June 2013, Dublin.
- CB Interview 3: Senior economist, Central Bank of Ireland, Irish Economic Analysis, 27 June 2013, Dublin.
- CB Interview 4: Senior economist (retired), Central Bank of Ireland, Head of Monetary Policy Division, 27 June 2013, Dublin.
- CB Interview 5: Senior Economist, ECB, DG Economics, 11 March 2013, Frankfurt.
- CB Interview 6: Senior Adviser, ECB, DG Economics, 11 March 2013, Frankfurt.
- CB Interview 7: Senior Economist, ECB Monetary Policy Strategy Division, Directorate General Economics, 7 May 2013, Frankfurt.
- CB Interview 8: Market Operations, ECB Money Market & Liquidity Division, 1 July 2013, Frankfurt.
- CB Interview 9: Senior Manager, ECB Press and Information Division, DG Communications and Language Services, 4 September 2013, Frankfurt.
- CB Interview 10: Principal Economist, ECB Market Operations Analysis, DG Market Operations, 5 September 2013, Frankfurt.
- CB Interview 11: Principal Economist, Bundesbank, Monetary Policy Implementation and Instruments, 5 September 2013, Frankfurt.

Ireland

- Marie Sherlock (SIPTU, Senior Economist), 6 June 2013, Dublin.
- Fergal Feeney (IBRC, Head of Asset Recovery), 10 June 2013, London.
- Michael Taft (UNITE, Chief Economist), 12 June 2013, Dublin.
- Fergal O'Brien (IBEC, Chief Economist), 14 June 2013, Dublin.
- Oliver Mangan (AIB, Chief Economist), 17 June 2013, Dublin.
- David Duffy (ESRI, Senior Researcher), 17 June 2013, Dublin.
- David Croughan (IBEC, Chief Economist), 24 June 2013, Dublin.
- David Murphy (RTE, Business Editor), 24 June 2013, Dublin.
- Paul Sweeney (ICTU, Chief Economist), 25 June 2013, Dublin.

Germany

- Interview 10 (DekaBank, ECB watcher), 6 May 2013, Frankfurt.
- Interview 11 (DekaBank, money market trader), 7 May 2013, Frankfurt.

Hartmut Mertens (Investitionsbank Berlin, Chief Economist), 26 July 2013, Berlin.
Reinhardt Dombre (Deutscher Gewerkschaftsbund, Chief Economist, retired), 1 August 2013, telephone interview.
Dr. Reinhard Kudiß (Bund Deutscher Industrie, Economist), 1 August 2013, Berlin.
Uwe Dürkop (Landesbank Berlin, Chief Economist), 13 August 2013, Berlin.
Florian Moritz (Deutscher Gewerkschaftsbund, Economist), 14 August 2013, Berlin.
Interview 17 (Ver.di, Chief Economist), 19 August 2013, Berlin.
Dr. Oliver Perschau (Bundesvereinigung der Deutschen Arbeitgeberverbände, Chief Economist), 19 July 2013, Berlin.
Interview 19 (Kirchliche Zusatzversorgungskasse Rheinland-Westfalen), 26 August 2013, telephone interview.
Interview 20 (Assenagon Asset Management, Chief Economist), Munich, 26 August 2013, Munich.
Dr. Klaus Wohlrabe (ifo Institute, ifo Business Climate Index, Researcher), 28 August 2013, Munich.
Dirk Meyer, (Bundesarbeitgeberverband Chemie, Chief Economist), 2 September 2013, telephone interview.
Christian Fuhrmann (Evangelische Zusatzversorgungskasse), 3 September 2013, telephone interview.
Interview 24 (Deutsche Bank, ECB Watcher), Frankfurt, 4 September 2013, Frankfurt.
Interview 25 (Commerzbank, ECB Watcher), Frankfurt, 4 September 2013, Frankfurt.
Interview 26 (Deutsche Bank, Senior Economic Adviser), Frankfurt, 5 September 2013, Frankfurt.
Interview 27 (Allianz, Chief Economist), 26 September 2013, telephone interview.

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