# THE CHANGING ROLE OF THE BANK OF ENGLAND: 2006-2015

By

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# ABSTRACT

The financial crisis of 2007–2009 triggered a global response and a drastic transformation in central banking. This study maps out these transformations in the British context through a detailed analysis of the Bank of England and its changing role in the British political and economic landscape from 2006 to 2015. In doing so, this thesis makes an original contribution both through a clear and cohesive account of the changing role of the Bank of England since the financial crisis and, in order to develop this cohesive account, a novel historical materialist approach to central banks as key to the production and reproduction of money as credit in capitalism. Thus, in contrast to a fractured literature on the different aspects of the Bank of England's changing role since the financial crisis, this thesis provides a detailed unified account by situating the Bank of England within the broader problems and contradictions of money in capitalism. The subsequent account of the changing role of the Bank of England thus traces the changing role of the Bank of England as it faced a series of crises of money: first as credit, then as means of exchange and finally as capital. Process shaped and shaped by the institutional and political economy of "operational independence", as tensions emerged with the British State over the direction of monetary, regulatory and fiscal policy. The policies subsequently adopted saw the Bank of England transition from a "narrow" detached central bank to one directly engaged in the discretionary management and regulation of both finance and the economy.

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# DEDICATION

*For my mother and father*

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# List of Abbreviations

| | |
|---|---|
| ABS | Asset Backed Security |
| CBI | Central Bank Independence |
| CDO | Collateralised Debt Obligation |
| CDS | Credit Default Swap |
| CET1 | Common Equity Tier 1 Capital |
| CPI | Consumer Price Index |
| CTRF | Contingent Term Repo Facility |
| CRD | Capital Requirements Directive |
| DMO | Debt Management Office |
| DWF | Discount Window Facility |
| ECTR | Extended Collateral Term Repo Facility |
| ELA | Emergency Liquidity Assistance |
| ELTR | Extended Collateral Long-Term Repo |
| FCA | Financial Conduct Authority |
| FLS | Funding for Lending Scheme |
| FPC | Financial Policy Committee |
| FSA | Financial Services Authority |
| GFC | Global Financial Crisis |
| HBOS | Halifax Bank of Scotland |

| | |
|---|---|
| ICB | Independent Commission on Banking |
| ILTR | Indexed Long-Term Repo |
| IPE | International Political Economy |
| LTI | Loan to Income |
| MBS | Mortgage Backed Security |
| MMLR | Market Maker of Last Resort |
| MPC | Monetary Policy Committee |
| NLGS | National Loan Guarantee Scheme |
| PRA | Prudential Regulation Authority |
| RBS | Royal Bank of Scotland |
| RPI | Retail Price Index |
| RWA | Risk Weighted Assets |
| SLS | Special Liquidity Scheme |
| SMF | Sterling Monetary Framework |
| SONIA | Sterling Overnight Index Average |
| T1 | Tier 1 Capital |
| T2 | Tier 2 Capital |
| TPA | Tripartite Authorities |

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# I. Introduction

The global financial crisis [GFC] placed the Bank of England into a state of flux. Having received "operational independence" a decade earlier, the Bank of England faced the first bank run in 150 years in September 2007 and then the failure of another five banks a year later. These events heralded the beginning of a series of crises for British finance and the British economy, as banks were nationalised, a protracted recession took hold and the economy continues to stagnate under a burden of high and rising private indebtedness despite a decade of austerity.

Faced with these challenges, it is not surprising that the 2006–2015 period was one of radical policy experimentation and development for the Bank of England. It had established a new streamlined model of money market management in 2006, but the financial crisis of 2007–08 necessitated its almost complete abandonment. The pre-crisis model of the Bank of England as a "narrow" central bank focussed on a single policy tool — the base rate — aimed at meeting a single target — consumer price inflation — has been replaced by an increasingly "wide" central bank. The Bank of England is now responsible for economic management through "exceptional monetary policy" and credit

subsidies, as well as the supervision and macroprudential regulation of the financial system alongside its original mandate of price stability.

Yet the literature is relatively ambiguous on how to understand this transformation. The political science literature has focussed largely on the role of these policies as part of broader state strategies first to stem the financial crisis (Gamble, 2010; Hodson & Mabbett, 2009; Quaglia, 2009) and then to resuscitate the Anglo-American credit-based growth model (Bell & Hindmoor, 2015; Crouch, 2011; Green & Lavery, 2015; Hay, 2013; Streeck, 2014). Meanwhile, the central banking literature has conceptualised these developments as technical responses to financial problems that have triggered political economy questions of distribution, accountability and independence (Borio, 2014; Dow, 2017; Gabor, 2016; Gabor & Ban, 2016; Goodhart, 2011). Furthermore, these accounts tend to be piecemeal, focussing on one or a subset of changes and their implications rather than the changing role of the Bank of England as a whole. As a consequence, these approaches have underestimated the distinctiveness of the political economy of central banks.

In contrast, this thesis makes the case for understanding the Bank of England first and foremost as a monetary authority. As such, it faces a specific set of constraints and problems due to its relationship to the production and reproduction of money in capitalism. In response, the Bank of England has developed and adopted strategies to mediate the contradictions of money as credit. In 2006–2015 this involved abandoning the pre-crisis strategy of "market discipline", which sought to curb financial excess through the threat of bank failures. As the events of 2008 risked the entirety of the credit structure, market discipline ceased to be viable and the Bank of England was forced to act or risk an existential crisis of money. The subsequent reforms of "exceptional monetary policy" and

the move to macroprudential regulation are subsequently seen as the development of a new money management strategy based on discretionary market and regulatory intervention. Thus, in order to understand the changing role of the Bank of England, we need also to understand the crisis as a monetary crisis, which came to threaten the production and reproduction of money as credit, a problem distinct from, but connected to, the political problems faced by state actors.

This thesis seeks to make two contributions. First, it provides a cohesive account of the changing role of the Bank of England from 2006 to 2015, developing its changing position both within state structures and within financial markets. In doing so, it provides a second, theoretical, contribution to the study of central banks. Drawing on a historical materialist approach to the study of money and credit, this thesis develops a revised approach to the study of central banks as monetary authorities; whose existence is tied to the production and reproduction of money as credit, which is placed in contrast to the political needs of the state. This then enables a reading of the 2006–2015 period as one of strategy development at the Bank of England in relation to, rather than as simply part of, broader state strategies. As such, it seeks to provide some clarity to the existing literatures on the Bank of England, by arguing that we need both to disaggregate the state *and* to understand the development of the Bank of England as political responses to the internal crises of the credit structure and capital accumulation. Or in more straightforward terms, the political science literature would benefit from understanding the Bank of England first as a central bank and then as a state actor. Meanwhile, the central banking literature would benefit from situating the Bank of England's policy developments within the broader political economy of British capitalism.

This thesis serves as a 'heuristic case study' (Eckstein, 1975, p. 104) in that its primary aim is to provide a clear, theoretically rich and cohesive account of the changing role of the Bank of England from 2006 to 2015. Drawing on an extensive analysis of Bank of England policy documents and fifteen elite interviews with senior policy makers at the Bank of England and the Treasury, this thesis maps the changing role of the Bank of England, in terms of both its changing money management strategy and its changing relationship with the British state and the banking sector. This is an account which is tied together through a historical materialist analysis of the Bank of England as a central bank, a monetary authority premised on the production of money as credit. This is then situated within the broader British state system in the early 21st century. Thus, this thesis posits a "central bank problem" that underpins the changing role of the Bank of England as it responds to successive crises of money. In doing so, it reveals both the importance of central banks as strategic actors facing their own unique problems, and the limitations of central bank action to overcome them.

## I.i. Central Banks and the Financial Crisis

The global financial crisis placed central banks across the world in a state of flux. Since the 1980s central banking had increasingly become a narrow practice of targeting price stability though the use of a single short-term monetary instrument — normally the overnight "repo" rate [1] — and communications strategies (Begg, 2009). This was complemented by a limited lender of last resort function, where central banks offered to

[1] Repurchase Agreement — a form of loan where an asset is sold with the explicit agreement that it will be repurchased at a set future date at a set price. (See Gabor, 2016, for a full account.)

provide institutional-level support to banks facing liquidity problems in crisis (Mehrling, 2011). Both of these roles were also conducted under "operational independence" from national governments who, in an attempt to maintain credibility with increasing global financial markets, had relinquished their ability to interfere in monetary affairs (Maxfield, 1997; McNamara, 2002; Siklos, 2002).

The financial crisis, however, shook the 'foundations of the deceptively comfortable central banking world' (Borio, 2014, p. 191). Central banks globally had played a key role in stabilising financial markets and stemming the recession (Borio, 2014; McDowell, 2012; Nesvetailova, 2010; Trichet, 2010). This, however, involved the abandonment of the narrow view as central bankers resorted to "exceptional" monetary policy and market interventions to halt the downwards spiral (Gabor, 2014; Gabor & Ban, 2016; Schwartz, 2015). Furthermore, the subsequent programme of reregulation saw a pattern of central banks being assigned as the independent "macroprudential" regulators (Baker, 2013; Lombardi & Moschella, 2016).

For the Bank of England this meant a sharp and pronounced break. Having established its new money market strategy of single instrument intervention and market discipline in early 2006 (Bank of England, 2006), the crisis saw it first attempt to enforce this strategy with the failure of Northern Rock in 2007 before abandoning it in the aftermath of the Lehman Brothers collapse. In the subsequent years of recession, European Sovereign Debt Crisis and slow growth, the Bank of England continued to innovate and develop new polices, each taking a step further away from the 2006 strategy. It developed a role as systemic liquidity insurer and 'Market Maker of Last Resort' (Bank of England, 2015b, p. 6). It absorbed the responsibility for both micro and macro prudential regulation. Through the Asset Purchase Facility and the Funding for Lending

Scheme, it now actively shapes asset markets and lending practices. These are reforms which, while still being adapted and modified, had become solidified by the end of 2015 — and are now shaping the response to "Brexit".

The developments that mark this transformation were to a certain extent ad hoc and pragmatic responses to a rapidly changing financial and economic environment. The steady expansion of collateral accepted in liquidity operations and the development of liquidity programmes served to stem contagion between banks and non-banks by securing market liquidity (Fisher, 2010; 2012; see also Mehrling, 2011). Meanwhile, the expansion of "exceptional" monetary policy served as an attempt to restart lending to the broader economy and stimulate activity and stem recession (Bowman et al., 2013; Ertürk, 2014; Joyce et. al., 2013). The development of macroprudential regulation in turn was a response to the need for the systemic management of risk and finance (Baker, 2013). All of these developments in turn raise important questions about the ability of the Bank of England to operate independently of the state, as collateral and monetary policy are increasingly based on the value and stability of state debt (Borio, 2014; Dow, 2014; Gabor, 2014) and the ability to regulate rests on acts of the legislature (Goodhart, 2011).

At the same time, these reforms raise questions about the ability of the state to act independently of the Bank of England. The initial period of crisis management in the UK was characterised by conflict between the Bank of England and the British State over the appropriate provision of liquidity (Darling, 2011). The switch to monetary activism formed a key part of the 'proto-Keynesian moment' in 2009 (Hay, 2013, p. 25). This was a policy change that then formed a cornerstone of the coalition government's growth strategy as it sought to substitute monetary for fiscal activism (Green & Lavery, 2015). Meanwhile, the abolition of the Financial Services Authority was the result of the

Conservative Party, and to a lesser extent the Bank of England, blaming the crisis on the regulators, allowing the Bank of England to reabsorb this role (Johal et. al., 2012). However, the implications of these developments for an understanding of the relationship between the Bank of England and the British State remain undeveloped by the political science literature.

## The Puzzle

The changing role of the Bank of England, which is characterised by both the technical needs of the financial system and the political economy implications of changes in monetary strategy, thus poses something of a puzzle, which has yet to be fully explored. The overarching focus of this thesis is thus to answer the question:

> **Q:** How did the role of the Bank of England change from 2006 to 2015?

*How* implies two connected components to any answer. Firstly, there is the question of degree and condition — what changed and to what degree? This implies a process of mapping the changing role of the Bank of England, its policy developments and their interconnections and their connections with other events, actors and circumstances. *How* also implies a question of process and cause — why did these changes happen? This implies a process of theorisation and explanation, which ties together the descriptive map into a cohesive narrative with explanatory power. This thesis seeks to make two contributions [C1 & 2]:

> **C1:** To provide a cohesive and clear account of the changing role of the bank of England from 2006 to 2015.

**C2:** To provide a conceptualisation of the Bank of England which can provide insight to these changes.

These imply two further subordinate research questions to account for both the structural and the political problems which framed the Bank of England's policy development:

**Q(a):** What is the relationship between the Bank of England and broader British state structures?

**Q(b):** What is the relationship between the Bank of England and the British financial sector?

While the existing central banking and political science literatures answer each of these questions independently, this project seeks to provide an account that answers them concurrently.

## Methods

In order to answer these questions, this thesis takes the form of a "heuristic" case study, in that it seeks to develop theory through detailed investigation rather than testing or demonstrating an already existing framework (Eckstein, 1975, pp. 104–7). The objective of the theoretical development, however, is not towards a strict generalizable theory. Instead, it is the development of what Thomas (2010) refers to as 'phorenesis' (p. 575) — the development of an understanding of a complex event which is then used to explain the particular with a view towards the general (see also Stake, 1995; Thomas, 2011). Thus, the project takes 2006 as a natural starting point because it marks the launch of the Bank of England's new approach to money market management. Meanwhile, 2015 marks the conclusion of the Bank of England's main policy reforms, with the publication of its

macroprudential strategies (Bank of England, 2014, 2015a, 2015c) and its revised market management strategy (Bank of England, 2015b).

While these are still evolving documents, at the time of writing their core strategic content remains the same and thus 2015 marks the conclusion of the main reforms. This then allows the study to provide a clear account and explanation of the changing role of the Bank of England through the most significant period of its policy development. In order to do so, it draws on three main sets of evidence. The first and most extensive is a review of Bank of England and HM Treasury reports, speeches, minutes and policy documents, which detail the development of Bank of England policy throughout the period. These are extensive and detailed, as the Bank of England, and central banks more generally, use policy transparency both as a means of maintaining legitimacy and as a means of maintaining market stability (Jabko, 2009).

The second type of evidence is the use of elite interviews to supplement the analysis of these documents, as they are constructed to achieve specific effects[2], which may differ from the reality of decision making (see Webb & Webb, 1975, pp. 100–112). To this end, fifteen interviews were conducted in 2016 and 2017 with senior officials and ministers at the British Treasury (4), the Financial Services Authority (2) and the Bank of England (10).[3] These served to confirm, reject and elaborate on the understanding developed from the publicly available documentation. Economic datasets were also employed to provide context to, and corroborate some parts of, the narrative developed

[2] Often to intentionally shape the actions of market actors (Jabko, 2009) or shape the interpretation of policy decisions (Morris, 2016)

[3] Some of the people interviewed had overlapping or two relevant positions — a complete list can be found in Appendix A.

through the documentary analysis. This process of 'triangulation' (Stake, 1995, p. 45) was rounded off through the use of political memoirs of key actors in the New Labour government (Balls, 2016; Brown, 2010; Darling, 2011) and the process of coalition formation (Laws, 2010; Wilson, 2010). These served to provide the 'inside story' of events from the perspectives of key actors (Gamble, 2002, p. 150). Finally, journalistic accounts were also consulted (Conaghan, 2012; Irwin, 2013, alongside the *Financial Times*, *The Guardian* and *The Telegraph*) to locate any potential oversights and the broader public interpretation of events.

A stylised path of investigation is set out in Figure 1. Due to the large number and size of potential documents to be analysed, this study has adopted a top-down approach to document selection. It began with a detailed reading of documents that provided the most general accounts of the 2006–2015 period — the Bank of England's annual reports and the memoirs of relevant actors. These were then used to identify key events, policies and themes which formed an initial "map" of the Bank of England's changing role from 2006 to 2015. After this the more detailed Inflation and Financial Stability Reports of the Bank of England were read to further develop this "map" and identify further key events, policies and themes.

This more detailed map was then used to identify the relevant "low-level" documents that were then reviewed. Market notices and the Sterling Monetary Framework documents were identified easily and read in full to provide a clear account of exactly what the Bank of England operations did, in contrast to most existing accounts which rely on secondary accounts of these policies. In a similar manner, the minutes and records of the Monetary and Financial Policy Committees as well as the Minutes of the

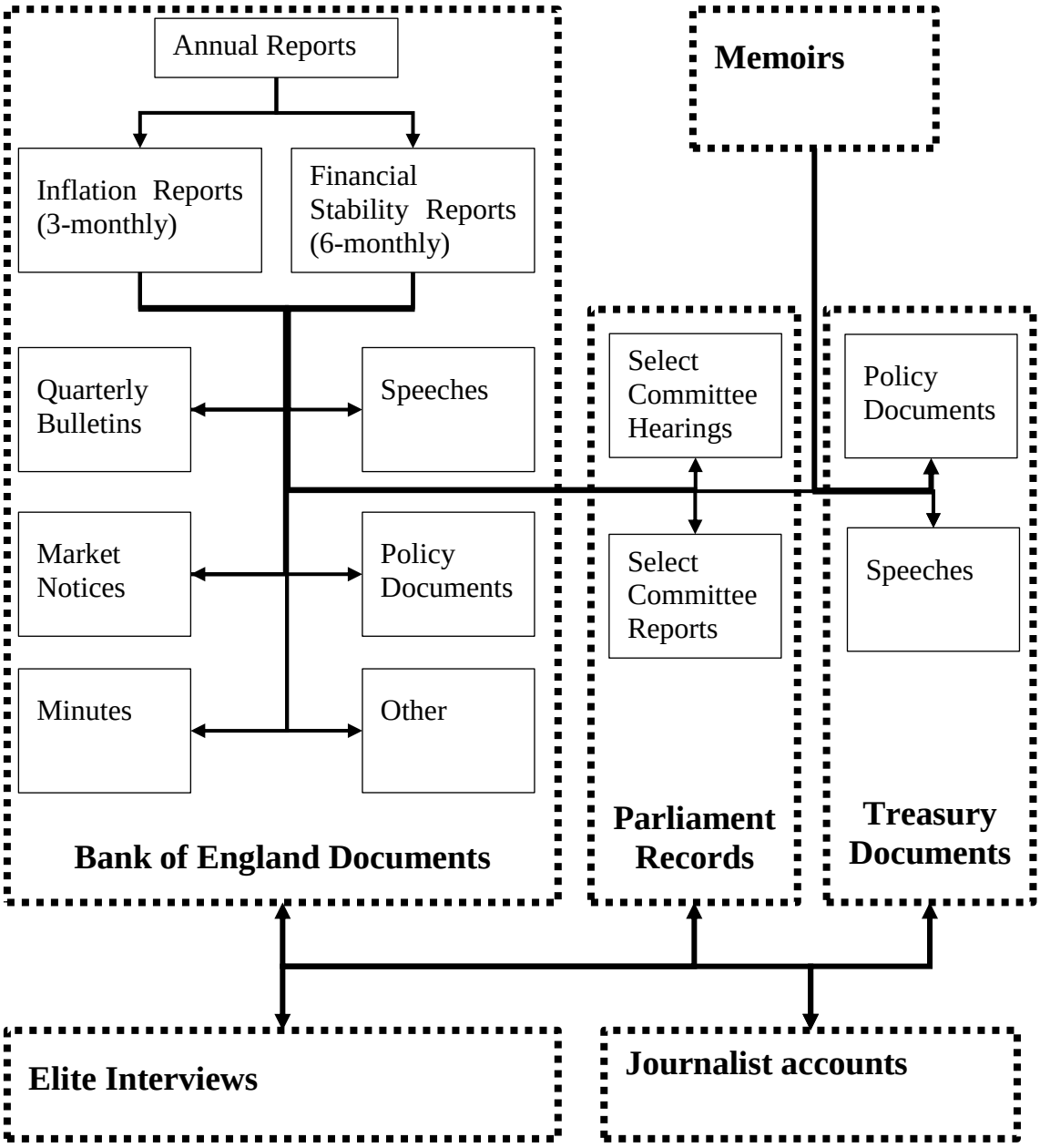



*Figure 1. Stylised path of investigation*

Court of the Bank of England from 2007 to 2009 were read in full to trace the development of policy stances and debates within the Bank of England.

Speeches and Treasury Select Committee hearings were also identified as key moments where the Bank of England and other key actors would articulate policy stances. They differed, however, in their content and focus. While speeches were "set pieces" where various senior officials would set out their views on a set of issues, the Select

Committee hearings were much less structured. Thus, while speeches served to elaborate on official stances on various points of policy, Select Committee hearings provided more insight into internal debates between the Bank of England and the Treasury, which were pointedly absent from speeches, due to the conventions over policy domains. However, due to the range of issues covered and the number of speeches and hearings, these were not all read in full. Instead they, alongside the quarterly bulletins, were imported into the database software NVIVO and then coded through keyword searches identified from other sources. The speeches and hearings identified were then read to identify both stances and the relationships between issues.

In order to situate the Bank of England within the broader political economy landscape, parliamentary enquiries and government (predominantly Treasury) policy documents were also identified and read. These served to situate the Bank of England's shifting strategies within the context of state strategies and political pressures. Newspaper websites were then also consulted where appropriate to gain broader perspective as to how certain debates, policies and events were being interpreted.

The documents themselves were accessed from the official websites of the relevant institutions[4]. Where original policy documents had been withdrawn or modified, the National Archives *UK Government Web Archive*[5] was consulted to extract the

[4] Bank of England: www.bankofengland.co.uk
HM Treasury: www.HM-Treasury.gov.uk
FSA: www.FSA.gov.uk
UK Parliament: www.parliament.uk

[5] www.nationalarchives.gov.uk/webarchive/

originals where possible. All documents utilised by this thesis are thus in the public domain.

The issue presented by this body of evidence, however, is that they were all constructed for public consumption[6] and apart from the market notices and policy documents form secondary rather than primary sources (Burnham et. al., 2008, pp. 187–190). This raised problems of formal accounts of events potentially differing from those that transpired and thus invoked a problem of descriptive inference from potentially flawed evidence (see Burnham et. al. 2008, pp. 172-173), especially in the case of the Annual, Inflation and Financial Stability reports which are highly crafted formal accounts of Bank of England assessments of events and policy developments — targeted to both inform and invoke responses from other actors as part of a strategy of steering markets through "transparency" of decision making (see Jabko, 2009).

To address this potential problem for analysis, the documents utilised have been situated as being limited in their ability to inform, each with more or less salience on different issues. Thus, generally speaking, technical policy documents have been used for accounts of how schemes and policies worked; reports, complemented by speeches and hearings, for the analysis of key concerns; speeches and hearings and memoirs for the development of policy stances and debates.

Finally, once a clear map of events had been established, semi-structured interviews were conducted with a range of senior policy makers. Appropriate participants

[6] Other than the Court Minutes of 2007–2009, which were written for an internal audience and then made public in 2015 at the request of a Treasury Select Committee inquiry

and questions were identified from the initial document review (Stedward, 1997; Webb & Webb, 1975, p. 136) and were contacted by post and email to secure interviews. This ensured that the interview was conducted on the basis of a sound knowledge of the topics discussed and thus minimised risks of misunderstanding or irrelevant questioning (Burnham et. al. 2008, pp. 238–243). The interviews themselves were either recorded or subject to extensive note taking, with the permission of the participant. Participants were also given the opportunity to decide what their attribution would be and several chose to be named. This has been honoured in the account that follows.

The interviews themselves served both to triangulate with the accounts of events inferred from the documentary analysis and to provide further insights and perspectives into the relevance of key events and developments (Arksey & Knight, 1999, pp. 32-35). They were structured first to invite open accounts of policy development and issues with subsequent questions and then, where appropriate, to give alternative accounts to those involved for assessment and critique. As a result, several participants pointed to Alistair Darling's memoirs as a highly accurate account of events, while others highlighted events and documents previously missed in the initial document review. Again, the accounts provided in interview were treated with some scepticism as partial and one-sided, if less constructed, accounts (Berry, 2002, p. 680) of events that occurred up to a decade earlier. However, their inclusion served to pull together the initial analysis into a coherent account, by shedding light on the dynamics behind the construction of the documents that serve as the core of the evidence presented in this thesis.

While this process, like almost all research projects, is based on a sample of the available evidence (Burnham et. al., 2008, p.177), the approach adopted in this thesis should minimise risks of inaccuracy. The use of snowballing to identify the areas of

interest allowed the project to grow organically across sources and allowed for updating of the "map", as new evidence came to light, and a critical assessment of the relevance of potential sources. The corroboration through elite interviews and cross referring of documents then served to limit mistakes or misinterpretations. Finally, the focus in the thesis on the structural features of policy means that the core of the analysis rests on readily available information.

**The Process of Abstraction/Deabstraction**

Having established the practical path of investigation, it is also worth detailing the relationship between this array of evidence and the development and deployment of theory — the process of abstraction and deabstraction. In order to overcome the separation of the political and technical components of the changing role of the Bank of England, this study utilises a historical materialist approach. This focusses explicitly on the interconnections between the historical and material practices of finance and the economy and the strategies adopted by states and other actors. This approach bridges the relationship between this wide array of often technical evidence and the theoretical explanation offered — that the Bank of England faces a specific problem as a central bank and that its changing role has been an attempt to mediate this problem.

In particular, the historical materialist approach adopted here utilises the notion of 'internal relations' (Ollman, 2015, p. 7): that we cannot seek to understand one part of social reality in isolation, or as objects which evoke causes and effects to one another in a manner similar to a Newton's cradle. Instead, social reality needs to be understood as a series of co-constitutive parts which relate to each other not only internally (as components of each other) but also as part of a greater whole (Brien, 2015). This means

that the categories and events under investigation are understood as social relations that are both the result of and the drivers of human action (Rubin, 1973, p.22). But as relations they are also *open*, in that they are contested and constituted through struggle as contradictory social forms or 'modes of existence' (Bonefeld, et. al., 1992, p. xv; see also Burnham, 1994).

The process of analysis involves a process of abstraction and deabstraction. We begin with the historically specific and concrete events of 2006–2015 and then move through layers of abstraction in order to understand their underlying logics and relations to broader social processes: namely, the conditions of capitalism as a 'mode of production' characterised by the separation of labour from the means of production, and production for exchange (Marx, 1964) — the circuit M–C–M′, money for goods for more money (Marx, 1974, p. 153). By developing the forms under analysis from this circuit as the foundation of capitalist society, they are seen as '"nodes" or "moments" in the global flow of capital', as open 'forms' which constitute the contested reality of capitalism (Burnham, 2006, p. 75). These forms are then used through a process of deabstraction to explain and account for the historically concrete subject at hand (Ollman, 2003) — the changing role of the Bank of England. In terms of methodological investigation, then, we both begin and end with the concrete while never losing sight of it (Marx, 1973, p.101).

In more specific terms this approach, and its relevance to an understanding of the Bank of England's changing role, are based on the foundational problems posed by the production and reproduction of money as credit in capitalism. By developing these social forms of "money", "monetary authority", and "central bank" and the specific contradictions entailed in their existence, it is then possible to understand the underlying logics and laws of their existence — i.e. what it is that central banks must do and continue

to do in order to be central banks (see Ollman, 2003, pp. 27–29). Importantly, the claim here is not that structural features determine the strategies formed or the actions taken, but rather they determine 'the limits beyond which [institutional] autonomy cannot with safety be stretched' and 'the questions which arise for executive decision.' (Thompson, 1965, p. 322). In short, they form contradictory problems and puzzles which policy makers must develop strategies to manage and mediate. Thus the changing role of the Bank of England from 2006 to 2015 is explained as a result of the need to mediate the contradictions and needs of money as credit within the political economy of British capitalism.

**Second Order Benefits**

While the findings and contributions of this thesis are limited to the Bank of England during a ten-year period, it is worth noting some potential second order benefits of the project design. Firstly, the nature of the 2006–2015 period as one of crisis and response forms what Yin (2009) refers to as an 'extreme' case. Crisis significantly reduces the space for compromise between competing social forces, and thus underlying tensions and problems become more apparent, increasing the potential for transferable conclusions.

Secondly, the Bank of England is what Flyvbjerg (2006) refers to as a "paradigmatic" case of central banks more generally. Of the three global reserve currency issuers (the European Central Bank, the US Federal Reserve and the Bank of England) that have had to manage the crisis, the Bank of England is the least exceptional in that it is neither the global liquidity provider (the Fed) nor a supranational institution (the ECB). Any abstraction or theorisation developed though a study of the Bank of England is less likely to arise from anomalous conditions of power in relation to financial markets (the

Fed) or national governments (the ECB) while also not being overly constrained by the actions of other monetary authorities (non-reserve issuers).

A smaller but more concrete second order benefit is the development of the initial crisis response paradigm of bank liquidity and state recapitalisation which was adopted across Europe (Quaglia, 2009). By providing a more cohesive account of this development and its implications, this thesis also has potential to shine light on the developments within Europe more generally and their implications for the broader political economy of Europe. To reiterate, however, these potential benefits are not the focus of this study, but serve to highlight its potential broader applications.

## I.ii. Summary of Argument

The result of this study was to isolate three major changes within the Bank of England. First, the Bank of England transitioned from a detached "narrow" and "shallow" approach to central banking and money management, where market forces predominated towards an increasingly "wide" and "deep" approach to central banking. The Bank of England's money market strategy now explicitly sets bounds on market forces, as the Bank of England's Markets Division stands ready to lend against any collateral at a set price and actively manages spreads between different asset classes. This coincides with "exceptional monetary policy", whereby the Bank of England seeks to actively manage effective demand and subsidise asset values and lending practices.

Second, these developments mean that it is now questionable whether or not the Bank of England is actually "operationally independent". The 1997 reforms were premised on the "narrow" central banking of one instrument and one target: the deepening of the Bank's collateral policy and the increasingly important role of sovereign debt in its

exceptional monetary policy. Similarly, the engagement in monetary activism saw the chancellorship of George Osborne seek to substitute monetary for fiscal activism, which means the Bank of England monetary operations are increasingly expected to complement the fiscal strategy. The development of macroprudential regulation and the absorption of institutional supervision now also see the Bank of England dependent on government legislative agendas for a key component of its policy tools. Thus, while the Bank of England remains an independent and relatively 'depoliticised' (Burnham 2001) decision maker, its operations are increasingly dependent upon state action.

The explanation offered by this thesis is that these developments were underpinned by the Bank of England, as a central bank and monetary authority, needed to manage the various contradictions of money. First, it was confronted by a crisis of money as credit, which it sought to overcome through the enforcement of market discipline on Northern Rock as per its narrow strategy, a strategy which ran contra to the government's desire to limit the costs of crisis. However, with the failure of Lehman Brothers, the crisis of money as credit transitioned from a situational crisis of a money (Northern Rock's deposits) to an existential crisis of money as credit. This led the Bank of England to restructure its collateral policy to guarantee market liquidity and begin "Quantitative Easing" to halt the downwards spiral in asset values that threatened banks' balance sheets as a part of a broader government strategy of bank recapitalisation and bailouts.

This initial crisis of money as credit quickly took on the additional form of a crisis of money as circulation. The crisis caused a sudden contraction of credit and a sharp recession as households and firms cut back — money as the store of value predominated. This risked a second crisis as financial assets failed to realise and losses mounted — what

Keynes termed the paradox of thrift. Thus, the Bank of England took part in a strategy of sudden monetary expansion to restart the circuit of capital and restore the ability of money to act as a means of payment and circulation.

These developments, however, left the Bank of England exposed to the state's fiscal strategy and the potential "moral hazard" of financial actors, as it could no longer rely on market discipline to limit potential excess. Thus, the Bank of England developed a strategy which sought to secure the value of sovereign debt by substituting monetary for fiscal activism and attaining influence over the new regulatory regime to stem financial stability concerns. This shift to increased activism on the part of the Bank of England in both regulatory and economic space was quickly seized upon by the coalition government, which sought to externalise the problem of economic growth and financial regulation. The result has seen the Bank of England develop an increasingly activist role — albeit at times begrudgingly — as a part of the broader state strategy of financialised growth.

## I.iii. Outline of Thesis

In keeping with the role of abstraction and deabstraction within this study, this argument is developed at three approximate levels of abstraction: the level of capitalism as a whole, the level of British capitalism in general and the specific level of policy responses and financial markets. None of these levels of abstraction is distinct, but rather the discussion of a general principle found within the lower levels and a more concrete and specific example of higher levels. Thus, each level of abstraction holds true at each other level, and the levels of abstraction outlined here are only general rules and will contain within them moments of higher or lower abstraction.

This thesis begins at the higher level of abstraction of capitalism in general. Chapter two reviews the contemporary literature on central banking both prior to and after the crisis. It makes the argument for a historical materialist approach to the study of central banks — and thus the Bank of England — as the alternative approaches provide "one-sided" analyses. That is to say, they emphasise one aspect of central banking — their role within the state, their role as policy makers or their role as monetary authorities — to the detriment of others. Instead, it is argued that a historical materialist approach — one that begins from the role of central banks as monetary authorities in order to understand their role as policy makers within state structures — overcomes this limitation.

Chapter three remains at this higher level of abstraction and reflects on and updates the orthodox historical materialist approach to central banking. The orthodox approach positions central banks as the "national hoard" of "money proper", which then mediates the tensions between national monetary systems and "world money" (de Brunhoff, 2015; Harvey, 2006; Itoh & Lapavitsas, 1999; Lapavitsas, 2006). This account, however, has limited explanatory power with the case of the Bank of England (or indeed any major central bank) from 2006 to 2015, as "world money" is increasingly constituted as a basket of currencies, as demonstrated by the C-6 swap-line agreed in 2013 (Mehrling, 2016). Instead, this chapter draws on the work of Rubin and the Open Marxist tradition to present an alternative account that focuses on the problem of the production and reproduction of money as credit. This is a problem that contains within it the problem of convertibility between both money forms and denominations. This approach then emphasises the need for the central bank to regulate both the internal contradictions of the credit structure and its relationship to broader economic practices as the driving problem of central banking.

Chapter four moves to the intermediate level of abstraction by using this underlying "central bank problem" to understand the relationship between the Bank of England and the British State in 2006. In doing so, it shows how the 2006 strategy of limited intervention and "market discipline" was in part the logical continuation of the 1997 reforms. Specifically, it shows how the separation of the Bank of England from the banking supervision and government debt functions necessitated a "narrow" approach to central banking with limited engagement with the state.

Chapter five moves to the lowest level of abstraction and how the 2006 strategy as a money management strategy shaped the initial management of the crisis. It shows how the Bank of England sought to enforce market discipline, against the wishes of the state and the FSA, as a logical continuation of its strategy. The resulting policy response, whereby the state became both lender and investor of last resort to the banking sector, was in turn the logical continuation of this strategy, as it isolated the problem within the credit system.

Chapter six remains at this lower level of abstraction by focussing on how the failure of Lehman Brothers triggered two existential crises of money and how this forced the Bank of England to develop a new money management strategy. The first — a crisis of money as credit — saw the Bank of England adopt an increasingly active role in managing both institutional and market liquidity. The second — a crisis of money as means of exchange — saw the Bank of England abandon the disciplinary component of its strategy, as it sought to secure asset prices and reignite lending. These policy shifts occurred as part of broader state attempts to stem the economic crisis, but also exposed the Bank of England to both fiscal and financial risk, as states and markets could use the easy monetary environment to delay necessary restructuring.

The third part of chapter six and the whole of chapter seven return to the intermediate level of abstraction to understand how these policy shifts laid the foundations for the Bank of England's new strategy. This new strategy, however, required increasingly high levels of coordination with other state actors, which sought to reallocate responsibility for economic growth and financial governance onto the Bank of England. Thus, the Bank of England's new strategy of active management of financial markets was a response to both the "central bank problem" and the political economy of the British state.

This thesis then concludes by reflecting on these findings and their implications. By situating the Bank of England in relation to the production of money as credit, this thesis shows how the changing role of the Bank of England has been an attempt to mediate a series of crises of money, an attempt which has seen the Bank of England take on a wide range of new roles and responsibilities while also bringing it into conflict and contestation with the British State. Two tentative additional claims are then made. Firstly, the development of the Bank of England's new strategy leaves it highly exposed in the event of a new crisis. While the Treasury is still largely held responsible for broad economic outcomes, the Bank of England is now responsible for the integrity of the entire financial system. At the same time, its use of monetary activism to drive economic activity, and thus the stability of credit, has left the Bank of England with relatively little policy space in which to respond to significant financial shocks. Secondly, looking forward to future studies of money, credit and central banking, it agrees with Beggs (2016) that the study of money and its management requires a more disaggregated view of the state, which appreciates the different roles that various actors perform and their implications for one another.

# II. Approaches to Central Banking

A consistent political logic underpinned all of the Brown government's attempts to rejuvenate the inter-bank credit system in the first phase of the sub-prime crisis

(Watson, 2009, p. 423)

The central bankers … were a group of bureaucrats who were attempting to serve several conflicting public and private sector interests in an effort to maintain if not enhance their positional power in their domestic political structures

(Kapstein, 1992, pp. 266–267)

[T]he credit crisis revealed flaws in the way central banks have been operating. They need to rebalance, and return to their roots as banks operating within and through the financial system

(Davies & Green, 2010, p. 286)

The Bank of England has undergone significant reforms since the Global Financial Crisis [GFC]. However, the existing literature on Bank of England remains relatively fractured. The bulk of the literature on the crisis itself and the development of monetary policy remains resolutely state centric, simply folding the Bank of England into the rest of the British state. Meanwhile, the literature on financial reforms and re-regulation emphasises the importance of the Bank of England, alongside other central banks, as distinct policy actors within state and intrastate systems and the central bank independence [CBI]

literature from the turn of the century explicitly raises concerns about how central banks may use their new independence to act against state wishes. While at the furthest end of the spectrum the economics and finance literatures continue to see the Bank of England and central banks as essentially components of financial markets whose operations should be cast not in terms of politics and power but solely in terms of efficacy.

In answering the question, 'how should one approach the study of the Bank of England?' there appear to be three different Banks of England one could study. There is the Bank of the IPE and political economy scholars, which works within states as economic managers, operating in tandem with their colleagues in finance ministries towards common ends. Then there is the Bank of the political scientists, especially those orientated towards questions of the Euro and European integration, which sees the Bank as a key member of epistemic communities, a policy expert shaping and directing national and international regulatory debates. In that view it is a critical actor within British state structures but not one necessarily unified towards common goals. Finally, the Bank of the Economists, both 'heterodox' and 'orthodox', is an institution beyond questions of politics, whose actions should be studied in terms of efficacy independent of political concerns.

This chapter argues that these approaches are each deficient in their ability to account for the development of the Bank of England since 2006 and that a critical perspective is required to overcome their limitations. Thus this chapter argues that the mainstream approaches to the study of the Bank of England, and central banks more generally, are limited by their 'one-sidedness'. They emphasise one aspect of the Bank to the detriment of others (see Ollman, 2003). Central banks are, as this thesis argues, complex and multifaceted institutions. They exist both within and outside of state

institutions and are involved in both political and technical, apolitical, aspects of modern finance. This quite understandably poses significant problems in their abstraction and conceptualisation within current affairs.

In short, the challenge taken to the mainstream approaches is that the Political Economy and Political Science approaches largely "black box" the majority of central bank activity in financial markets, instead focussing on "the state" as the primary object of investigation. The questions as to how and why central bank operations might impact the needs and goals of the Bank of England are left largely unconsidered. Instead, the role of the Bank within the broader state response or the contestation of policy by the Bank are considered in terms of state action and political power.

The approach from the field of economics, however, do quite the opposite. They focus on market dynamics and central bank interventions while "black boxing" the political elements of central bank policy and its relationship with the state as external to the problem of monetary policy. This both constructs and relies on a conception of central banks as technical institutions seeking to implement "good" policy. The question of political or democratic pressures is either left unmentioned or given nominal reference.

The challenge being put in this chapter argues that these approaches do provide important insights and thus the question as to how to approach the study of the Bank of England should not be which is the most appropriate insight. But rather how one may draw on their respective insights but without their limitations in a coherent approach and study. The second part of the chapter argues that Critical approaches, being 'directed to the social and political complex as a whole rather than the separate parts' (Cox, 1981, p. 129), potentially offer a more fertile starting point. Initially the work of Paul Langley

(2014) on the discursive construction of the crisis in the US and the UK is considered as an avenue of investigation. Its limitations, however, become quickly apparent as it separates structurally linked issues, only pointing to but not engaging with the underlying structural conditions (see Bieler & Morton, 2008). In short, it is argued that it provides a richer, more embedded and more compelling account, but one which ultimately shares the same deficiencies as the Political Economy and Political Science approaches.

This chapter closes by arguing that a historical materialist approach to the study of the Bank of England is the most fruitful, as it offers not only a material grounding in the practices of central banks in general but also the implications of the crisis. The work of Costas Lapavitsas is considered as an exemplar of the orthodox Marxian approach, which is found to be problematic in its conceptualisation of the central banking problem and the conceptualisation of central bank agency. That being said, the account provided of the Eurozone crisis by Lapavitsas does appear to overcome the limitations of other approaches. Thus this chapter proposes, and this is taken up in chapter three, that by drawing on Rubin and the Open Marxist traditions approaches to money and the state, we should be able to formulate a more grounded and accurate account of the central bank problem.

## II.i. State Agents

The majority of the literature on the responses to the GFC tends to follow the International Political Economy [IPE] lineage of emphasising the dynamics between "state" and financial "markets" (e.g. Cohen, 1998; Eichengreen, 2008; Kirshner, 2000; Schwartz, 2000; Strange, 1998). They range from how different national regimes were able to cope with the financial turmoil (Hardie & Howarth, 2009; Howarth, 2013; Jabko & Massoc,

2012; Quaglia & Royo, 2015) to how different regional (Buckley, et. al., 2012; Donnelly, 2014; Quaglia, 2015) and international regimes (Kirshner, 2014; Lucarelli, 2015), taken as a whole, shaped the outcome. In a similar manner to the previous IPE lineage, these approaches sought to draw out the interconnections between the two and the problems "states" face in resolving the crisis and establishing new regulatory and monetary orders.

The early authorship on the ongoing crisis in the UK utilised this broad state/market schema to analyse how the British state's response was shaped by its preceding policies towards global finance. Gamble (2009a, 2010) emphasises how the UK's historic commitment to an open international economy and the competitiveness of the City of London through neoliberal deregulation limited the political responses available to the "British authorities". In particular, he emphasises how the increasingly financialised economy is dependent not only on the maintenance of City of London as a global financial centre but also on the ready availability of credit to households, small firms and the state to drive consumption (Gamble, 2009a, pp. 459–460; see also Hay, 2013b; Watson, 2013). Hodson and Mabbett (2009) also emphasise that there has been no 'paradigm shift' (p. 1057) in the British state's response to the financial crisis. Although they emphasise the importance of the changes to the Bank of England's operations (pp. 1051–2), this is as part of the relative continuity in broader state strategies. Here the Bank of England's role is situated as part of a 'new Keynesian' strategy where monetary policy operates as a counter-cyclical buffer (p. 1047). While Thain (2009) emphasised how the particularities of the British state, in particular the power of the core executive, facilitated rapid and innovative responses to the crisis. But these responses were also limited by the constrained discretion of the New Labour reforms and a group-

think mentality of the resulting technocratic experts in charge of supervision and monetary operations.

The more recent institutionalist approach of Bell and Hindmoor (2015a, 2015b) provides similar accounts. Again they emphasise how the perceptions of British "policy makers" about the importance of finance, specifically the City of London, to the British economy led to 'light touch' regulation (Bell & Hindmoor, 2015b). While 'market efficiency' narratives and reforms fostering structural changes to financial markets resulted in highly internationalised and highly leveraged operations conducted on large scales but at low profit margins (Bell & Hindmoor, 2015a). Which in turn created a collective action problem as small falls in asset prices prompted collective dumping of assets (Bell & Hindmoor, 2015a). Meanwhile, the policy response by these "policy makers" was initially to preserve the old system of governance to protect the City of London as a competitive financial centre before public discontent and the realisation that there would still be a comparative advantage from re-regulation led to broader reforms (Bell & Hindmoor, 2015b).

Meanwhile, others from a more critical perspective have emphasised how the financial crisis presented a risk to the depoliticised governing strategy of the British state since the 1980s, which sought to 'insulate markets from democratic politics' (Froud et al., 2010, p. 25). This resulted in technocratic forms of governance at the Bank of England and the Financial Services Authority, which ultimately became detached from the financial operations they sought to govern (Engelen et al., 2012). The response of the state, however, was to successfully maintain this depoliticisation through the 'rule of experts', reallocating responsibility for financial stability to the Bank of England and maintaining only 'arm's length control' over the newly nationalised banks (Froud et al.,

2010). It thereby maintained the separation of democratic politics and financial markets but risked a crisis of the British state as it sought to force austerity upon the populace in order to foot the bill for preserving financial markets (Macartney, 2011).

These state/market approaches, while successful in raising the important questions of structural relations between public and private actors in driving both the crisis and its response, are also ultimately limited in their ability to explain them. They assume that the policy responses were the result of collective actions by "the British state" or "policy makers" which were internally consistent. The evidence, however, indicates that this was far from the case. The Bank of England and the Treasury were regularly in conflict over the appropriate course of action and the policies pursued reflect this tension (Brown, 2010; Darling, 2011). Thus, while the British response may have been 'paradigmatic' for the rest of Europe (Quaglia, 2009), it was in its origins a compromise between the Bank of England and the Treasury.

Secondly, this unified approach that has "the state" as its focal point of investigation places the majority of its emphasis on the development of regulatory debates and the content of bailout packages — the actions of political authorities. But in doing so it fails to engage with the equally important changes within money markets and central bank operations. In the UK this has meant radical reforms to how the Bank of England engages with financial markets. This is the more telling deficit in this literature. The focus on the relationships between the political and the market eschews the equally important technical changes to money markets that have occurred, which have sweeping political consequences.

In short, by folding central banks into the state these accounts fail to engage with central banks and central banking in a meaningful way. Yet central banks, such as the Bank of England, both make and manage key liquidity markets, provide both individual and systemic lender of last resort functions and determine the cost and means of funding for finance. By eschewing these operations and their changes in favour of an emphasis on the "political" aspects of financial management, these approaches not only fail to adequately investigate the former as a core aspect of financial management but also how it has impacted and shaped the latter.

## II.ii. Policy Agents

The shortcomings of the state/market approach to the study of the financial crisis and the changing role of the Bank of England are to a certain extent overcome by the political science and pluralist literatures that disaggregate the state: in particular, the debates in the late 1990s and early 2000s over the implications of central bank independence and the more recent works on the development of the new regulatory architecture. These emphasise the potentially divergent preferences of different state actors and how central banks as depoliticised experts are able to influence policy debates. However, this section argues that, by focussing on intrastate relations as political contests over defining problems and allocations of decision making powers rather than as based on embedded structural positions, they resolve one limitation by replacing it with another: namely, the state becomes differentiated but with no deeper analysis of what it is the different parts do.

## Central Bank Independence Debates

Central bank independence [CBI] from political authorities was a trend that swept the world in the 1990s and early 2000s (McNamara, 2002b). Largely justified by economistic accounts of central bank behaviour and the risk of 'inflationary bias' in politicians seeking re-election (Cukierman, 1994) and the legacy of combating inflation from the 1970s and 80s, CBI also formed part of political strategies 'to try to signal their nation's creditworthiness to potential investors' (Maxfield, 1997, p. 5; see also Hall, 2008) while also 'the process of placing at one remove the political character of decision-making' (Burnham, 2001, p. 128) and binding opposition to counter-inflationary strategies (Dellepiane-Avellaneda, 2013).

What this movement also sparked was a debate over the impact of CBI on future decision making and the scope for disagreement between independent central banks and political authorities. In response to arguments based on policy efficacy (Eijffinger & De Haan, 1996) and "output legitimacy" (see Majone, 1996), both Elgie (2002) and McNamara (2002b) raised important questions about how central banks may use this new independence.

McNamara makes the important point that the question of inflation management and how it is achieved is never an apolitical one. In fact:

> While severing the direct institutional ties to elected officials appears to create an apolitical environment for policy making, central banks continue to make policies which have important, identifiable distributional effects and thus remain resolutely political and therefore partisanal institutions. (McNamara, 2002b, p. 53)

Importantly, the delegation of monetary policy to independent central banks for McNamara essentially restricts the number of views represented in decisions that have sweeping effects on society, with a preference for those who hold financial assets (Berman & McNamara, 1999). Equally there remains the issue of 'agency 'slippage'' (p. 55). As Elgie (2002) argues, if the underlying principles for action between the central bank and the government are in alignment, there is, in effect, no issue. However, problems occur when there is mandate drift, either as the legislation enshrining the terms of independence becomes dated, tying governments to previous preferences (Elgie, 2002, pp. 192-4), or as the interpretation of the mandate changes over time (Adolph, 2013). Thus, while Elgie (1998) finds that the level of political accountability post-independence is still relatively high in a historical perspective (compared to pre-nationalisation), its policy scope and freedom to act are potentially higher.

So, while the government may be able to express certain changes in preferences over time through the appointment of new senior staff, in the short run the Bank may still deviate from government preferences. This seems to reflect quite accurately the conflict over crisis management in the UK. Despite the lack of change in government, the crisis of 2007–08 can be seen as a sudden shift in the preferences of the government. It was effectively bound by the independence arrangements it had set in place a decade earlier. The Bank emphasised in its responses to requests for action its mandate for price stability and the lack of any legal mandate for financial stability, referring to the FSA as the authority responsible. One could reflect on the problem of crisis management as essentially one of mandate drift between an operationally independent central bank and its national government.

The deficit of this approach, however, is that it continues to portray central banks and central bankers as passive agents responding (or not) to the desires of the "principal" government. The cause of divergence is seen in terms of legalist frameworks and mandates and the ability of the "principal" — government — to exercise power over the "agent" — central banks — as circumstances change. The question as to whether central banks may possess different preferences to governments independent of their institutional arrangement, and why this may be, is left unasked.

## Central Banks as Policy Experts

A similar problem is found in the more ideationally focussed epistemic community literature. Rather than focus on the institutional separation of agents from principals, the epistemic community approach has sought to situate central banks as powerful knowledge producers (Haas, 1992; Verdun, 1999). Through the development of a competition of ideas, central banks wield significant power as the dominant producers of monetary and financial policy research (McNamara, 2002a) and are able to shape the intersubjective understanding of policy goals and functions (Widmaier, 2007). Thus, independent of their legal position in relation to the state, central banks and bankers have been able to exercise significant influence though their ability to shape policy discourses.

This has been further compounded by what Marcussen (2009) has referred to as a 'scientization' of the financial and monetary discourses in the last twenty years. This process limits the range of those who can contribute to those 'who can master the discourse of science' (ibid., p. 377) and possess the appropriate qualifications and data (Moran & Macartney, 2009), thereby closing the debates to those seen as 'unqualified' and in turn further enhancing the position of central bankers as technical knowledge

producers. This provides some insight into why and how central banks may differ from their national governments in terms of policy preference due to the need to maintain "technical" reputations in discursively managing money markets, and thus adherence to international monetary policy paradigms (Baker, 2006).

This development has also been the subject of significant research at the Centre for Research on Socio-Cultural Change (Engelen et al., 2011; Engelen et al., 2012) who have argued that the crisis itself and the policy response can largely be seen as the continued failure of technical policy paradigms. Specifically that the detachment of political oversight from technical matters of finance allowed a tight policy network to form between financial actors and their regulators (Engelen et al., 2012; see also McPhilemy, 2013). Furthermore, the recasting of the Bank of England as a monetary expert led to the reframing of the Bank's policy discourse to exclude financial stability concerns in favour of monetary analysis (see also Conaghan, 2012; Engelen et al., 2012). This in turn left financial innovation to develop down increasingly complex and leveraged paths as debates became restricted to nominal stability and inflation targets (Engelen et al., 2011).

Equally Epstein and Rhodes (2016) argue that the European Central Bank was able to cast the financial crisis as a necessarily supranational one, whereby it then was able to drive further transfers of powers despite member state resistance. Meanwhile, McPhilemy (2016) presents the case that Eurozone central banks were

> engaged successfully in a 'two-level game' in which their advocacy for a strengthened role in EU-level macro-prudential arrangements simultaneously reinforced their positional power in domestic regulatory arrangements (p. 528)

through their position on key supranational policy committees. Meanwhile, the key international arrangements on capital requirements are still set by the central-bank-only Basel Committee on Banking Supervision (Penikas, 2015).

Within the UK case, the Bank of England has readily sought to use its position as a policy expert to enhance its position within policy networks through a process of "externalisation" — a process of giving briefings, speeches and policy papers on topics of interest (Burnham, 2016). This has increasingly become the case since the financial crisis where the Bank has used key speeches and policy hearings to voice opinions on not just monetary policy development but also fiscal policy and questions of financial regulation. The question remains, however, as to why these differences of opinion may occur — why did the Bank of England feel the need to express opinions on financial regulation and fiscal policy contrasting with those of government officials?

A recurring claim in the literature on central banks as policy actors is that they may suffer from regulatory capture due to their close links with financial actors (e.g. Bowles & White, 1994). Adolph (2013) finds that the career paths of central bankers have significant impact on their policy decisions through the influence of 'shadow principals' in future employers (p. 1). Meanwhile, Seccareccia and Lavoie (2016) argued that monetary policy since the 1980s has served the interests of financial rentiers. Which with the event of the financial crisis 'shifted from supporting rentier income to, first and foremost, protecting rentier wealth' through the transition to low interest rates and Quantitative Easing (Seccareccia, 2017, p. 342).

However, Young (2012) presents the case that this process is at best mixed. In his study of the Basel Committee on Banking Supervision, Young argues that, while it may

almost definitely be the case that financial actors share close normative and insular networks with central bankers, it is not clear that this leads to policy decisions in keeping with private interests (ibid.). In fact, it is even problematic to view financial interests as unified, with regulatory changes benefitting and disadvantaging different sectors (Pagliari & Young, 2014). Instead, it is better to understand financial influence as a sequence of shifting alliances between different groups of financial actors in attempts to influence policy makers (ibid.).

Furthermore, these approaches focus only on the ideational aspect of policy making. By focussing on shared conceptions of "good policy" or interpretations of legal mandates, these approaches eschew the implications of the practical question of policy making: that is to say, the implications of money market management and the changing structural dynamics of finance as highlighted by the IPE literatures. In fact, as Braun (2016) points out, financial sectors possess a large amount of 'infrastructural power' (p. 4) over central banks, as they essentially act as intermediaries between central bank policy and macroeconomic effects. Equally, as has been argued by several authors, there is a close relationship between fiscal policy and monetary policy in practical terms (Gabor, 2014b; Gabor & Ban, 2016; Issing, 2008; Siklos, 2002).

While the literature on central banks as policy actors successfully overcomes the shortfall of the IPE and crisis management literatures by situating central banks as important policy makers, in their focus on the politics of policy making and the institutional and ideational factors that shape outcomes, these approaches abstract away from the practical problems and dilemmas that central banks and states face. In short, these approaches "black box" central banks. That is, they focus on their policy inputs and outputs, rather than investigate their internal composition. Thus, while these literatures

provide insight into how conflicts are mediated and resolved, they lack insight into how and why these may occur.

## II.iii. Monetary Authorities

The more economistic literature on the crisis and central banking, both in the UK and elsewhere, provides some insightful starting points for overcoming these questions as to why and how central banks and national governments may differ. Firstly, this approach provides a deeper expansion into what it is that central banks do, how they relate with financial actors in a practical sense and what this means for the policy problems they face. Secondly, it highlights how, while there may have been a continuity in "paradigm" for states taken as a whole in responding to the crisis, central banks themselves have undergone significant changes. However, it is ultimately hampered in these insights by an almost reverse "black boxing". While the political science literature focusses on how central banks relate to other policy actors, the Economics and Finance literatures "black box" the question of state influence and political concerns, treating money market operations as apolitical technical concerns.

Charles Goodhart (1988, 1995, 2009, 2011) has written extensively on the development of central banking both in general and in the UK. Goodhart's analysis places central banks as primarily features of financial markets and credit structures. Their position is the result of the unintended centralisation of reserves in large stable banks in key financial markets (Goodhart, 1995). While central banks developed around state interventions, such as the consolidation of note issue in a single bank, the majority of what a central bank does and the means by which it does it come from its position in money markets not from this government intervention (Goodhart, 1988).

Thus questions asked tend to revolve around how "monetary authorities" should act in financial markets to achieve policy goals. For Post-Keynesian authors (e.g. Arestis & Sawyer, 2006; Chick & Dow, 2002b; Fontana, 2003; Moore, 2006), this revolves around to what extent the central bank can make the base rate effective through market interventions and the dynamics of liquidity preferences (Goodhart, 1989) versus "horizontalist" (Moore, 1988, 1989, 2006) approaches to the supply of credit. Meanwhile neo-classical accounts focus on the direct effect of the base rate on the money supply and inflation though output and expectations management effects (Blanchard & Fischer, 1989, pp. 569–583; see also Friedman, 1969; Taylor, 1999). Both place central banks as simultaneously dependent upon finance for making its policy changes effective, what Braun (2016) refers to as the 'infrastructural power' of finance, while also holding large amounts of power over finance as the issuer of the means of interbank clearing.

The literature on the crisis response, then, has focussed on how this relationship with finance has changed. Specifically how the growth of securitised funding streams changed the dynamics of banks' balance sheets (Hardie & Howarth, 2013b). This is then linked to the chains of complex financial relations and the credit crunch sparked by the US sub-prime default (Chick, 2008; Goodhart, 2008; Shin, 2009), which in turn forced central banks to develop "Dealer [or Market Maker] of Last Resort" facilities, guaranteeing market rather than institutional liquidity in response to the crisis (Mehrling, 2011). Alongside other market reforms that have changed the dynamics of funding and liquidity after the crisis (Singh, 2014b), these have emphasised how central bank operations, such as those conducted by the Bank of England, have involved a significant rethinking of how central banks engage with financial actors away from notions of

efficient markets towards theories of radical uncertainty and systemic risk (Goodhart, 2011; King, 2016; Turner, 2016).

Others have focussed on the efficacy of "unconventional" monetary policy and the implications of reaching the effective zero-lower bound for monetary policy as an expansionary tool, either assessing its efficacy (Bridges & Thomas, 2012; Joyce et al., 2010; Lyonnet & Werner, 2012) or expanding on how this shift in policy results in distributional effects by increasing the wealth of asset holders (Bank of England, 2012c). While others have argued that this expansion is actually risking further and more serious crises as the supply of liquid collateral is restricted (Gabor, 2014b) and the shadow-banking sector is encouraged and the 'search for yield' continues (Lysandrou & Nesvetailova, 2014). This indicates how both monetary policy and central bank operations more generally have become increasingly important to the economic wellbeing of the UK (Bowman et al., 2013; Dow, 2017).

What are lacking from these approaches are the relationships of power and the social implications of these changes beyond the immediately economic. Specifically, they do not discuss how these decisions shaped and were shaped by decisions made by other actors: in other words, the "politics" of these changes in bank operations. Not only is there an increasingly strong link between government debt and the ability of central banks to affect the production of money (Gabor & Ban, 2016) but also the question of "moral hazard" invoked by the increased provision of liquidity insurance raises questions of re-regulation, especially when in the UK the majority of regulatory and supervisory powers have also been handed to the Bank of England.

Instead, the development of policy is seen as being conducted external to the question of monetary operations. This is either done by conceptualising 'monetary authorities' as 'the combined operations of the Central Banks and Treasury, under the political leadership of the Chancellor/Treasurer and Prime Minister' (Goodhart, 1995, p. 60) or by acknowledging the potential separation between the two and the potential for 'conflicts between the monetary authority and the governments to whom they are accountable' (Siklos, 2002, p. 24) while assuming a policy consensus around a given goal — normally low inflation. In essence, this conceptualises the overarching policy developments in a similar "state strategy" or "contestable strategies" approach as found in the IPE and Political Science literatures but without the political content of either.

In a similar manner to the IPE and Political Science literatures, the Economics approach emphasises one aspect of central banks to the detriment of others. This was what Ollman (2003) referred to as a 'one-sided' abstraction (p.3), when one aspect of a social object, such as the Bank of England, is studied in relative isolation from the other aspects. This is often done to develop an understanding of a particular set of relations (state/finance, experts/policy makers, monetary authorities/banks) but it involves the separation of this aspect from the aspects of a social object with potentially misleading results.

In contrast, this thesis avoids this process of one-sided abstraction by situating the Bank of England as a complex social object within the broader social circumstances in which it exists — i.e. 21st-century monetary practices and capitalism. In doing so, it seeks to situate itself within the existing critical political economy literature on central banks and the crisis. However, as is argued in the next section, these literatures have been limited either by following the IPE approach of folding the central bank into the state or,

as is the case with most Marxian accounts, utilising an approach to the production and reproduction of money that does not reflect modern practices.

## II.iv. Critical Approaches

The critical approaches to the GFC and the Bank of England offer a more fruitful starting point in overcoming the gap in the 'liberal' literature, due to their emphasis on the interconnection between different parts of the social object (the Bank of England). Broadly speaking, two approaches have been employed to the study of the crisis and the changing role of the Bank of England (or central banks in general). The first is the post-structural political economy of Paul Langley, who utilises a Foucauldian framework to problematize the crisis responses in the UK and the USA. The second is the various Marxian approaches to the crisis in the UK and Europe, most notably Costas Lapavitsas' work on money, finance and crisis, which deals explicitly with the role of central banks in capitalism. The argument put forward in this section is that these approaches are limited in their ability to explain the changing role of the Bank of England from 2006 to 2015.

The Foucauldian approach utilised by Langley, while providing important insights into how the crisis and post-crisis reforms were delineated and problematised as issues of Liquidity, Toxicity, Solvency, Risk, Regulation and Debt from 2007 to 2014, fails to engage with the materiality of the crisis as a crisis of money as credit and how the crisis itself was transformed and shaped by the responses applied. Meanwhile, the existing Marxian approaches, such as that of Lapavitsas, provide useful starting points for the investigation of money, credit and finance in crisis but they also under-conceptualise central banks as the holders of 'a centralised reserve for the banking system as a whole' (Itoh & Lapavitsas, 1999, p. 154) and thus largely discussed with reference overall credit

structures (e.g. Lapavitsas et al., 2012; McNally, 2009). This chapter then closes by suggesting that, by approaching the crisis from the vantage point of the internal contradictions of money as credit money, we may be better able to situate the Bank of England and its changing role since 2007.

## Post-structural Political Economy

The post-structural approach utilised by Langley in *Liquidity Lost* provides a rich and broad account of how the crisis and the post-crisis reforms were constructed as a series of technical problems, where malfunctioning markets required the sovereign action of state institutions. This depoliticised the issues and, through the maintenance of "consensus", closed the space for voices of dissent (Langley, 2014; see also Rancière, 2014). Specifically, this took the form of problematising the crisis as issues of liquidity, toxicity, solvency, risk, regulation and debt, each of which evoked a response from various parts of the state's governance apparatus.

In doing so, Langley has provided a complex and rich account of the crisis. An approach which shows how the articulation of the crisis by states and central banks coalesced around themes of maintaining confidence and technicality. Problems to be 'governed by and through the economy' (Langley, 2014, p. 167) — i.e. by market forces. This ensured the legitimation of the use of sovereign modes of domination and violence to secure the existing conditions of Anglo-American capitalism. This prevented contestation of neoliberal paradigms through the framing of the problem itself. This also departs from the state-centric approaches by emphasising the 'discrete, multiple, and, at times, highly experimental, attempts to govern the crisis' (Langley, 2014, p. 172) through a variety of different governance apparatus, such as central banks, legislators, and treasury

officials. Furthermore, Langley highlights how these delineated problems were necessarily limited and led to the material permutation of the crisis, thereby requiring the construction and re-construction of the crisis as separate delineated issues requiring the marshalling of distinct components of the state in response.

The Bank of England emerges in this narrative in response to the initial problematisation of the crisis as a liquidity crisis. Langley presents the case that the initial phase of the crisis was essentially constructed as a problem of 'counterparty risks', as highly leveraged banks restricted lending to each other (Langley, 2014, pp. 38–39), stopping the otherwise smooth circulation of financial assets (Langley, 2014, p. 45). Thus 'at the outset, the crisis was rendered as a technical problem-object of liquidity in order that it could be acted upon' (Langley, 2014, p. 56).

This action was ultimately to be taken by central banks whose debt was the ultimately liquid asset as the ultimate means of exchange and payment (Langley, 2014, pp. 52–53). The task defined as the need to:

> return markets to their liquid norm, restoring the continuous and uninterrupted exchanges and circulation which ostensibly take place as banks and financial markets function smoothly to produce and allocate credit. (Langley, 2014, p. 46)

This meant central banks using Open Market Operations and their balance sheet to restore confidence and liquidity to financial markets, thereby securing the security of an increasingly financialised economy dependent on the everyday provision of private debt (Langley, 2008).

This approach to the crisis as essentially a series of problems constructed and responded to by governance structures does overcome several of the limitations of the

'orthodox' literature. The emphasis placed by Langley on the crisis as a series of problems constructed by the state brings together the three existing strands of IPE, Political Science and Finance into a single narrative. In doing so it links the technical problems of the crisis to the processes of state strategy and policy development. Processes which are engaged in and articulated by experts such as central bankers in order to rationalise their actions. Although Langley does not dwell on these points, his approach provides space for the conceptualisation of the conflicts and actions of central banks within state structures as central to the construction of the crisis and financial operations as technical problems, through their depoliticisation and scientisation as independent technical experts. Furthermore, his focus on the use of liquidity operations of central banks readily acknowledges their key position within financial markets as the ultimate monetary authority and the implication of their operations as the bankers' bank.

That being said, the approach taken by Langley has several significant deficits. Firstly, this approach overplays the consensus over how the crisis was to be defined. The initial phase of the crisis was not one of a clearly defined and operational 'liquidity crisis', as implied by Langley. Rather it was heavily contested in the UK as to whether the crisis was one of liquidity or solvency, with the Bank and the Treasury taking opposite views (Darling, 2011). Even when in early 2008 it was apparent that liquidity was a central issue, the Bank was limited in how and why it would extend its facilities.

More importantly, Langley's account focusses too heavily on the discursive element of the crisis in its problematisation. The implicit linkages between concepts such as solvency, liquidity and toxicity are unexplored, as are the material implications of the action taken by sovereign authorities in shaping the materiality of the crisis. Equally this approach, almost by definition, cannot engage with the material reality of the crisis. By

focussing on how it is conceptualised, its structural reality is left undeveloped. That liquidity, credibility and solvency as well as risk, regulation and debt are material and with material consequences is acknowledged but subordinated to their conceptualisation as problems. The fact that legislation and money have important, material and social effects beyond their definition or conceptualisation in a particular manner, is left unexpanded.

Finally, and perhaps most importantly, Langley's account is devoid of agency. Why was it that the consensus sought to depoliticise the crisis responses? Why were certain courses of action taken and others not? What and who were the key structures and actors driving this? What material limitations did they face and what were their objectives? Are all left undisclosed. The relations between the various components of the governance architecture and how their material circumstances, as well as their conceptualisation of them, shaped the course of the crisis are a key missing component of this approach if we are to understand the changing role of the Bank of England.

The core argument of the final part of this chapter is that a historical materialist approach to the crisis has the potential to overcome both the limitations of the 'one-sided' abstractions of orthodox approaches and the deficits of the post-structural approach. The following outlines how current historical materialist works have sought to approach the crisis and their limitations in engaging with central banks, such as the Bank of England, as actors and institutions. Specifically, while they provide a foundation for understanding the implications of the crisis and the money form, their conception of credit money limits their current explanatory value. The financial section then presents the case for developing a clearer historical materialist conception of credit money as an approach to the study of the Bank of England.

## Historical Materialist Approaches to Money and Crisis

While Marxian writings on both finance and the crisis are varied and extensive (e.g. Harvey, 2010; Kliman, 2011; McNally, 2009; Roberts, 2016), relatively few engage with the role of central banks like the Bank of England. The exception to this is the work of Costas Lapavitsas, whose early work (Itoh & Lapavitsas, 1999; Lapavitsas, 2001b) deals explicitly with the role of central banks in late capitalism and whose account of the GFC in the EU positions the European Central Bank as a key actor and institution (Lapavitsas et al., 2012). Furthermore, the approach taken by Lapavitsas is relatively typical of 'orthodox' Marxian accounts of finance and crisis and he has been extensively involved in debates around the nature of money in capitalism (Fine & Lapavitsas, 2000; Lapavitsas, 2003, 2005). For ease of exposition the rest of this chapter, and the subsequent chapter outlining the approach adopted in this thesis, will be predominantly positioned in respect to his work — signalling, where appropriate, other authors who make similar points or provide alternative approaches.

### Central Banks in Marxist Theory

Marxian analysis of central banks comes after the derivation of the credit structure from money and exchange. This approach is expanded on further in chapter three. However, for the purpose of this review of Lapavitsas' contribution, the following summary should suffice.

Marxian approaches, such as Lapavitsas', to credit and central banks begin from what Schumpeter (2006) terms a 'monetary theory of credit' (p. 686). They begin from a fixed notion of money and then posit credit in relation to it. Money is derived from the relationship of exchange as the 'universal equivalent … the commodity that can buy all

others' (Lapavitsas, 2003, p. 56). This is distinguished from credit and credit-money, such as bank-notes, which are conceptualised as placeholders, representing but not embodying the value of 'money proper' (Itoh & Lapavitsas, 1999, p. 45; Lapavitsas, 1991, p. 309).

The reason for this separation comes from the derivation of money from exchange and the expression of abstract labour in a single commodity (see Marx, 1974, pp. 54–75). The 'moneyness' of money comes from its monopoly on the ability to purchase (Fine & Lapavitsas, 2000). That is, it is the single commodity that can be exchanged for any other commodity and through which other commodities realise their value. Money does not exist as an abstract unit of account for Lapavitsas but is a real object which enters into relations with other objects in the process of exchange (Lapavitsas, 2003). The supply of money is regulated through the process of hoarding and dis-hoarding — in contrast to the quantity theory of money (see Campbell, 2005).

Credit is initially posited in contrast to this real object of money as a promise to pay the latter in the form of trade credit (Itoh & Lapavitsas, 1999, pp. 86–89). However, with the development of banking this private relation of trust becomes socialised as hoards are centralised and capital accumulation is increasingly funded not by the presence of hoards deployed as capital but through credit lines (Fine & Lapavitsas, 2000, p. 370). Money becomes increasingly dematerialised and replaced by fiat currency and bank-notes, which enable the continued circulation of commodities without the immediate presence of the money commodity. These new money forms, however, still depend on the presence of money proper — the money commodity — for the clearing of debts and ultimate settlement (Itoh & Lapavitsas, 1999, pp. 99–100).

Central banks emerge as the central hoard of money proper, thereby substituting its credit as the means of national payment of debts and ensuring its convertibility into the international means of payment — money proper (Lapavitsas, 2001b, pp. 180–184). Central banks perform two key functions. Firstly, as the national hoard of money they regulate the means of international payment, and, secondly, as the provider of the national means of payment they regulate the national production of credit money through the provision of liquidity and crisis facilities (Itoh & Lapavitsas, 1999, pp. 154–163). In short, they mediate the national and international monetary and financial systems and associated crises. These two objectives are potentially in conflict as the easy provision of domestic settlement, central bank reserves, facilitates the expansion of credit, which risks decoupling the value of bank money from money proper, creating space for arbitrage and speculative crisis. Meanwhile, too tight a policy through restrictions on issuance or high interest rates risks bank insolvency and the failure of bank money (see Lapavitsas, 2001b).

This approach does have significant resonance with the experience of the global financial crisis in the UK: for example, the critical importance of the swap line with the Federal Reserve for the Bank of England's lender of last resort operations and the issues of liquidity and solvency for UK banks at the centre of the Bank of England's response. This approach, in its basic description of the operation of central banks and modern money, is highly problematic. Specifically, there is the issue of how to concretely define 'money proper' — especially since 1971.

Within the gold standard and the Bretton Woods currency arrangements with the Dollar peg, the notion of the money constraint as a relatively fixed object and the credit/money distinction bear significant weight. However, in the post-1971 period, where the global means of payment are bank money with no 'higher' reference, the

distinction between bank money and money proper becomes untenable. This is because, although suspension of convertibility of a national currency into the world money would regularly occur under both the gold standard and the Bretton Woods system, it would necessarily still maintain this link as it was exchanged on money markets — just at a variable rate of exchange (Marx, 1973, pp. 130–136). With the abolition of the global link to gold and the sole use of the US Dollar as the world money, which has increasingly become contested, the global payments system has become based on a system of clearing institutions operating in a variety of denominations and covering variable areas.

This has posed something of a problem for the orthodox approach to credit and money in Marxian theory. Either the credit/money distinction must be abandoned and the relationship between bank money and the economy re-conceptualised or the distinction must be redrawn. The solution most often posited is that the modern circulation of money is a relationship between the "proper" money of state-backed fiat currency — central bank reserves, notes and coin — and the bank money of private banks (Lapavitsas, 2013, p. 70). Through the control of this 'high-powered money' states and central banks continue to limit, nationally and internationally, the expansion of money through monetary policy (Itoh & Lapavitsas, 1999, pp. 163–166). This "state violence" approach essentially seeks to maintain the traditional hierarchy, having substituted state power for gold. The money constraint can still be said to bind as states set the level of fiat money available, and globally the US determines the availability of the global means of payment (Marazzi, 1995, pp. 75–76).

However, this is increasingly problematic to maintain, as not only has the US Dollar become increasingly contested as 'world money' (Cohen, 2016), but the creation

of USD reserves is also largely an endogenous process (Federal Reserve, 2002). As the Post-Keynesians have readily pointed out, central banks effectively face a choice between setting the level of reserves or the cost of reserves (see also Goodhart, 1984; Moore, 2006). The latter involves significant levels of market volatility and risks the credit structure. Instead, central banks have tended to move towards steady changes in the market rate for funds while leaving their supply relatively endogenous as a means of shaping credit practices (e.g. Tucker, 2004). The base rate may then be used to target broad money growth, as is the case in the Eurozone, but the narrow money identified by Lapavitsas as 'money proper' remains fungible and endogenous to the credit system.

Furthermore, the access to the international means of clearing in the UK is easily provided through a currency swap line. In fact, since 1997 it has been the Treasury, not the Bank of England, that holds the UK's official currency reserves (Brown, 1997). Bank of England currency reserves have been gained through the issuance of foreign-denominated bonds by the Bank of England (Bank of England, 2017). In fact, the position of the balance of trade and the exchange rate to other reserve currencies (Sterling being the third main global currency since the introduction of the Euro) did not surface as a significant concern throughout the crisis other than in post-hoc diagnosis of structural imbalances (e.g. Brown, 2010; Cable, 2010; King, 2016).

In essence, the notion that the credit/money distinction can be maintained is problematic at both the national and the international level, even when appealing to 'state violence' and fiat money as the foundation of the credit supply. This is because at both levels the supply of 'high-powered money' is determined as much by the expansion of private bank money as by the actions of the central bank or state. The two essentially exist in an interdependent manner as a part of a broader credit structure. Reducing the central

bank to the manager of ‘money proper’ or the means of international payment is highly problematic.

**Crisis in the Eurozone**

This approach to the study of central banks is reiterated by Lapavitsas et al. (2012) in their account of the Eurozone crisis:

> [C]entral banks can act as the last line of defence because their liabilities are the most acceptable form of credit money. The ultimate guarantor of this function, however, is the state whose power — fiat — turns the liabilities of the central bank into legal tender for commercial and other obligations. The state is also the ultimate guarantor of the solvency of the central bank which remain, after all, a bank. (Lapavitsas et al., 2012, p. 168)

In essence, this reiterates the “state violence” approach to the understanding of modern money and finance. That being said, the materialist account provided in many ways overcomes the limitations of the other approaches considered so far.

In their account of the development of the crisis in the Eurozone, Lapavitsas et al. (2012) focus on the structural configuration of the Eurozone as possessing a supranational monetary authority (the ECB), national fiscal authorities and integrated financial sectors. In doing so they draw out how the structural interconnections between these three components and the underlying political project of Economic and Monetary Union both limited and shaped the development of the crisis. This in turn was embedded in a narrative of economic imperialism and class struggle.

The ECB is placed squarely as a key actor within the Eurozone crisis, as are the political implications of its "technical" operations. Firstly, its pre-crisis money market operations are linked to the financialization of the Eurozone as it chose to accept private securities alongside public debt, essentially placing itself as a funding counterparty to commercial credit expansion (Lapavitsas et al., 2012, p. 43). Secondly, the levelling of sovereign debt in refinancing operations led to competition between states for funds as the crisis unfolded, in part exacerbated by the ECB's liquidity operations (Lapavitsas et al., 2012, pp. 53–58), with core (i.e. French and German) banks seeking to garner profits from increased lending to the periphery (Lapavitsas et al., 2012, pp. 100–102). This then sparked further crisis as national governments eventually had to both recapitalise certain banks and bear the costs of recession, worsening their fiscal position and sparking a sovereign debt crisis (Lapavitsas et al., 2012, p. 99).

The political separation between the fiscal authorities and the monetary authority with integrated finance then came to bear with full force on the Eurozone, as the imperialist desires of core nations and the needs of finance came to take priority over those of labour and the periphery (Lapavitsas et al., 2012, p. 167). The ECB remained a key actor in these developments. It sought to exert discipline on the periphery nations while absorbing some of their losses as it attempted to secure the needs of finance (Lapavitsas et al., 2012, p. 169). This reveals a dissonance between the ECB's overriding desire to secure the needs of finance and transnational capital at the expense of periphery nations and debtor states. This account thereby overcomes the limitations of the mainstream accounts by weaving the three aspects of central banking — state action, policy making, and technical operations — into a single narrative and explanation based on the conceptualisation of the EMU project as one of monetary imperialism.

The limitations of this account and approach, however, are threefold. Firstly, as noted above, the conceptualisation of central banks and banking employed is problematic. Secondly, the reasons for the ECB's decisions and reactions are largely ascribed to the institutional peculiarities of the European project. So when seeking to understand the development of the Bank of England, whose institutional arrangements are not in the least like those of the ECB, its explanatory power is limited. Finally, the questions of agency and problematisation of the crisis are left undeveloped. What was done, and its implications, is readily accounted for, but why it was done is not.

That being said, the historical materialist approach does appear to offer the best starting point for the conceptualisation of the Bank of England from 2006 to 2015. Firstly, the approach both identifies potential underlying problems facing central banks due to their relation to money and credit and then articulates their implications for crisis strategies. Secondly, this is embedded within a broader framework that allows for the importance of institutional configurations and politics in shaping policy decisions, which are then also evaluated in terms of both their technical and political significance. The closing section of this chapter expands on how this thesis seeks to take the historical materialist approach forwards by making some minor revisions to the conceptualisation of central banking and how this enables us to provide a clearer reading of the changing role of the Bank of England from 2006 to 2015.

## II.v. Steps Forward

Three conclusions can be drawn from this chapter. First, the majority of approaches to the study of the Bank of England from 2006 to 2015 emphasise one aspect of the Bank's activity to the detriment of others. These 'one-sided' abstractions, however, do highlight

three important aspects of the Bank: that its strategies are closely connected with broader state strategies; that the development of these strategies is contested internally with implications for both parties; and that the Bank's main position of power and operational role comes from its relation to the credit structure, which not only enables it to influence financial activity but also sets the limits of such action.

Second, it is possible to integrate these approaches by approaching central banks from broader critical perspectives. However, this broader critical approach needs to engage with the historical and material practices and problems faced by the Bank of England. Rather than seeking to articulate how they are conceptualised and thus engaged with by policy actors, an analysis of the Bank of England should begin from the underlying conditions and problems of its existence. The work of Costas Lapavitsas and his collaborators has made significant steps in providing a framework that facilitates this by focussing on the position of central banks in the credit structure and the money relation, thereby linking the technical, political and state strategy implications of the crisis development in the Eurozone.

However, the third conclusion remains that the approach provided by orthodox Marxian accounts is problematic due to the maintenance of the credit/money distinction. By maintaining this distinction, the central bank problem is incorrectly posited as one of mediating national and international money and credit and is focussed on world money. What this final section argues is that a more fruitful historical materialist way forward can be found, and this will be developed in the next chapter, by drawing on I. I. Rubin (1973) and the Open Marxist tradition on the Money and State forms.

Rubin's approach to money differs from that of orthodox Marxian approaches in that he emphasises the content of money as an organising social relation rather than as a set object or thing. While he agrees that it is not a simply a symbol, the crux of money is its relationship with the circulation of commodities and it may take many material forms (Rubin, 1973, pp. 7-13). Chapter three builds on this alternative starting point to the study of money as a social relation and the thesis draws on the work of Simon Clarke and the Open Marxists on the contradictory nature of money in capitalism.

This serves as a starting point for what the broader social problems are that the Bank of England faces as a monetary authority. Rather than placing the centrality of its role as a mediator of national and world moneys, as done by Lapavitsas, the Open Marxist approach places at the forefront the problem of managing money as a contradictory social form. This is combined with the recent work of Daniela Gabor (Gabor, 2014b, 2016a; Gabor & Ban, 2016) and Post-Keynesian/Minskyan authors (Bell, 2001; Ingham, 1984; Mehrling, 2000b, 2011) on the structural interconnection of states, finance and central banks in the production of credit money, drawing out the political economy implications of these connections (see also Burn, 1999; Green, 2016). Chapter three argues that we can move to a more insightful notion of the central bank problem by utilising a money view based on the complexities of both money in general and of credit money.

This approach is then applied in chapters four to seven to unpick how the pre-crisis reforms to the Bank of England shaped its available governing strategies when faced with the central bank problem (chapter four) and how this then shaped the crisis response in the UK (chapter five). The subsequent money market reforms and 'exceptional' monetary policy, such as quantitative easing, can then be understood as changing money management strategies as the limits of one strategy are met and another is sought (chapter

five), with sweeping political economy implications as the Bank of England became increasingly exposed to both the financial needs of capital and the state. The implications this had for the management of finance and banking as the ultimate producers of money and the empowerment of the Bank of England as the primary supervisor and regulator can then be seen in the light of both the money problem and the shifting needs of the Bank as a monetary authority.

# III. The Central Bank Problem

*As material representative of general wealth, as individualized exchange value,* money must be the *direct* object, aim and product of general labour, the labour of all individuals

(Marx, 1973, p. 224)

the creation of cash … is open only to the government and — in a special way — to banks (although in principle every unit can "create" money-the only problem for the creator being to get it "accepted")

(Minsky, 2008, pp.78–79)

The typical modern banking system consists of a Sun, namely the Central Bank, and Planets, which, following the American usage, it is convenient to call the Member Banks

(Keynes, 1930, p. 8)

Before discussing how the role of the Bank of England changed from 2006 to 2015 it is important first to establish the framework for understanding and explaining these changes. The approach adopted by this thesis is broadly historical materialist, as it limits the possibility for 'one-sided' analyses of the Bank of England by positioning it within both the broader social relations of capitalism and the particular historical conditions of the British state system. This chapter operates at the more general of these two levels by positing a 'central bank problem' that underpins the subsequent analysis.

In doing so this chapter also seeks to update the orthodox historical materialist approach to the study of money and central banking. For simplicity we will take the work of Costas Lapavitsas as the contemporary representative of this approach, as his work on credit and financialisation explicitly addresses the problems of finance and central banking (Lapavitsas, 2006, 2013, 2016). However, similar patterns of analysis and conclusions can be found within the Marxian literature more generally (e.g. Aglietta, 2001; Clarke, 1988; de Brunhoff, 2015; Fine & Saad-Filho, 2016; Harvey, 2006). This approach starts by first deriving money as an object — the money commodity — which serves as the linchpin of the monetary system and from which other monetary forms — fiat and credit — are derived. These subordinate forms are constructed as representations or symbols of the 'money thing' and ultimately must be reconciled with it through the central bank. The central bank problem is thus derived as one of managing the vertical conversion between subordinate or national money forms and the 'money proper' of world money — which while no longer a commodity operates in the same way.

This chapter argues that, while this approach may capture the predominant problem for some central banks today and the Bank of England at earlier points in history, this approach is insufficient to the study of the Bank of England in the 21st century. This is because the orthodox approach articulates the central banking problem as one of managing the vertical relationship between domestic credit and fiat money and the ultimate means of payment — 'world money'. Additional policy concerns of inflation, economic activity and balance of payments are characterised as the result of political pressure rather than as being inherent to central banking (Itoh & Lapavitsas, 1999, pp. 164–165). However, the Bank of England did not face a significant problem of international payments in 2006–2015, and the problems and crises encountered were both

the result of and resulted in political contestation. Its core problems were better characterised by what Mehrling (2011) refers to as the ‘inherent instability of credit’, where the relationship between money as credit and economic activity broke down (pp. 12–16).

The majority of this chapter thus presents an alternative approach to the study of money and central banking within historical materialism. By drawing on the work of I. I. Rubin (1973) and deriving money from generalised exchange rather than individualised exchange, this alternative approach first develops money as a social relation in capitalism, before asking how different objects become socially positioned as money (Lawson, 2016). This means that the category ‘money’ remains open as a social form, in that it is ‘the very stuff of conflict’ both between capitals and between capital and labour (Bonefeld & Holloway, 1995, pp. 2–3; see also Burnham, 1994).

This conflict manifests in the problems faced by monetary authorities in the production and reproduction of money. These problems are historically and institutionally specific, but revolve around maintaining the credibility of a particular money as money. This involves both maintaining the link between a money and the circulation of capital over time and the vertical and horizontal convertibility of money both within and between denominations. The central bank problem can thus be derived as the need to maintain the credibility of money as credit through the management of the banking system. This manifests as a threefold problem: the need to maintain the link between a finite number of commodities and a potentially infinite supply of credit money — price stability; the need for the banking system to settle its immediate obligations — liquidity; and the need for the debts that correspond to the circulating credit to be realised — bank solvency.

This chapter proceeds as follows. Part one reviews the orthodox approach to the central bank problem. Part two develops an alternative approach to the study of money banking — positing a general problem for monetary authorities. Part three then posits the central bank problem that forms the explanatory underpinning of the rest of this thesis.

## III.i. The Orthodox Approach

The orthodox Marxist approach sees money as originating historically and analytically from exchange relations between 'commodity owners who are essentially alien or "foreign" to each other' (Lapavitsas, 2003, p. 61). As they cannot appeal to customary practices for exchange, they must place the commodities in question into direct relation with one another. Over time a single commodity then emerges as the general equivalent through incidental and frequent requests for a particular commodity in exchange (Fine & Lapavitsas, 2000, pp. 365–366; Lapavitsas, 2003, pp. 61–63, 119–124; 2005, pp. 392–394). This particular commodity gains a limited ability to 'buy' others through its privileged position (Lapavitsas, 2003, p. 63). Over time it eventually 'monopolizes the ability to buy' (Lapavitsas, 2005, p. 392) as it becomes customarily fixed in exchange as the general equivalent (Lapavitsas, 2003, p. 63) — it becomes money, the commodity in which all other commodities express their exchange value (Marx, 1974, pp. 56–74).

This initial or accidental form of money as a means of exchange and measure of value then takes on new roles as exchange becomes generalised. It becomes a means of hoarding wealth, a means of payment and ultimately, with the development of world money, the ultimate means of payment (Fine & Lapavitsas, 2000, p. 366; see also de Brunhoff, 2015). These further functions are linked to the development of credit as first the lending out of money then to the creation of bank or credit money (Lapavitsas, 2003,

pp. 71–79) as a new form of money alongside fiat money (Lapavitsas, 2000). Each of these 'stand in' for the 'money proper' of commodity money (Lapavitsas, 1991, p. 294). Thus:

> it is particularly misleading to identify means of commodity exchange as money's dominant function in 'modern' capitalist society … the bulk of monetary transactions in value terms — *are no longer mediated by money but by credit*. Consequently, money in advanced capitalism functions primarily as means of payment and element of hoards. (Fine & Lapavitsas, 2000, p. 370, emphasis added)

Although Lapavitsas does argue that other (non-commodity) monetary objects such as fiat money or bank notes can come to operate as money, and in fact that modern monetary relations are no longer based on a commodity standard (Lapavitsas, 2016, pp. 263–264), this analysis rests on the notion of a 'money proper' (Lapavitsas, 1991, p. 294) or 'world money' (Lapavitsas, 2006, pp. 136–137) which other monetary forms refer to or seek to represent (see also Harvey, 2006; Marazzi, 1995). Fiat money 'is a state-issued symbol of commodity money' (Lapavitsas, 2000, p. 646), while credit money is simply "promises to pay" by banks or "claims upon their hoards" of money-proper (Lapavitsas, 1991, pp. 308–309).

The money problem implied by this approach is essentially one of convertibility between moneys. Fiat and credit money are at best partial moneys, dependent in the last instance on convertibility into "money proper" or "world money" as a means of final payment (Fine & Lapavitsas, 2000; Fine & Saad-Filho, 2016; Lapavitsas, 2006). This is constantly put at risk by the actions of banks and states in extending credit and fiat,

respectively, fostering overaccumulation and ultimately payment failures — forcing crisis (Lapavitsas, 2001; see also Lucarelli, 2010).

This approach thus derives the central bank from its role as the bankers' bank, the national reserve of the ultimate means of payment — world money (Lapavitsas, 2003, pp. 84–85). Thus the central bank's credit is able to facilitate a more stable domestic financial system by substituting itself for the scarce money commodity (or foreign currency) for the purpose of national payment, thereby limiting the demand for 'money proper' to international settlements. The central bank problem is thus to protect its hoard and maintain the link between the national and international circuits of money through its hoard of 'money proper' (Itoh & Lapavitsas, 1999, p. 161).

The other features of the central bank as the state's bank and as lender of last resort are important to the extent that they provide legal status to the central bank's issue and enable it to stabilise and regulate the financial system by penalising excess and preventing collapse (Lapavitsas, 2003, pp. 85–86). Meanwhile, the policy obligations of price stability and economic growth are simply political demands made upon powerful Western central banks which, post-1971, have been largely liberated from their need to protect the national hoard of 'world money' (Itoh & Lapavitsas, 1999, p. 165; Lapavitsas, 2006, pp. 137–139)[7].

[7] It is worth nothing that some orthodox accounts such as Harvey (2006) and de Brunhoff (2015) do include these as important functions of central banks. However, the ultimate constraint is maintaining the link between credit and money proper/world money.

### Problems with the Orthodoxy

The definition of central banks as the national hoard of world money and the associated problem of protecting this hoard are problematic for explaining the dynamics of the Bank of England from 2005 to 2016. Liquidity and international payment needs did arise but only briefly and were immediately resolved through the establishment of bilateral and then multilateral currency swaps (McDowell, 2012; Mehrling, 2016). Meanwhile, the Bank of England did face a significant series of domestic crises of money and credit which were met with drastic and sweeping reforms — the subject of this thesis.

Thus while the orthodox approach does successfully identify an important concern and problem for many central banks today, and one that has historically been crucial for the Bank of England (see Clapham, 1944a, pp. 24–26; 1976; Sayers, 1976, pp. 264–272), it lacks explanatory power for the case at hand. This is because it overemphasises the "thingness" of money as an object rather than as a social relation (see Ingham, 2001; Zelizer, 2000) and thus identifies the Bank of England by its role as the hoard of this 'money thing'. Instead, this chapter proposes an approach to money which focuses on its role as a contradictory social relation and the role of the Bank of England in mediating and managing these contradictions. This is a preferable treatment because it both contains the problem identified by the orthodox approach and provides a means of understanding the crises and problems facing the Bank of England in 2006–2015.

## III.ii. An Alternative Approach

Instead of beginning from the moment of isolated exchange, the approach adopted here begins from capitalism as a mode of production within which exchange and money are

pivotal social relations. It seeks to understand money first as a 'social form', simultaneously the consequence of the relations of production and the premise of these relations (Rubin, 1973, pp. 22–23), before investigating the processes by which an object becomes socially positioned as money (Lawson, 2016). This enables the articulation of a general money problem within capitalism, which is then used to understand the more concrete problems of producing and reproducing social objects as money.

To be clear, this approach does not assert the analytical primacy of the higher levels of abstraction. Instead, they are understood as general abstractions from the complex historically specific materiality of which these abstractions form a part (Marx, 1955, pp. 95–96). Crucially, then, this approach does not attempt to understand the nature of money, at either abstract or concrete level, as the result of its origins — historical (Ingham, 1999, 2004; Wray, 1998) or analytical (Lapavitsas, 2003, 2005). To do so would be to commit the 'genetic fallacy' — to confuse the origins of money with its modern nature (Beggs, 2016, p. 466). This is not to discard history, but to assert that it is only relevant to the extent it enables us to understand the current, historical and transient nature of money in capitalism (Marx, 1973, pp. 102–103).

This development of the money and central banking problems then recognises them as historically specific problems of differing generality. The central bank problem is a particular concretisation of the money problem. Its derivation thus requires both a process of deabstraction and historical development from the general money problem. On the one hand, we move from contradictions of money in general to the problem of monetary authorities and then central banks as a specific form of monetary authority. On the other hand, we move through increasingly complex versions of money that have

developed historically — commodity, fiat and credit — and their associated regulatory structures in order to develop the practical realities of the central bank problem.

## The Money Problem

Capitalism is predicated on two conditions: the development of exchange as the means of social organisation (Rubin, 1973, pp. 6–12) and the separation of the labourer from the means of production and reproduction, forcing them to sell their labour power in order to survive (Meiksins-Wood, 2002, p. 96). In short, capitalism is characterised by production for exchange and the sale of labour power (Marx, 1964, p. 67), processes necessarily mediated by money (Hilferding, 2006, p. 35).

Money not only mediates this exchange, but is also the object and means of social production within capitalism (Clarke, 1988, p. 86; Marx, 1973, p. 224). Marx expresses this in the simple circuit M–C–M′ (Marx, 1974, p. 153). Or, in other words, the process of social reproduction begins with a sum of money [M] which is used as capital to purchase the means of production. From this commodities [C] are produced and sold for more money than was originally invested [M′], the result of which is then reinvested to begin the production process anew (Campbell, 2013). Thus ‘money exists as the incarnation of general social power’ (Harvey, 2006, p. 241) as both the means and ends of social life (Clarke, 2003, p. 37).

Money itself, then, has a twofold character. First, it is the expression of general abstract (exchange) value, though which all other commodities express and realise their value — the moment C–M (Marx, 1974, pp. 108–110). Money exists as the measure of abstract value, through which all commodities express their value and through which they are valorised in exchange — the general equivalent (Marx, 1974, pp. 98–99). Money thus

also has a reciprocal character — as the general abstract expression of value, money's value is that it can become any commodity (Marx, 1970, p. 48), the moment M–C. Through the need to valorise labour and product through money, money gains the ability to command the social product and labour (Marx, 1974, pp. 108–115). It is through money that commodities, as values, metamorphose from one to another and thus the product of labour/capital becomes the means of reproducing labour/capital (Marx, 1977, pp. 101–104).

Within capitalism, however, this process contains a contradiction. Capitalism is premised on the accumulation of profit and the constant expansion of capital accumulation. Money [M] is used to exercise command over the means of production through the purchase of capital and labour power [M–C], which is then set to work to produce [P] commodities of greater value [C′] which are then sold for more money [C′–M+Δm] or in full:

$$M - C \ldots P \ldots C' - M'$$

(Marx, 1971, p. 25)

This poses a tension on money as both the means of valorisation and as social command (Clarke, 1988, p. 115). Within the expanding circuit, money as social command and money as the valorisation of production are two different sums, M and M′ (Moseley, 2016, p. 12).

This problem is not simply one of setting the supply of money at the 'right' level to meet the needs of both. Capitals develop in an uneven manner with different firms, sectors and regions facing different immediate problems in either securing the means of production or valorising their product (Clarke, 1988, pp. 105–106). The organisation of

capitalism through atomised markets means that individual capitals will tend to overproduce and face realisation problems as they attempt to increase their productivity (e.g. Hayek, 2002; Kalecki, 2003; Schumpeter, 1934). This places a constant demand for an increasing supply of money by various sectors, which circulates without discrimination, driving up *all* prices (Clarke, 1988, pp. 107–108). Meanwhile, capital's reliance on suppressing the costs of production, most importantly the cost of labour, means that capital as a social relation requires monetary restraint to prevent escalating prices (Cleaver, 1995).

This inherent instability also highlights a further component of the money problem. The moments M–C and C–M are not simultaneous. Thus money also has a fiduciary and temporal element to its existence. It is able to operate now as social command and valorisation because it is also a store of value (Harvey, 2006, p. 245). It is believed to hold its value and thus its existence as command over time (Reuten, 1988). In short, a given monetary object is able to operate as money because a given network of commodity traders believes that it will continue to do so over time (Dodd, 1994, p. xxiii). This trust 'operates on two levels: formally, relating to money as a social institution, to money in general; and substantively, in actual transactions, relating to specific monetary forms' (Dodd, 1994, p. 142).

Thus by approaching money first as a social relation, rather than as a thing, we have derived an initial money problem: a need for a simultaneous excess and shortage temporally maintained though socialised trust. This problem sits at the core of the central bank problem as its most general expression. The specifics of the central bank problem themselves are mediated by conditions of monetary production and regulation. The existence of money as a social relation with contradictory preconditions already contains

within it the premise of a regulatory process which mediates these tensions. That is to say, money must be produced and reproduced as a contested social relation. It is this problem that we turn to next as we move towards the central bank problem.

## The Production and Reproduction of Money

The concrete practice of regulating monetary relations involves moving beyond the abstract discussions of money as a social relation towards the practicality of producing and reproducing monetary objects. This requires two further steps. First, we need to conceptualise the relationship between the expression of value in prices and the monetary objects that these prices refer to. Second, we need to situate the money problem within the specifics of a given money form and its advantages and limits. Both processes reveal the importance of monetary authorities in the production and reproduction of money.

### Money-of-account and Monetary Bearers

Generalised exchange requires two distinct processes to occur. First, commodities must become commensurable through the expression of their value in terms of a single unit of account — they must have prices. Subsequently, they must be brought into relation with and exchanged for bearers of this value (Marx, 1974, pp. 98–99). Following Keynes (1930), we will refer the former as the ‘money-of-account’ and the latter as ‘money’ (pp. 3–4).

As Ingham (2004) notes, the establishment of a money-of-account is ‘logically anterior and historically prior to market exchange’ (p. 25). In order for prices to exist as anything other than momentary ratios of exchange, there must be an independent and stable means of measuring and expressing value (Ingham, 2001, pp. 309–310). This

requires for its existence an act of sovereignty: whereby ‘what is to count as money and how its myriad forms and media are to be recognized as belonging to the same class of phenomena is established by “collective intentionality”’(Ingham, 2006, p. 265). In other words, there must be a *monetary authority* which declares and maintains the money-of-account.

This does not mean, however, that the money-of-account exists independently of the bearers of its value, as is posited by the chartalist tradition (Bell, 2001; Wray, 2000) and increasingly by modern economic sociology (Dodd, 2005b; Ingham, 1999, 2004). These approaches see money-of-account as an abstract and independent measure of value, which money is then a signifier or symbol. This reproduces the notion of ‘money proper’ but instead of it being a monetary object it is an abstract monetary account of credits and debts. What this confuses, however, is the process of measuring with what is being measured (Lapavitsas, 2005, pp. 397–399); that is, it confuses between ‘*substantive* value’ and ‘*formal* value’ (Beggs, 2016, p. 470). While an authority — normally the state — may declare the formal value of the money thing (i.e. its numerical value as money), what this means in terms of external relations (i.e. in exchange, other moneys etc.) is clearly not determined by the state but by the use and reuse of money in the economy (Beggs, 2016, pp. 470–471).

Thus money-of-account cannot be understood as a measure of value independently of the bearers of that monetary value — money (Marx, 1974, pp. 98–99). Equally the money-of-account cannot be subsumed into money, as this would require declaring a specific social object as the measure of value, in which other objects are money only in that they represent it — i.e. declaring it ‘money proper’. Instead, what is proposed here is that it is preferable to think of the relationship between money-of-

account and money as a ‘set’ relationship. For example, the set “Sterling” is defined by its constitutive elements.

$$Sterling \begin{cases} Sterling\ Coins \\ Sterling\ Notes \\ Sterling\ Deposits \\ Sterlng\ Reserves \\ etc. \end{cases}$$

Sterling does not exist independently of these components; meanwhile, these components are money because they belong to the set “Sterling” while being qualitatively different social objects. In this sense, money is a self-referential object (c.f. Konings, 2018).

Thus the process of producing and reproducing money is not distinct from the production and reproduction of the money-of-account (Desan, 2014, pp. 1–8). The act of producing money requires both the articulation of the measure and the production of at least one corresponding object that circulates, thereby confirming the measure as an expression of value (Reuten, 1988). These processes do not necessarily have to be conducted by the same authority, and the ability to articulate a money-of-account does not bestow a monopoly on the issue of money (Beggs, 2016; Dodd, 2005a). Indeed, the process of money production and reproduction is a contested process with multiple issuers vying for dominance both within and between denominations (Cohen, 1998). Thus the relationship between different monetary objects is always the result of historically specific contestation as struggle over money.

Some general statements can be made at this point, however, about the general problem faced by monetary authorities, such as the Bank of England. The primary concern is maintaining the credibility of their issue as money (Barkin, 2003). Within capitalism this means that it must both be a viable means of exercising social command

[M–C] and be a viable means of valorising commodities at a profit [C–M′] and be expected to continue being so: a fact realised through the constant use of money in circulation (Marx, 1974, pp. 116–118).

If either of these conditions is undermined, then an issue may find itself replaced and the monetary authority's position may be challenged (Andrews, Henning, & Pauly, 2002). This may occur at two different levels. An issue may lose its position as a member of a set and find itself replaced by a different issue of the same denomination. Equally, at a general level, the denomination may lose its credibility and all issues of that denomination may be threatened. In short, there may be a crisis of a particular money or of money in general. Or to place it in more concrete terms, the Bank of England encountered the failure of Northern Rock in 2007 as a crisis of a particular money — Northern Rock's deposits. But it faced the aftermath of Lehman Brothers as a crisis of money in general, as the entire banking system faced failure, risking all Sterling deposits.

The following develops at a relatively high level of abstraction the way the three main types of money — commodity, fiat and credit — are produced, reproduced and contested. The order of exposition is one of analytical complexity not historical development. This allows the identification and elaboration of a series of regulatory processes and subordinate requirements for money production and reproduction.

## Commodity Money: One Money, One Authority

The simplest and earliest form of money is commodity money. This would normally take the form of coins minted from precious metals by a certified authority — the mint. Their value and use in exchange were theoretically the result of their substance as precious metals and the need to pay taxes with appropriately minted coins (Ingham, 2004; Wray,

2015). This would then guarantee their use in exchange, as taxes drove the demand for them and their value was secured by their substance.

In principle, then, commodity money would be self-regulating. Due to its intrinsic value, if there were not a suitably profitable means of employment, either in consumption or as capital, the holder of commodity money would simply withdraw it from circulation and form a hoard (de Brunhoff, 2015, pp. 32–33; Lapavitsas, 2000, p. 643). Money would then be released from the hoards as and when profitable employment returned (Marx, 1970, pp. 104–107, 126). Thus, the moments M–C and C–M′ would be mediated by the surplus of commodity money previously held idle (Marx, 1974, p. 134).

The reality, however, was that commodity money was almost always in short supply and was valued at above its substantive value. Gold and silver scarcity was a recurring and persistent feature of premodern exchange (Di Muzio & Robbins, 2017, pp. 61–63). The development of capitalism as a process of expanding value, M to M′, was facilitated by the influx of both gold and other commodity metals from the colonisation of South America (Ferguson, 2008; Galeano, 1973; Vilar, 1984) and the development of credit money as a means of overcoming the limitations of commodity money (Ingham, 1999). Even the 19$^{th}$-century gold standard, which was a system based largely on the circulation of credit money, tended to generate deflationary pressures punctured by gold rushes as new sources brought new supplies into circulation (Wood, 2005, pp. 273–274), such that the Bank of England, the primary authority behind the standard (Eichengreen, 1992), was regularly forced to cease convertibility due to shortages of gold (see Clapham, 1944a).

This problem of a shortage rather than a surplus of the base material for commodity money meant that commercial enterprises faced a constant risk of default and failure. Falling prices would risk nominal returns below those necessary to realise a profit and meet contractual obligations such as wages (Polanyi, 1944, pp. 201–207). Thus it would be common for local alternatives to circulate alongside the official currency, which led to a 'tiered monetary order' of local tokens and national money (Gilbert & Helleiner, 1999, p. 3; see also Marx, 1970, pp. 110–113). This environment of shortage also allowed for the circulation of debased, worn and clipped coin on a par with freshly minted coins and the extraction of seigniorage by states as an accepted form of taxation (Knafo, 2013, pp. 47–52).

At the same time, opportunity for debasement and seigniorage was limited by the competition between states for the scarce base material of coinage and for monetary dominion, as different denominations would regularly circulate alongside one another (Cohen, 1998). This was to a certain extent overcome through the use of bimetallic standards, where two commodities (gold and silver) would answer to the same title. This masked the implications of reminting by adjusting the ratio of conversion between the two, a feature which also allowed for the management of national and international circuits, as gold tended to be used for international exchange while silver predominated nationally (Knafo, 2013, pp. 47–50).

Thus, even commodity money was an actively managed money, which rested on the credibility of the mint as a monetary authority and its ability to attract bullion for minting and circulation. State violence would also have to be leveraged to preserve the value of coins by punishing forgery and securing the collection of taxes to drive the demand for its coin (Ingham, 2004). At the same time, the credibility of its issue was

partially based on the ability of its coin to be converted either into another state's — through reminting — or its base materials (Graeber, 2011, p. 213). When faced with a self-interested and arbitrary monetary authority — the early modern state — the ability to convert a given coin into another's was important in securing its acceptability by merchants as traders in uncertain times.

Thus, the study of commodity money reveals two important processes in the production of money. First is the role of hoarding as a regulatory process, whereby monetary circulation is characterised by a process of "efflux" and "reflux" from hoards. This is a process which maintains the circulation of money by interrupting it (de Brunhoff, 2015, p. 42), an interruption which in crisis can spiral downwards, as the withdrawal of funds against uncertain futures undermines the ability for money to operate as the moment C–M′, as in 2008–09. Secondly, there is the importance of convertibility in securing the credibility of money through the linking of national and international circuits. Given a money of uncertain credibility, the ability to convert it into another, albeit at a price, secures the temporal validity of the issue, which in turn reveals the essentially hierarchical nature of money — a hierarchy at the top of which today sit central banks. It is with these themes of hoarding, convertibility and hierarchy in mind that we move on to fiat money.

## Fiat Money: Two Moneys, One Authority

Fiat money is money that is created by the decree of an appropriate authority — normally the state. Its substance is the authority of the issuer and its social position as money — the willingness of society to accept the authority of the issuer (Beggs, 2016). Thus, unlike commodity money, whose position as money is secured by a combination of the authority

of the issuer and its transmutability, fiat money is based entirely on its acceptance in exchange (Marx, 1970, p. 121).

This can be the result of any number of processes. The most obvious is the ability of the state to declare its issue legal tender and to enforce its acceptance in exchange and the payment of debts and taxes through violence (de Brunhoff, 2015, pp. 46–48; Ingham, 2004; Wray, 2015). Equally customary practices can establish and stabilise the use of otherwise worthless tokens in exchange through their repetitive use and thus their constant affirmation as money (Marx, 1970, pp. 116–117).

In terms of regulation, there are two key distinctions between fiat and commodity money. First, the position of fiat as money depends entirely on its acceptance in exchange both as social command [M–C] and as a means of valorising product [C–M′]. Unlike commodity money, it cannot be repurposed in any way. Secondly, the quantity in circulation is predominantly exogenously determined and its value is thus set by its ratio to the needs of circulation (Hilferding, 2006, pp. 38–47). Thus, while fiat is 'liberated from any physical production constraints' that hamper commodity money (Harvey, 2006, p. 244), it is also more fragile as a social relation in need of conscious regulation.

While a sufficiently credible fiat would also be regulated by the process of hoarding/dishoarding (c.f. de Brunhoff, 2015; Lapavitsas, 1991, 2000), this is only possible if the value of fiat remains relatively stable over time (Harvey, 2006, pp. 245–246). If this is undermined through high inflation, or the credibility of the issuer's fiat is otherwise threatened, hoarders will begin to dishoard fiat in order to realise their hoard's value before it is diminished. This would then trigger further price rises as effective demand outpaces production, leading to further dishoarding and so on. It is worth noting,

however, that there is some scope for inflation before a crisis is triggered. Money is not solely held because of the lack of immediate profitable employment but also as a reserve against uncertain futures (Fontana, 2009, pp. 61–64). This means that the hoarders of money are willing to accept a certain amount of depreciation before abandoning their hoards. Thus the constraint facing fiat currency is not *no* but *low* inflation.

Thus, fiat money rests entirely on the ability of the state to actively manage the money supply in keeping with the needs and rhythm of circulation (de Brunhoff, 2015, p. 33). Any issue above the bare minimum required for circulation in general will risk a dislocation of prices (Marx, 1970, pp. 118–120). However, the creation of fiat is an explicitly political action and thus is open to contestation as authorities come under pressure to use their fiat to accommodate rising costs of production or to achieve other political goals. Furthermore, a reduction in the supply of fiat would require the state to destroy some of the money it collects in taxes (Hilferding, 2006, pp. 55–56). Thus there is a predisposition towards over issue and inflation, which threatens the ability for fiat to act as a store of value and undermines hoarding as a means of regulation.

A similar problem of value in exchange arises when we consider how fiat money relates to other money forms. Up to now we have discussed fiat as the sole money in circulation. Once we introduce the reality of parallel moneys — either of the same denomination or different — the problem of convertibility arises. For the holder of commodity money its exact form is only of limited relevance, as it can be literally transformed into any number of other forms and either sold as a commodity or simply transmuted into a different money (Marx, 1970, p. 107). Meanwhile, fiat money, as the decree of a monetary authority, can only be converted through exchange (Marx, 1970, p.

119). Thus its convertibility is dependent on there being another who wishes to hold it — i.e. its credibility as money.

This problem occurs at two levels: between denominations and within denominations. For simplicity we will assume that there are only fiat and commodity moneys in circulation and that each denomination has only one issuing authority. The first thing to recognise in a monetary system of qualitatively different moneys is that there will emerge a hierarchy between the qualitatively different moneys and authorities. Some authorities' issues will be more desirable than others', either because the transactional domain is larger and more profitable or because its authoritative domain and its credibility are such that it is more reliable and convertible (see Barkin, 2003; Cohen, 1998, pp. 113–118). Thus, monetary authorities need to secure vertical convertibility into regional or global means of payment and exchange. Failure to do so risks a currency crisis, as holders collectively seek to convert their domestic money into the means of international payment, abandoning the domestic currency (Helleiner, 2002). This can be achieved either by guaranteeing convertibility through the amassment of reserves of the global money (Marx, 1974, p. 143) or through the strength of the domestic circuit increasing the demand for the corresponding money (De Grauwe, 1996). In short, the credibility of money is determined not only by its relationship to the domestic but also by its relationship to the international circuits of capital (Clarke, 1988, pp. 115–119) through direct convertibility either into commodities or into other denominations.

At the same time, the existence of two bearers of the same denomination creates a problem of parity. In normal times, commodity and fiat would bear the same value. However, as commodity money is the more secure of the two, it would form the majority of the hoards, leaving fiat as the predominant circulating medium (Hilferding, 2006, p.

55). Thus a hierarchy would emerge whereby fiat would be 'the shadow of gold' (Lapavitsas, 2016, p. 112), either because it was directly convertible into gold at the mint or because it circulated on the premise that it could be converted in exchange and thus hoarded (Hilferding, 2006, pp. 56–58). In short, due to the qualitatively different substances of different moneys, they will come to take on hierarchical and specialised functions and uses while being quantitatively equal (Mehrling, 2000).

Now let us assume a general rise in prices, whereby the nominal value of currency becomes significantly lower than the material price of commodity money. There are two potential outcomes. Either Gresham's law[8] takes hold and the inflation is allowed to continue as holders of gold coin sell it at its base value for a profit — driving out the superior money and worsening the quality of the money supply and thus its stability — or the inferior money becomes devalued as traders refuse to accept it at par if at all. This problem of convertibility exists regardless of the formal relationship, for if convertibility is politically guaranteed through the ability to exchange directly with the authority there will be a run, and if not private exchange will determine the ratio (Marx, 1973, pp. 131–133). Both risk crises of money in general, as money breaks down either suddenly as reserves are depleted or by slowly destabilising the circulation of capital.

Thus this highly abstract analysis of fiat reveals three additional elements of the monetary authority's problem: the need to secure the credibility of the relationship with the circuit of capital; the need to secure the vertical exchangeability with international

[8] "Bad money drives out good" — Gresham's law originally applied to bimetallic standards where a dislocation in the base to actual value of two commodities would see the more undervalued one being withdrawn, converted into bullion and then sold for the one of lower value for a profit (Knafo, 2013, p. 47).

monetary circuits; and the need to secure internal parity between money forms and the internal hierarchies of money. These problems exist for commodity money in the form of the fiduciary component of worn coins (Marx, 1970, pp. 108–111), the problem of securing gold through balance of payments and the instability of bimetallism (Knafo, 2006, 2013), respectively. However, unlike commodity money, where the instability rests on the need to secure access to the scarce money commodity, fiat money is undermined by its tendency towards excess and debasement of the monetary standard. Furthermore, the risk is higher, as there is no external foundation to fiat's position as money.

It is not surprising, then, that fiat money played a limited role in the development of capitalism. In the UK, credit money was a stable medium for over 100 years before fiat money, due to the lack of monetary credibility in the British crown in the 17th and 18th centuries (Giuseppi, 1966, p. 7). However, it serves as a useful analytical stepping point between the commodity money of early modern capitalism and the fully developed credit money that came to dominate as capitalist money par excellence. Credit money shares many of the same problems as fiat. Its substance is a decree of value by an authority that has no use other than as money, and thus its substantive value is determined in exchange. It thus faces the same problems of convertibility and hierarchy. Where it differs is in its mode of production and reproduction as money.

## Credit Money: Multiple Moneys, Multiple Authorities

The development of money and the money problem throughout this chapter has largely focussed on abstract and historical forms that at first glance may appear archaic or irrelevant to the question of central banking in the 21st century. Its purpose, however, has been threefold. Firstly to draw out the underlying money problem that sits at the core of

all monetary regulation — the tensions between M–C and C–M′ and the credibility of the issuing authority in mediating them. Secondly, to demonstrate how this problem manifests itself in other monetary forms alongside their unique problems of production and reproduction as money. Finally, to develop through increasingly complex monetary forms the processes and relations of hoarding/dishoarding, convertibility and hierarchy that shape historical monetary practices. Having established these, we now turn to specific processes and problems of the money form that dominates modern monetary affairs — credit money — a problem which is aggregated in the form of the central bank problem in the final part of this chapter. Next we will start with the "basic" disaggregated problem to establish the foundational dynamics.

First, it is worth briefly recapping here the processes identified for commodity and fiat. Commodity money is created by the direct transmutation of a commodity into money through its division and marking as a denomination. Thus £100 of gold bullion becomes 100 gold sovereigns.

| | **The Mint** | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | Gold bullion (valued at £100) | – |
| **Period 2** | 100 Gold sovereigns | – |

Fiat money is instead created simply by the act of decreeing a set of object money at a certain denomination. Thus the state may simply print twenty £5 notes.

| | The State | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | – | – |
| **Period 2** | Twenty £5 notes | – |

Both of these processes occur on the asset side of the issuing authority's balance sheet either through the transmutation of a commodity or the spontaneous creation of a monetary asset. Credit money in contrast exists as a liability on the balance sheet of the monetary authority, but as an asset on the balance sheet of the holder. This is because credit money exists as a claim upon the assets of the monetary authority. It is issued either in exchange for deposits of money issued by different authorities, essentially acting as a central hoard of money, or through the exchange of credit where a claim on future money is exchanged for the current credit of the monetary authority (Keynes, 1930, pp. 24–25).

| A Bank | |
|---|---|
| **Assets** | **Liabilities** |
| 100 Sovereigns | £100 Deposit |
| £100 Debt | £100 Deposit |

| A Firm | |
|---|---|
| **Assets** | **Liabilities** |
| £100 Deposit | – |
| £100 Deposit | £100 Debt |

In the first case, credit money simply exists at the nexus of monetary hierarchy, hoarding and convertibility, developed though our investigation of commodity and fiat money. In that it exists as a claim upon other moneys. Banking in this sense is simply a process of intermediation between hoarders and those in needs of funds (Harvey, 2006, pp. 262–263). Credit money in this sense makes up only a small proportion of contemporary banking, where it is loans that create deposits rather than deposits creating loans.

Modern credit money instead consists of the second process of ‘maturity transformation’, where current money is created against a claim on future revenues (Werner, 2014). To understand this, we need to include a brief investigation of money as a means of payment. The circulation of commodities includes within it the separation of the moment of payment with the moment of purchase (Marx, 1974, pp. 134–135); indeed, very rarely are the moments simultaneous (Lawson, 2016, pp. 967–968). One normally either pays for the commodity in advance or through the extension of *trade credit* receives the commodity after arranging to pay for it at a later date (Reuten, 1988, pp. 130–131). If the individual’s credibility is insufficient, they may instead seek a more credible authority either to guarantee their credit or to accept it in exchange for money (Hilferding, 2006, pp. 85–86). It is the latter, *monetary credit*, that we are interested in here. This can take two forms: either the lending out of an otherwise idle hoard of money, as was the case pre capitalism (Ingham, 1999), or the substitution of the monetary authority’s credit for the individual’s (Lapavitsas, 1991, pp. 304–307).

Unlike fiat, credit money has an inbuilt regulatory process when determining its relationship to the circulation of commodities. As credit money is extended either against already existing money or against a claim on future revenues, at the moment of its creation it creates the conditions of its destruction (de Brunhoff, 2015, p. 75). In the first case, where credit money is extended against a hoard of money, the credit money is destroyed when certificates of deposit are redeemed.

| | A Bank | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | 100 Sovereigns | £100 Deposit |
| **Period 2** | – | – |

| A Firm | |
|---|---|
| **Assets** | **Liabilities** |
| £100 Deposit | – |
| 100 Sovereigns | – |

In a similar manner, in the process of "maturity transformation", a future revenue stream is exchanged for money and sees the credit money extinguished when it is returned to pay the debt.

| | A Bank | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | £100 Debt | £100 Deposit |
| **Period 2** | – | – |

| A Firm | |
|---|---|
| **Assets** | **Liabilities** |
| £100 Deposit | £100 Debt |
| – | – |

Thus credit money will to a certain extent self-regulate, as it is extended against economic activity (the source of future revenues) and is destroyed upon the completion of that activity (the repayment of the debt) (Harvey, 2006, p. 246). Hoarding takes on a new meaning with credit money, as it is not only the withdrawal of money from circulation as a shield against uncertain futures or due to lack of profitable employment, but also the destruction of money through the repayment of debt. A simple way of conceptualising this is that agents have a hoard which can be either positive or negative. Thus dishoarding can take the form of expanding debts as much as realising previously crystallised funds.

Hoarding/dishoarding thus emerges within credit money as *the* regulatory process of the money supply. However, just as the hoarding of commodity money can risk a crisis

of money by threatening the moment C–M′, the hoarding/dishoarding of credit risks both excessive shortages and excessive surplus, threatening both moments. As it is, the hopes and fears of the future shape the desire to spend today or save for tomorrow. Thus, while hoarding/dishoarding may emerge as the central link between the production of money and the economy, it does not bring with it stability, but can be threatened both by excess and by the credibility of the issuing authorities and thus requires, like all moneys, active management.

Like fiat, hoarding rests entirely on the credibility of the monetary authority whose credit is money. But unlike fiat, credit money has a foundation outside of the circuit of exchange (Lawson, 2016, p. 976). In the case of credit money extended against the deposits of other money, the credit money is directly backed by an alternative monetary object. Meanwhile, that extended against private debt generates its own demand as the means of payment. That being said, for the bearers of credit money it potentially functions as both a claim on the monetary assets of the monetary authority and as a means of paying their debt regardless of its genesis. Thus, the issuer of credit money in an environment of multiple money forms, i.e. where its credit is not the sole money, must mediate current claims with future revenues or risk the credibility of its issue.

Credit money is capitalist money par excellence. It overcomes the problems of scarcity and excess funds by linking the production of money directly to the process of valorisation. It ‘is the child of capitalist production *and* monetary circulation’(de Brunhoff, 2015, p. 74). It is created as M on the premise of M′. Thus money is always available for those that have a sufficiently profitable deployment for it and unavailable for those that do not. This does not mean that it is a stable money form. It still holds within it the essential contradictions of money in capitalism. It is prone to moments of excess

and shortage, as the 'animal spirits' of capitalist accumulation drive the demand for credit and savings (Keynes, 1945, pp. 161–163). At the same time, the problems of convertibility and credibility remain, but are now not tied to state power and violence but instead are backed by private claims on the future. It is this instability and the problems of private banking that form the foundations of the central bank problem as *the* monetary authority of the credit structure.

**The Bankers' Problem**

So far we have only looked at credit money in general as a process. In doing so, we have abstracted away from two further important details of credit money as we experience it as a historical and material practice. Firstly, we have assumed that the issuing authority is the same authority as that which establishes the money-of-account. In reality, it is not the state that issues credit money but private banks which have institutionalised the trust of the credit system and become private monetary authorities (Lapavitsas, 2003, pp. 68–70). For while there is nothing stopping the state from acting as an issuer of credit money,[9] modern credit money developed through private capitalist banking enterprises, which mediated the web of monetary hierarchy, convertibility and maturity transformation for a profit (Desan, 2014; Ingham, 1999, 2004).

This profit comes from the second feature we have abstracted away from — interest. As capitalist enterprises, banks extend credit money in exchange for a share of future revenues (Marx, 1972, p. 339). Thus, from the moment that credit money is

[9] The British Treasury attempted this in the early 18th century and, if it was not for its lack of credibility as a debtor, it could be treasury bills not bank notes that we pay with today (Clapham, 1944b, pp. 10–13, 38–39).

generated, it drives the recipient to seek out surplus, either through profits or through wages above those necessary to survive (Marx, 1972, p. 381). It disciplines both capital and labour, both as money and as debt (Bonefeld, 1995b). Thus, interest rates serve to regulate the circuit of capital by setting the rate at which future surplus must be acquired in order to justify a current expansion of money.

This separation of monetary authorities between the state and a series of decentralised banks who rely on interest payments and the enforcement of debt to survive, like commodity and fiat money, raises specific problems. First, there is the dynamics of monetary hierarchy and convertibility, where banks need to maintain their reciprocal and vertical convertibility into each other's and the state's money. Second, there is the inherently speculative nature of credit and capital and the risk of insolvency as expectations prove unfounded. Finally, there is the risk of over-issue and the need to maintain the social trust placed in their credit. These form the bankers' problems of clearing, returns and credibility, and serve as the foundations of the central bank problem which mediates these at a systemic level.

**Clearing**

The most immediate problem banks face is the need to guarantee the convertibility between their and other moneys. This occurs at two levels: horizontally as qualitatively different credits circulate as nominal equals, and vertically between the banking system and other monetary forms.

The first problem of horizontal convertibility stems from the fact that, in order for a bank to have its credit accepted as money, it must be accepted as a general means of payment (Moore, 2006, pp. 197–201). This means that other banks and creditors must

accept it as a means of discharging their debts (Lawson, 2016, p. 977). This causes relatively little conceptual problem when credit money circulates outside of the banking sector as a means of purchase and payment of trade credit; however, it becomes problematic when we consider the reflux of credit money to the original issuers as the final payment of their debts.

For simplicity let us assume a banking system made up of two banks, Bank A and Bank B (although this can be expanded to any number of banks). Each has extended £100 to a firm, Bank A to Firm A and Bank B to Firm B, which then exchanges it for £100 of the other firm's product and uses the proceeds to repay its initial loan (we have assumed away interest for now). This leaves each bank with £100 of the other's credit, at which point they can choose to either hold it in reserve or demand payment. Assuming they choose to settle the outstanding debts, each is met with a reciprocal claim and thus they "clear".

| | **Bank A** | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | £100 Debt [A] | £100 Deposit [A] |
| **Period 2** | £100 Deposit [B] | £100 Deposit [A] |

| **Bank B** | |
|---|---|
| **Assets** | **Liabilities** |
| £100 Debt [B] | £100 Deposits [B] |
| £100 Deposit [A] | £100 Deposits [B] |

| | **Firm A** | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | £100 Deposit [A] | £100 Debt [A] |
| **Period 2** | – | – |

| **Firm B** | |
|---|---|
| **Assets** | **Liabilities** |
| £100 Deposit [B] | £100 Debt [B] |
| – | – |

If, however, these debts do not mature at the same time (or fail to be repaid) the result is an uneven distribution of claims. Let us assume that Firm A runs a £25 trade deficit with Firm B which deposits its surplus with its Bank B. Bank A is thus unable to meet the claims by Bank B and must either sell the £25 debt owed to it by Firm A or arrange a loan from Bank B. Failure to raise these funds results in a failure to clear and thus bankruptcy.

| | **Bank A** | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | £100 Debt [A] | £100 Deposit [A] |
| **Period 2** | £25 Debt [A]<br>£75 Deposit [B] | £100 Deposit [A] |

| **Bank B** | |
|---|---|
| **Assets** | **Liabilities** |
| £100 Debt [B] | £100 Deposit [B] |
| £100 Deposit [A] | £25 Deposit [B] |

| | **Firm A** | |
|---|---|---|
| | **Assets** | **Liabilities** |
| **Period 1** | £100 Deposit [A] | £100 Debt [A] |
| **Period 2** | – | £25 Debt [A] |

| **Firm B** | |
|---|---|
| **Assets** | **Liabilities** |
| £100 Deposit [B] | £100 Debt [B] |
| £25 Deposit [B] | – |

Thus the key problem for private banks is managing the various flows of revenues with their immediate obligations to settle amongst each other (Goodhart, 1995, p. 5). The result is an overlapping web of reciprocal debts, assets and deposit reserves both between banks and between banks and the non-banking sectors (Minsky, 2008, pp. 256–261). In theory, these will balance out over time, but a particular bank must be careful not to run

persistent or large deficits or risk being unable to sell sufficient assets or raise sufficient interbank credit to make its payments — destabilising its credit as a means of payment.

Alongside this need to settle internally, banks also face the need to convert at par their credit into non-credit forms, such as state-backed fiat or commodity money. Whereas the interbank payments problem is a problem of accessing 'inside' money, in that it is generated by the banking system and thus to an extent fungible (Lagos, 2006), the problem of external convertibility faces banks as a problem of 'outside' money, money which is exogenous to the financial system (Gurley & Shaw, 1960, pp. 272–274). The need to maintain convertibility thus forces banks to hold and manage reserves of this exogenous money (Keynes, 1930, pp. 27–29; see also Chick, 1973, pp. 80–83). This serves as a partial break on the production of money by the banking system, by forcing banks to manage the ratio between their credit and their monetary reserves and thus an increasing marginal cost to credit expansion (Palley, 1991). Otherwise, they would be able to extend money indefinitely, 'provided that they move forward in step' (Keynes, 1930, p. 26).

This need to maintain reserves of the state-issued currency also means that it emerges as the main means of settlement between banks rather than reciprocal deposits. So while banking on the one hand serves to undermine the authority of the state as a monetary authority by removing its monopoly on money creation, the position of its fiat as outside money still gives the state significant leverage (Bell, 2001). This in turn applies

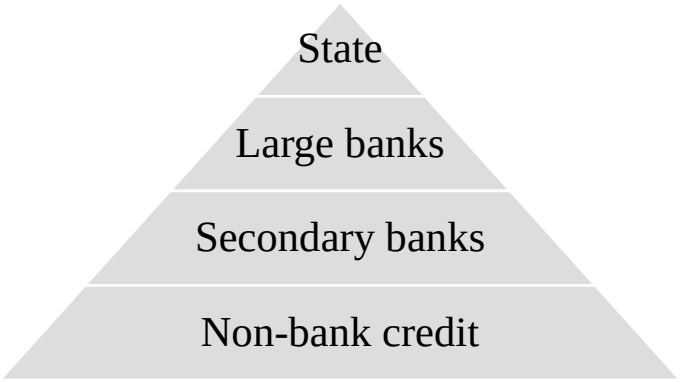



*Figure 2. Hierarchy of credit with no central bank*

to large clearing banks whose deposits circulate as the means of settlement for smaller or secondary banks and financial institutions (Goodhart, 1988, pp. 33–35). Thus credit money is based largely on the existence of a hierarchy of quantitatively identical but qualitatively different monies, where each layer's money can be used in payment of the debts below it and exists as a claim upon those above.

The need to clear outside money thus forms the first and most immediate constraint on credit money and problem for the monetary authority. Failure to do so risks the credibility of the bank and thus the acceptance of its credit as money. This ability to clear, however, is also linked to the second, temporal, problem of returns.

**Returns**

Banks extend money on the expectations of the return of more money. As capitalists they face the circuit 'M–M′, money creating more money, self-expanding value' (Marx, 1972, p. 391). This, like all extensions of capital, is an inherently speculative act (de Brunhoff, 2015, p. 112). There is no guarantee that the funds will be returned at a profit if at all. Bank profits are based on the successes of a range of capitals and thus, while the failure of a single capitalist is bearable, bank capital is still only a generalised expression of productive capital which serves as its foundation (Harvey, 2006, p. 271). Banks are thus

active in the provision of credit, providing and pricing funds with regard to their needs for liquidity and to insure against losses as well as political economy and regulatory factors (Goodhart, 1989). The risk of failure, however, is always present and ultimately the worth of the bank's credit is backed by the realisation of its assets and the successful extraction of surplus (Bonefeld, 1995a).

This presents two problems for banks: one immediate and one ultimate. The immediate problem is that the value of banks assets, and thus their solvency, is based on their *liquidity* and their *futurity*: that is, in terms of expected future money and their current ability to become money. This is particularly important for banks as they economise on their cash reserves by actively managing their balance sheets between reserves, liquid and illiquid assets (Bibow, 2000). These assets are then critical in accessing the necessary funds for clearing either as collateral for loans of outside money or through sale (Hardie & Howarth, 2013), especially with the development of 'market based banking' prior to 2007 (Hardie, Howarth, Maxfield, & Verdun, 2013). This means there is a two-way link between liquidity and solvency as banks and other actors have liquidity preferences which determine the balance of cash, liquid and illiquid assets they choose to hold at different prices and thus their willingness to lend (Chick & Dow, 2002). If an asset class becomes less liquid, this reduces its value — potentially suddenly as holders seek to sell in illiquid markets (Dow, 2014). Equally, a fall in value of an asset can threaten the liquidity of the holder as the potential funds that can be raised fall (Gabor, 2016). Both of which risk contagion as the bank's liabilities (and others assets) become less stable. Thus market liquidity of key asset classes can be critical both for their value and for the solvency of an institution.

At the same time, the market value of assets is based on their futurity (Palan, 2014). Their current value and liquidity are based on expectations about future profitability and performance (Dow, 2014), which in turn determine the cost of credit to the economy and thus shape the actual future performance (Fontana, 2009, pp. 83–84). In the more immediate sense, however, what matters for the solvency of the bank is that the current valuation of their assets is sufficient to maintain confidence in them as the counterpart of the bank's monetary issue.

Beyond immediate market valuation and liquidity, the underlying debts must also be paid. Past extensions of money must be actually realised in production as capital (Clarke, 1988, pp. 91–92) — the moment C–M′. Thus, banks as capitalists face the same tension between the credibility of their issue as M–C and the need for this issue to be returned in expanded form, C–M′. Banks essentially mediate the temporal character of capitalism by using past profits to extend current money against future revenues. In doing so they require the future revenues of their debtors to be sufficient to meet their debts. If this is not the case, then the credibility of the banks' balance sheet comes under threat.

**Credibility**

The first two problems of clearing and returns thus feed into the central problem of credibility. This, as argued earlier, is the central problem of any object positioned as money — it must be credible as money (Harvey, 2006, p. 249). With the case of credit money, this rests on the system of payments and financial assets that make up bank balance sheets. These connections are interlinked, as bank money is accepted in payment today because it is credible as a store of value and it is a credible store of value because it is accepted in payment and exchange today. In other words, credit money is dependent

on the integrity of the credit structure, which is in turn based on expectations of future integrity. Thus, a particular bank's credibility is based in part on systemic performance and credibility.

At the same time, credit money must continue to operate as money and thus must be credible as social command, the moment M–C. In a similar manner to fiat, this requires that there is a quantitative balance between the money circulating commodities and the commodities in circulation. Credit money, however, has an inflationary bias due to the delay between credit expansion and product valorisation (Schumpeter, 1934), the speculative nature of its advancement (Clarke, 1988, pp. 115–119; Marazzi, 2010, pp. 41–43) and the struggle over money between capital and labour (Burnham, 2006, p. 78). Faced with these tensions, individual banks, as profit seekers, will tend to over-lend in order to secure new revenues or market share, securing the necessary reserves post hoc (Chick & Dow, 2002). This means that, while an individual bank may choose not to lend, the banking system will tend to accommodate demands for credit (Moore, 1989).

Thus credit money, due to the fractured nature of its production, tends towards inflationary dynamics. This is not necessarily the same level of threat as to fiat — although it is still a prescient one. Credit money, as credit, bears a rate of interest just like any other financial asset. So banks can limit drains on their reserves by raising the interest rate they pay on their deposits and banknotes. This in turn increases the cost of funding and leads to higher interest rates on lending (Chick & Dow, 2002). As the value of a denomination falls in relation to commodities, banks can avert this by increasing the cost of current expenditure in terms of future revenues (Fontana, 2009, pp. 63–64, 83–84). Thus, while the flow of money into the economy may be relatively unlimited at a given interest rate, there is a drag on its circulation as it is withdrawn into monetary stocks, both

as a hoard against an uncertain future and as a means of securing interest payments (see Arestis & Howells, 1996).

This tension between inflation and the real cost of money leads us back to money as the stuff of struggle. Until now this struggle has been articulated as one between labour and productive capitals over the rate of exploitation, profits and the need to valorise. With the inclusion of interest, this struggle expands to include the cost of money capital (Marx, 1972, pp. 366–368). On the one hand, bank capital needs there to be sufficient funds in circulation to secure safe nominal returns; on the other hand, as capital it seeks to maximise these returns to be positive in real terms. Thus, the struggle over wages and prices extends to the struggle over the price of money as each seeks to make real monetary gains (see Harvey, 2006, pp. 307–315). The struggle over wages, price and interest, as we will come to see, sits at the core of the bankers' problem.

This problem, however, manifests at the systemic level. At the level of the financial sector, the problem is one of coordination when there is the constant risk of failure. The need to accumulate and the need for competition undermine the credibility of credit money, and risks insolvency as returns fail or reserves run dry. For the maintenance of credit money this requires active management by an authority which is able to mediate the contradictions of the credit structure. It is here that we find central banks.

## III.iii. The Central Bank Problem

So far we have considered credit money as based on the foundation of a set external supply of commodity or fiat money upon which the credit structure is built. This bears true for early banking structures, such as the first 100 years of the Bank of England and

British finance where the Bank of England was in essence an alliance of rent-seeking merchants (Broz & Grossman, 2004), or the free banking period of the USA (see McNamara, 2002; Wood, 2005). With its development in the mid-19th century and its formalisation in the early 20th century, central banking now dominates modern credit structures.

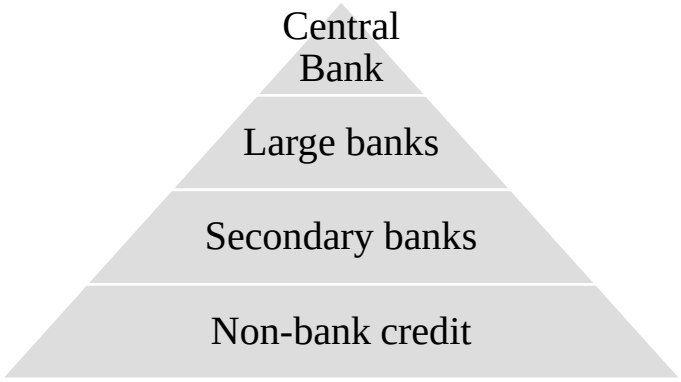



*Figure 3. Hierarchy of credit with a central bank*

Central banking developed organically from within the financial system, as banking capitals sought to overcome the limiting factor of 'outside money'. Over time the reserves of state money became centralised into larger and more stable banks, whose credit in turn circulated as a means of settling transactions between other banks (Goodhart, 1995, pp. 205–207). These reserve banks were then able to exercise significant influence over money markets and the terms of credit, but in turn saw their balance sheets represent an increasingly general expression of capital (Hilferding, 2006, p. 180), both directly through their own loans and indirectly through the loans of their subordinate banks. It was their reserves that would be drained if there was a run on the currency; it was their profits that would be endangered if banks lent too freely or could not access the means of payment (Goodhart, 1988). Thus, increasingly, they took action to regulate and manage

the credit structure, providing lender of last resort facilities in times of crisis and exercising restraint on exuberant markets (Timberlake, 1984).

The establishment of a central bank is the completion of this process by centralising the balances of the financial system onto a single balance sheet. As Forrest Capie (2010) points out in his opening to an official history of the Bank of England:

> No one invented central banking. The earliest central banks emerged from commercial banks. Any central bank that was a central bank from its inception was modelled on one of these ancestors (p.1)

This is not to say that states did not play an important role in the development of central banking (see Broz & Grossman, 2004; Knafo, 2013) or that central banks do not exist today as part of state structures. Instead, it is to emphasise that the central bank problem stems from its relationship to capital and the credit structure, not its historical situation within the state. This enables a reading of the changing role of the Bank of England which both differentiates between different components of the state and links the changing strategies and policies of the Bank of England to its position within British credit structures and British capitalism, thereby providing both a theoretical contribution to the study of the political economy of central banking and the means of underpinning the account of the developments of 2006 to 2015.

The argument for now is that the establishment of state-backed central banks in the early 20$^{th}$ century — either through nationalisation or by construction — served as a compromise between the increasingly important banking sector and the state over the production of money, thereby incorporating the management of credit money into the broader state problem. The implications of this for understanding modern central banking

will be discussed in chapter four. The focus here is to establish the general central bank problem as one of mediating the inherent instability of credit and capital. This requires resolving the problems of clearing, returns and credibility at the systemic level.

## Clearing

The problem of clearing manifests for central banks as both an internal and an external problem. On the one hand, central banks face the aggregation of the need for credit money to be convertible into other moneys, as identified by the orthodox Marxist approach, and their possession of the national hoard of reserve currency. On the other hand, they face the need to maintain the payments system through the provision of the means of payment, which in turn forms the basis of their power and control.

As the bankers' banks, central banks sit at the peak of the credit structure and serve as the final means of reckoning between credit money and other moneys, either as a national hoard of currency reserves or through the management of money. This is not to say that they are always successful or that periods of inconvertibility and disparity do not occur between different members of the same denomination, simply that these periods are unstable and form a critical problem for central banks and banks in general.

In a similar manner, central banks face the problem of guaranteeing currency convertibility with other denominations (Goodhart, 1995, p. 207). Here, however, the problem of parity is less relevant. Instead, it is a political problem of positioning within the international monetary hierarchy and the preservation of the credibility of the denomination. This can be done by providing a formal commitment to currency convertibility, the targeting of a market rate of exchange or by allowing the currency to float, relying instead on the dominance and size of the domestic circuit to maintain the

demand for the associated money (see Cohen, 1998). Regardless of the strategy chosen, the maintenance of the link between the national and international circuits is a concern for central banks — to a lesser or greater degree depending on historical circumstance.

The position of the central bank at the peak of the credit structure, however, is dependent on its reciprocal obligation to manage the means of interbank payment. The position of the central bank is dependent on the stability of the credit structure and the circuit of capital that underpins it. By managing the means of clearing, central banks sit at the immediate edge of a bridge of 'interlocking debt commitments', linking past, present and future payments, where 'failure to make a promised payment can undermine any number of other promised payments, causing the entire web to unravel' (Mehrling, 2011, pp. 3–4). This position serves as both a means of control and a problem for central banks.

As a means of control, central banks are able to shape the willingness of banks to extend credit by adjusting the cost and supply of reserves to the system. This in turn shapes the relative demand for other assets and the relative cost of extending credit by increasing the cost of meeting the corresponding payment (Chick & Dow, 2002). The central bank is not all-powerful in doing this, however, as market liquidity is a direct substitute for public or central bank liquidity (Mehrling, 2011, p. 14). The banking sector can always seek to access funding via money markets rather than come directly to the central bank. Thus the central bank cannot directly set both the market rate and the market supply of funds. Instead, it is restricted to either setting the supply and allowing the cost to vary as supply and demand shift or targeting a market rate and then managing the supply to meet this target (Moore, 1988). As Keynes (1930) put it, 'the central bank is the conductor of the orchestra and sets the tempo' of money creation (p. 30).

At the same time, in managing liquidity, the central bank is also directly managing the relationship between various financial assets and the means of payment. Central bank money is extended in the same manner as any other form of credit money, through a double-sided balance sheet expansion: in other words, through the acquisition of financial assets. This means that the central bank also shapes banking activity through its collateral policy, shaping the liquidity of various financial assets. Taken together, this means that central banks are able to intervene in financial markets and shape them by adjusting the terms of price, demand and convertibility into its credit. This enables the central bank to set constraints on the credit structure by tightening and loosening the clearing constraint for private banks in order to shape the growth of credit money.

As a problem, the provision of liquidity to the banking system and the management of the payments system means that central banks face a tension between preventing payments failure and the need to discipline unstable credit markets. The most common articulation of this is the role of the central bank as "lender of last resort". The lender of last resort function occurs when, due to systemic stress or bank error, a private bank is unable to match its obligations with sufficient funds and turns to the central bank for an emergency loan. In such a situation, the central bank needs to weigh the relative cost of letting the bank fail and providing the loan and thus undermining the monetary discipline of the clearing constraint. The common solution, posited by Walter Bagehot, is for the central banks to 'advance freely and vigorously … at a very high rate of interest … on all good banking securities' (Bagehot, 1873, pp. 196–197), thereby securing the provision of liquidity and preventing downwards spirals triggered by market disruption, but also penalising banks which failed to show due caution in their activity.

In a similar manner, Perry Mehrling (2011) has proposed a ‘Dealer of Last Resort’ role, whereby a central bank uses its balance sheets to ‘post a wide bid–ask spread in the money market and use its balance sheet to absorb the resulting flow of orders’ (p. 28). In other words, the central bank should stand ready to buy and sell an indefinite amount of financial assets at prices significantly below and above the market price and thereby ‘put bounds’ on the market, absorbing extreme liquidity risk (p. 138).

Mervyn King (2016), the governor of the Bank of England from 2002 to 2012, has proposed a ‘pawn broker for all seasons’ (p. 270), where the central bank would agree to lend against pre-positioned assets, but banks could take on liquid liabilities (deposits and short loans) up to the discounted value of these assets (pp. 270–6). In essence, this would force banks to match liquid liabilities to their access to central bank liquidity.

The Bank of England itself developed a ‘Market Maker of Last Resort’ approach in 2015, where it would intervene at its discretion ‘to improve the liquidity of one or more markets’ (Bank of England, 2015, p. 6). This formed the culmination of its post-crisis liquidity reforms. The terms would be determined at the Bank of England’s discretion as long as they did not expose it to credit risk or interfere with the other goals of monetary policy. In essence, this would, if used, create a positive liquidity shock to offset shortages, but provides with no guarantee of such intervention.

Regardless of the actual strategy and policy adopted, the problem is still the same. Central banks need to secure the credit structure: either now by providing the means of payment and in the future by exercising monetary discipline. In crisis, this tension is the first to become apparent, as destabilisation of the credit structure (for whatever reason) leads financial actors to begin to hoard liquidity — thus undermining it. Equally, an

overextension of credit can manifest itself in a currency crisis, where the reserves of the central bank come under threat as money becomes disconnected from the circuit of capital. Thus there is a trade-off between the liquidity needs of the credit structure and those of the central bank. Equally, the inherent instability of credit manifests in the trade-off between current weakening of the clearing constraint to preserve the credit structure today against the stability of the future credit structure as speculation and overaccumulation take hold.

## Returns

The problem of clearing for central banks is linked to the problem of returns. The current ability to pay is based on the actual returns of funds from previous extensions of credit and the ability to raise funds against claims on future revenue streams. Meanwhile, the international convertibility problem is in part overcome through the stability and credibility of the circuit of capital associated with a particular denomination. Thus, the clearing constraint can be understood as the immediate manifestation of the returns constraint.

Unlike the clearing constraint, which is immediate and based on the current ability to pay, the returns constraint is a temporal one. It is based on the current mediation of past, present and future payments. By adjusting the cost of current funds, the central bank is adjusting the cost of funds available for the valorisation of previously extended debt and those available to be extended against future claims. This shapes the actual realisation of past debts and the level of speculation against future revenues.

Credit money exists as capital in motion. It is extended on the expectation of future valorisation of labour or capital. This means that it is inherently unstable for two

interlinked reasons. First, as credit is extended now on the expectation of future returns, it can be used to circumvent market discipline and drive overaccumulation through the continued employment of inefficient and otherwise unprofitable enterprises (Burnham, 2010, pp. 34–36). If this is left unchecked, prices will become increasingly distorted and detached from production, undermining the credibility of money (Burnham, 2011, pp. 496–497) and risking a currency crisis (Clarke, 1988, p. 119). Thus, money must be managed such that productive capital succeeds as capital or face crisis. 'Failure to turn credit into effective command over labour involves insolvency and bankruptcy for capital as a whole' (Bonefeld, 1995a, p. 196).

Linked to this tendency towards overaccumulation, there is the risk of a crisis from within the credit structure. Burdens of debt and excess credit are inherently unstable and asymmetric, leading to the 'inherent instability of credit' (Mehrling, 2011, p. 12). Assuming that monetary discipline is maintained, this can be a good thing, as it forces failure and provides space for renewal (Schumpeter, 1934). However, it also allows for speculative bubbles where money is extended in order to purchase financial assets — claims on future funds — driving up their current value. This can take on a dynamic of its own, if the rise in market price is higher than the cost of new funds and spreads across the credit system, as higher asset values mean more collateral and thus cheaper credit (Mehrling, 2011, pp. 14–15). This opens the risk of crisis, as the market value fails to be realised and confidence collapses, driving down all asset values and thus the ability to raise funds for the entire economy (Harvey, 2006, p. 250).

These dynamics, however, are linked and indistinguishable in practice. Crises of overaccumulation through a lack of monetary discipline lead to an overflow of funds into financial markets (Bonefeld, 1995a). A speculative bubble in financial markets in turn

leads to a general cheapening of credit and thus weakens monetary discipline (Mehrling, 2011). Thus the central bank problem, as a general expression of capital through the credit system, is how to exert discipline on finance in such a way that it does not threaten the viability of the credit structure by preventing a sufficient level of valorisation — the tension between M–C and C–M′.

In a similar manner to the clearing constraint, this needs to be managed with a view to both the needs of money as credit and the needs of money as money. In terms of the credit structure, the adjustment of the cost of funding shapes the immediate solvency of banks, as funds become more or less readily available for payment. At the same time, it shapes the demand for different classes of assets and expected returns in the future, affecting the solvency of banks' balance sheets as assets rise and fall in value (Chick & Dow, 2002). Thus monetary easing serves to preserve the credit structure by easing the cost of funding and raising asset values.

This, however, also accelerates the extension of overaccumulation and speculative bubbles, as the cost of fresh credit falls. Thus, the cost of facilitating current valorisation occurs in the future, as more capitals fail to valorise. The problem is that capital failure presents itself as a trade-off between inflation and default, either the complete devaluation of some assets or the lower devaluation of assets in general. This is the core of the central bank problem (Burkett, 1989, p. 85). Central banking requires a balancing of the immediate demand for the means of valorisation of particular capitals and the need of capital in general for money to be preserved as social command.

In short, central banks set the tempo of capital accumulation by shaping the level of expected profits required to secure funding and the intensity of competition to valorise

product today. In doing so, they are able to curb the instability of credit by forcing current losses or to ease crisis by facilitating valorisation. Again, this power is not absolute, as speculative bubbles simply require that the expected rise in asset value remain higher than the cost of funding. Instead, the rise in the cost of credit serves to force failures in general to those with the weakest liquidity position — not necessarily those who are driving the instability — who in turn seek to liquidate their assets (Mehrling, 2011, pp. 16–17). This drives down demand and forces losses on those exposed and thus results in further deleveraging, setting a chain in motion which eventually stems the over-extending units. This indiscriminate nature of liquidity intervention means that the central bank is reliant upon a circuit that can bear general losses. If the circuit of capital cannot, the stemming of the destabilising credit cycle can force a general crisis as the circuit is disrupted, putting at risk the foundation of the credit structure.

## Credibility

Finally we come to the problem of credibility. As argued already, the ability for credit to operate as money is based on both its actual use and its expected future use as such. This means that current monetary activity — consumption, investment, hoarding/dishoarding etc. — is based both on current monetary conditions and on expected future monetary conditions (Keynes, 1930, pp. 159–160). Thus, it is important that strategies are not only effective but are also *perceived* to be correct and effective (Kirshner, 2000). This maintenance of expectations and thus credibility is important at both the nominal and the real level.

In terms of the nominal level, inflationary dynamics undermine the international credibility of a currency, as it ceases to be a credible store of value and thus a means of

extracting surplus. Thus, ‘the search for counterinflationary credibility is of paramount importance both rhetorically and materially’ (Burnham, 2001, p. 135; see also Begg, 2009). This requires both the enforcement of adequate monetary discipline and the engagement in strategies that are *perceived* to be effective by key national and international financial actors (Cerny, 1994).

Thus, central banks engage in a variety of communication strategies to shape the expectations and thus the behaviour of economic actors — national and international. This can take a variety of forms, from encouraging an aura of mystique to the use of technical language and transparency combined with credible action (Siklos, 2002, pp. 20–22; see also Solomon, 1995), pushing actors to pre-empt central bank action and thus make it unnecessary (Jabko, 2009). Each of these is aimed at maintaining the confidence of financial actors in the central bank as a monetary manager and thus the credibility of both its issue and the credit structure that it stands behind. A threat to this credibility can spell the death knell for a monetary system.

In short, the central banking problem faces three interlinked problems: the immediate problem of monetary payment and conversion as the mediator both within the credit structure and between it and other monetary forms; the temporal problem of the inherent instability of credit and capital; both of which are based on and serve to overcome the problem of credibility of credit as money which is centralised in the central bank. These problems do not have solutions, but instead are the manifestation of the inherent contradictions of money in capitalism. Central banks instead form various strategies in order to mediate these tensions, to various levels of effect. The specifics of the problem faced and the strategy employed to mediate it are the subject of historical study rather than general principle. The rest of this thesis is one such study.

## III.iv. Conclusion

By approaching the study of central banks from the vantage point of money as a capitalist social relation, this chapter has overcome the limitations of the orthodox Marxist approach to the central bank problem. Instead of focussing on the problem of convertibility and the link between national and international monetary circuits, the approach adopted here includes this within a broader problem of maintaining money as credit. This broader problem manifests as the systemic problems of clearing, returns and credibility, which are in turn manifestations of the basic contradictions of money in capitalism. It is this problem of mediating the tensions between the moments M–C and C–M′ and the internal instability of credit as money which frames the rest of this thesis.

This theoretical contribution allows for a reading of the crisis and the subsequent developments as a process of strategy formation, where the Bank of England seeks to mediate the contradictions of money in capitalism. In doing so, it responds to successive crises of money. First there was the failure of a particular money in Northern Rock, which it sought to absorb through its existing strategy of 'market discipline', and then a crisis of money in general with the failure of Lehman Brothers. This transformation meant dealing with a crisis of money as credit, as the ability for banks to clear and secure funding seized. Then there was a crisis of money as a means of exchange when the moment C–M′ came under threat as banks deleveraged and households hoarded. Finally, the Bank of England encountered a crisis of money as capital, when the UK economy entered a period of slow growth, high indebtedness and falling wages. Each of these engendered a series of reforms covered throughout the rest of this thesis.

It is important to recognise, however, that the central bank problem has been developed at a relatively high level of abstraction and cannot be directly applied, but requires a process of deabstraction to the historical specifics of a given central bank. Indeed, the development of money and central banks has been articulated here largely independently of the historical interplay between credit structures and state actions, actions which played a critical role in the development of modern credit structures and central banking, as states sought to exert control over the excesses of finance, and finance, in the same manner as any capital, sought to transcend these barriers (Knafo, 2013). The decision to abstract away from these historical factors was, as articulated at the beginning of this chapter, to develop the general problem faced by central banks as monetary authorities (as well as states) before exploring the historically specific crystallisation of this problem in the UK from 2006.

The subsequent chapter thus situates this problem within the institutional and political dynamics of 2006. It develops how the Bank of England and the British state relate as crystallisations of the money and state forms and the implications of the move to central bank independence in 1997 for the development of monetary strategy. Chapters five and six explore how this initial strategy of enforcing market discipline both came into conflict with the political objectives of the British State and reached its limit in 2007–08. The subsequent reforms to the Bank of England and the development of a new strategy of discretionary market management are then developed, drawing out how the shifting strategies of the Bank of England and the British State shaped and were shaped by the use of 'extraordinary monetary policy'. Neither of these strategies of market discipline or discretionary intervention serve as solutions to the problems of credit money. Rather, they are seen as momentary attempts to delay and overcome the crisis ridden nature of

capitalism as a mode of production, which will be subject to future challenge and reform as capital continues to convulse.

# IV. Central Bank Independence and the 2006 Reforms

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No one invented central banking. The earliest central banks emerged from commercial banks. Any central bank that was a central bank from its inception was modelled on one of these ancestors

(Capie, 2010, p. 1)

Central banks bridge the gap. We represent Whitehall in the City and the City in Whitehall

(George Blunden quoted in Solomon, 1995, p. 33)

The clear separation of responsibility for setting the inflation target (the political decision) from responsibility for achieving it (the technical decision) also helps to ensure that the government and the Bank are separately accountable for their respective roles in the monetary policy process

(George, 2001, p. 73)

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The central argument of this thesis is that the reforms of 2006 to 2015 can be understood as a process of strategy development in response to a series of crises of money. The Bank of England, as a central bank, faces a distinct problem of mediating the contradictions and tensions involved in the production and reproduction of money as credit. However, central banks do not exist in isolation but must contend with other actors, most importantly the state, in developing its strategies. Equally, the problem itself is highly abstract and the particular manifestation is dependent upon the historical conditions faced

by the Bank of England. Thus the highly abstract "central bank problem" must be situated both theoretically in relation to the state and the "state problem" as well as the historical conditions of financial management.

Since the early 20th century, central banking has become a central component of state policy. The development and purview of central banks, however, predate this. The Bank of England, for example, was only nationalised in 1946. While monetary policy had become an issue of public concern as early as 1810 with the Bullion Committee, the 1929–31 Macmillan Committee actively sought to maintain the Bank as a private institution, 'independent of political influences, yet functioning solely in the public interest' (Committee on Finance and Industry, 1931, p. 119) understood as 'the safety of the financial system and the economic welfare of the country' (p. 16). Indeed, nationalisation did not imply complete subservience to broader state structures; rather it normalised the de facto working relationship between the Bank and the Treasury (Fforde, 1992, p. 4) and leading to no meaningful changes in the Bank of England's operations (Hennessy, 1992, p.63).

The Bank remained largely autonomous within state structures until the 1959 Radcliffe Committee and the mismanagement of monetary policy and economic crisis in the 1970s led the Treasury to assume dominance (Burnham, 2007). This only lasted until 1997, when the Bank was granted operational independence. This independence and the associated "tripartite" structure then served as the institutional foundations of the management strategies of the Treasury and the Bank pre-crisis and the development of the 2007–08 crisis response.

Despite this mixed history and the relatively brief period of politicised management and political subservience of central banking, the emphasis of the independence literature has been on the state. The underlying assumption is that central banks, as regulatory agents, form part of "the state" broadly defined. The global move in the 1990s towards central bank independence [CBI] is thus understood as state managers making a commitment to (Dellepiane-Avellaneda, 2013) or depoliticising (Burnham, 2001) a specific set of monetary policy objectives. The state is positioned as the primary — or principal — actor which directs the subordinate central bank as its agent (Elgie, 2002; McNamara, 2002b). Central banks are implicitly understood as essentially politically neutral agents that simply perform the tasks set by state managers.

The consequence of this approach was that questions of correct mandate and institutional configuration (Berman & McNamara, 1999; Cukierman, 1994; Elgie, 1998; Issing, 2008; Padoa-Schioppa, 2004; Siklos, 2002) and regulatory capture due to the close relationship with financial actors (Bowles & White, 1994; Solomon, 1995; see also Young, 2012) came to predominate. How central bankers may use and interpret this independence and the implications for broader dynamics of relations between central banks, states and financial sectors were left relatively undeveloped. Equally, the question of how independence would form part of and shape central bank and state strategies was largely developed from a state perspective (e.g. Burnham, 1999; Maxfield, 1997; McNamara, 1998). This chapter seeks to address this shortfall by taking the longer view and understanding central banks and states as deeply connected but conceptually distinct institutions whose relationship shifts over time as a result of internal and external struggles and strategies. Central banks are understood as active rather than passive policy actors.

The implications of the shifting relationship between the British State and the Bank of England and in particular the impact of the 1997–2000 reforms for the development of economic management strategies for the British State and the Bank of England prior to the crisis are the focus of this chapter. Firstly, it is important to distinguish between the problems faced by central banks and those faced by nation states in managing capitalist social relations. Namely that the state, as 'the political form of capitalist social relations' (Burnham, 1995, p. 96), exists as a twofold institution. The state is both the site of open struggle over the current order and the enforcer and regulator of this order. The central bank, on the other hand, is a monetary authority engaged in the production and reproduction of credit money and its inherent contradictions. Both of these sets of relations are riddled with tensions and have underlying preconditions that must be met in order for a state or a central bank to survive (although this by no means guarantees that the historic agents engaged in decision making will actually achieve this, or desire to) or they will cease to exist as states/central banks. Thus each engages in a range of strategies to limit, resolve and overcome the problems they face and, when necessary, manage crises.

These strategies are not always complementary. In fact, the management of crisis can cause sudden divisions between state managers and central banks. Crisis, as either a sudden event which requires immediate action or a protracted condition which threatens the existence of the system (Gamble, 2014, pp. 27–32), necessarily reduces the resources, temporal or material, available to economic managers and thus there may be a lack of policy space to accommodate conflicting preferences. This often leads to a fracturing of the system and a breakdown of previous policy consensus (Gourevitch, 1986, pp. 17–22). Thus states' broader concerns with containing social struggle and maintaining capital

accumulation may come into conflict with the central banks' desire to maintain a credible money supply and the stability of the credit structure. The implications of this for conceptualising state/central bank relations is developed as occurring over three interconnected areas: monetary policy, financial regulation and fiscal policy. Each of these involves a different power dynamic — other things being equal. Central banks take primacy in monetary policy, states in the development of regulation, meanwhile a dynamic of market maker (central banks) and central supplier (states) exists in the market for sovereign debt and thus fiscal policy. This interdependence leads to the development of policy either as a compromise or coordination between central banks and states as a part of broader strategies.

Also strategies are not developed in isolation but are a result of the particular institutional configuration of state/central bank relations determining the available strategies in response to underlying problems. In particular, the legal position of the central bank and its potential politicisation give scope for the state simply to override central bank objections. Equally, the dependency of the state on finance for funding and the needs of money may place limits on state power. The second part of this chapter then looks at the implementation of independence for the Bank of England in 1997 and the implications for both state and central bank strategy. For, while the Bank gained formal independence from the Treasury, it remained part of broader state structures (see HM Treasury, 2002, pp. 96–109). It also lost direct control and influence over the management of issue of sovereign debt and financial regulation and supervision, which were stripped from the bank and placed in the Debt Management Office and Financial Services Authority, respectively (HM Treasury, 2002, p. 50).

The chapter then closes with an analysis of the 2003–2006 Money Market Reforms and the development of the Bank's new strategy under the stewardship of the new Governor, Mervyn King. This is seen largely as a response to and development upon the 1997–2000 reforms. The result was a money management strategy orientated towards the mandated inflation target by making the official bank rate effective. This was achieved through "market discipline" as the primary governing strategy. The implication was that banks must be allowed to fail and be penalised for poor business decisions. This set the foundations for the Bank of England's approach to crisis management in 2007.

## IV.i. Central Banks and the State

This thesis provides an analysis of the changing role of the Bank of England from 2006 to 2015 by focussing on the development of strategies in response to underlying structural problems faced by both the Bank and the British State. The importance of this approach is that it allows for historical factors, such as institutional and personal relations, to shape policy outcomes and play a role in analytical accounts. It does, however, do this without providing a "one-sided" account where these become the primary causal factor, instead emphasising the interconnection between different parts of the problems faced by different social forms — state and central bank — which are then mediated by these other factors. So before analysing the strategies for monetary, financial and economic stability under the tripartite system, we first need to develop the particular problems faced by central banks and states as contradictory social forms, thereby drawing out the interconnections and potential points of tension and conflict over policy decisions. Specifically, how does the central bank's emphasis on maintaining the monetary structure upon which it rests potentially conflict with the state's broader concerns about social

unrest and economic growth? This tension potentially manifests in conflicts over monetary, regulatory and fiscal policy.

## The Central Bank Problem: A Reprise

The raison d'être of the central bank is based on its position within the hierarchy of money as the bankers' bank. Like any bank, the social power of the central bank is premised on the social acceptance of its credit as money — its credibility as a monetary authority. This credibility is dependent upon two different and contradictory components. Firstly, there is the credibility of the money supply in general as a means of social organisation — i.e. as money. This requires maintaining the links between money as command over the means of production [M–C] and money as means of valorising the results of production [C–M′]. This places constant tension between the need for an abundance of money to ensure the profitability of capital but also the need for a shortage to limit the costs of production.

Secondly, there is the maintenance of credit money as money. The central bank sits at the top of a system of credits and debts, which circulate as money. Its credit is the 'best money' of a monetary system (Mehrling, 2000b, p. 366) and acts as the ultimate means of payment and settlement. Central banks, as the bankers' banks, set centrally the terms of settlement between financial institutions via the quantity and price of reserves (Chick & Dow, 2002). Thus they are able to 'lean into the wind' of exuberant money markets and provide liquidity and support in times of contraction or crisis (Goodhart, 1988, p. 55). However, the money supply is predominantly constituted of credits extended by other banks on the basis of the demand for credit, the availability of adequate collateral and enterprises and the cost of central bank reserves (Moore, 2006, pp. 201–202). Thus,

the position of the central bank rests on the stability and functioning of the credit system and its ability to meet the needs for abundance and scarcity of money.

However, private banks are capitalist enterprises who have been able to position themselves as monetary authorities (Lapavitsas, 2006). There is also 'no limit to the amount of bank money which the banks can safely create provided that they move forward in step' (Keynes, 1930, p. 23), as their reciprocal debts cancel each other out. Thus, the banking system is constantly prone to oversupply credit (Minsky, 2008, p. 278). This risks crisis, as banks become unable to make their payments to one another, debtors default and force losses onto banks, and ultimately their credit ceases to become acceptable as money. Which, due to the interconnected nature of banking, risks not only the single institution but all others that are exposed financially or through reputation contagion undermining the credibility of their credit — posing problems of clearing, credibility and returns. The resulting crisis places at risk the entire structure and thus the central bank itself.

The problem facing the central bank, then, is one of managing money both as a social relation and as private credit. In practical terms, this means regulating the liquidity of financial markets, supporting the credibility of banks and the viability of their balance sheets. This does not mean that the central bank will necessarily bail-out or support any bank that fails through lender of last resort facilities [LoLR] or recapitalisation — although the Bank of England did develop this reputation in the 1970s and 1980s (Interview, Macpherson, 2017). Rather, the point is that central banks will be predominantly concerned with these problems with a view to securing the continued stability of the money relation and the credit structure. As in 2007, the Bank of England

may choose to make an example of a failed bank (Northern Rock) to discipline others, rather than provide aid and risk moral hazard.

In practical terms, this leads central banks to be concerned with not only the setting of the cost and availability of the means of payment but also with financial supervision and economic management. In the UK, both of these functions predate the Treasury's involvement. The Bank of England developed banking supervision as a condition of its lender of last resort facilities in the 19th and early 20th centuries, through informal networks (Goodhart, 1988, pp. 7–10) that steadily became formalised between 1947 and 1979 (Gardener, 1986, pp. 70–79). Equally, the 1920s saw the Bank use its position as the bankers' bank with private customers to facilitate industry restructuring and emergency lines of credit to various key sectors (Sayers, 1976, pp. 156–157) and effectively became 'the chief regulator of the country's economic machinery' (Sayers, 1976, p. 146), a role that was only taken on by the state over a decade later. Importantly, what this implies is that a central bank draws its position and power from its role as a systemic creditor, as the bankers' bank, not from its relationship to the state. It thus in turn faces a different but linked set of problems to those of the state.

## The State Problem

Whereas the central bank's problem is linked to its position as a monetary authority and the contradictions of money as a means of social organisation and a credit relation, the capitalist state draws its position from and thus faces the contradictory problems of the separation of the political and the economic in capitalism. A key feature of capitalism is the separation of the state from the relations of production (Holloway & Picciotto, 1977, p. 79). Feudal society was directly political because the power of the state was directly

expressed in social and economic relations between the sovereign and the lord, and the lord and peasant — thus appearing as the particular will of a ruler upon his subjects (Marx, 2009 [1844]). Capitalism, however, is based on the principles of private property and free exchange between private individuals (Hayek, 1982, pp. 102–107).

In order for the market and money to operate as a means of social organisation, they must be depoliticised as social relations (Bonefeld, 2012). The notion of exchange in the market must be between two nominally equal individuals engaging in mutually beneficial exchange (e.g. Smith, 1910). However, the reality of inequality between labour and capital places this appearance of mutual benefit and equality at risk and must be regulated and enforced (Marx, 1934, p. 104). The maintenance of property relations is not naturally occurring, and in previous societies it would have been maintained internally through the social practices of production, but in capitalism it must be maintained externally (Holloway & Picciotto, 1977). It is this dual position of the separation of the political from the economic and the enforcement of the depoliticised relations of private property and market exchange as a means of social organisation that sits at the core of the capitalist state.

Thus the state 'as the historically specific condensation of the 'political' in capitalism' (Burnham, 1995, p.93) seeks to define and enforce 'collectively binding decisions upon the members of a territorially defined society in the name of their common interest' (Burnham, 1994b, p.3). Thus states must:

> suture the social order, contain the inherent antagonisms of the social order and reduce other claims of speaking as "the people" to unarticulated and nonsensical

> noise, by claiming they speak in the name of "the people" as an undivided "one". (Swyngedouw, 2014, p.126)

Thus the state faces the constant problem of not only protecting capital from the demands of labour but also the containment of interclass struggle by subjugating them to the "general interest" either by co-option or coercion (Rancière, 2003, pp. 28–29).

It is from this angle that the state approaches the problem of money and financial management. Whereas central banks are primarily concerned with the maintenance of money as a social relation, the state is concerned with money due to its effect and role in capitalist accumulation and class struggle. The tensions between the moments M–C and C–M′ are important for the state, as they are moments of struggle both between capital and labour and between individual capitals. The tension between the need of an individual capital to be able to valorise its product in sale [C–M′] due to an abundance of money conflicts with the need of capital in general to secure cheap means of production [M–C]. At the same time, labour constantly seeks to secure better conditions, placing pressure on the circuit M–C–M′ by reducing the gap between M and M′ through rising wages, which must be offset through rising prices (Harvey, 2006, pp. 313–314). Thus capital in general needs prices and wages to be bound either by money or by state regulation; meanwhile, individual capitals will seek to overcome this constraint (Clarke, 1988, p. 123). This thereby places the class struggle over wages and prices in the state rather than the workplace (Harvey, 2006, p. 315). Thus both money and the state are 'the object of class struggle, as capital and the working class confront them as barriers to their own social reproduction' (Clarke, 1988, p. 16), but the state faces this directly as a problem of struggle, while the central bank faces it indirectly as a problem of monetary stability.

At the same time, money management also poses potential benefits to nation states as a means of economic management to alleviate the costs of crisis and ease class struggle through cheap credit for consumption and investment (Clarke, 1988, pp. 144–147). It also shapes notions of commonality and collective interest through the creation and articulation of national identity through political symbolism on monetary media (de Goede, 2005, pp. xvi–xxi). This provides the state with important tools to both mediate struggle and reiterate its position as the political authority.

Finally, the state is also financially constrained, as it can no longer easily use its political position to extract resources directly (Clarke, 2003, p. 38). Instead, it must acquire money through taxation and credit in order to fund its operations, linking its practical survival to the profitable accumulation of capital. Thus, for the state, money appears as a central problem of conflict and struggle; both as a means of mediating and overcoming conflict and struggle and as a constraint on its actions.

In response to this and other sources of social antagonism, states engage in a range of governing strategies, which include but are not limited to: incorporating antagonistic or critical institutions into the state structure; engagement in active economic management; the rule of law and private property; and the (de)politisation of issues in attempts to relocate the site and forms of struggle between the political realm of the state and the depoliticised realm of civil society (Burnham, 1999). In this process, however, a state is also exposed to international capital (and thus international state) relations of competition, capital movement, war, trade etc., which directly and indirectly impact a state's capacity to maintain social relations (Burnham, 1995). In short, the state is 'essentially a regulatory agency' (Clarke, 1983, p.118) engaged in the management of class relations by reacting to, shaping and containing social conflict.

The development of finance and credit money thus represented a boon and a cost to states. On the one hand, it presented a new source of resources for wars, public works and other state functions. On the other hand, the central importance of money in capitalism as the means of social organisation, and the fragility of credit money as resting on a private promise to pay the bearer, risked new problems of financial and monetary stability in bank failure and inflation. The development of central banking practices by the Bank of England — a private bank — and large central clearing houses (see Timberlake, 1984) posed something of a solution. The result was that states sought to capitalise on this by incorporating central bank practices (or even the establishment of central banks) into their governing regimes. States would grant central banks privileged positions as the state's banker, the position of their credit as 'legal tender' and other regulatory and supervisory privileges, in exchange for accepting state intervention in their policy making. As Broz and Grossman (2004) point out, the 1844 Act, which solidified the Bank of England as the central bank, was the result of a series of negotiations between the Bank's proprietors, who saw the government as a source of economic rents, and the government, which sought to borrow cheaply.

Modern central banks have largely become incorporated into broader state strategies and structures, meanwhile also facing distinct and potentially both complementary and conflicting underlying problems. As part of the state system they possess legal privileges and powers, most notably the position of their deposits to be used as the ultimate means of settlement, but also other legal powers of supervision and regulation. Separate from this, central banks are defined by their position as the highest monetary authority in a given financial system, where the state is an important but ultimately subordinate financial entity. This creates an interplay of power between the

central bank and the state. For, while the state remains in absolute terms dominant, it is also dependent on the central bank's credibility as a monetary authority in order to secure its goals and political benefits of national cohesion, public revenue and economic management. Furthermore, the central bank sets the broad terms of funding and credit, which directly impact the fiscal position of the state. Similarly, central banks have become increasingly dependent upon state regulation and legislation to maintain financial stability. Thus, the different problems faced by states and central banks combined with their interdependence open up space for contestation and tension between them.

## Points of Tension

In terms of policy objectives, the state and central banks share similar concerns. Both are concerned with the maintenance of the money form, which requires nominally profitable economic enterprises in order to generate returns and stable financial institutions to maintain its credibility. Where they differ is in how they approach these problems and the trade-offs between different policy combinations. While central banks approach the problem of money and money management from the view of the internal stability of money and the credit structure, states approach it from the broader stance of money's role as the stuff of class struggle, which must be contained and mediated through economic and political strategies. To put it simply, the central bank is concerned with the economy and social struggle to the extent it destabilises money and the credit structure, while the state is concerned with money and the credit structure to the extent it destabilises the economy and class struggle.

In terms of policy tools, then, states and central banks have three broad points of potential contention: the monetary policy of the central bank, the design and operation of

the regulatory architecture and the use of fiscal policy by the state. Each of these deals with a different element of the monetary system and mediates different sets of contradictions and tensions. Monetary policy sets the cost of funding for the system, thus impacting the capacity to clear and cost of credit for private and public actors. Fiscal policy, or more importantly the management of government debts, directly impacts the money supply as well, albeit through a different mechanism, as sovereign debt is both fresh credit money and the foundations for 'shadow money' (Gabor & Vestergaard, 2016). Finally, financial regulation and supervision are critical for ensuring a stable financial sector and limiting individual and systemic risks from threatening overall credit creation. However, they also shape how financial institutions act and how money is created. The implications of these three policy areas for state–central bank relations is central to this thesis' analysis of the changing role of the bank of England and they are outlined below.

**Monetary Policy**

Monetary policy, understood as the management of the supply of funds to the financial system, necessarily sits with the central bank as the bankers' bank. However, as established, it has sweeping implications for the state, as it shapes the availability of credit and money for the economy as a whole. However, the central bank views this problem from the stance of the money form and the contradictions and tensions of money as credit, while states approach it from their need to mediate struggle and secure their legitimacy.

The decision by central banks to engage (or not) in money market interventions to ease or contract the availability of funds for different sectors of the economy and the financial sector is thus open to contestation. Central banks may choose to enforce constraints on credit practices to discipline financial actors at times when the state seeks

monetary easing to preserve or secure a political strategy. For example, in 2007, the Bank of England refused to ease monetary conditions in order to discipline the financial sector, but this risked the British government's growth strategy; leading to political criticism of the Bank of England (Treasury Select Committee, 2008e). Equally, the perception that the Bank of England was lending too easily and destabilising the global position of sterling was a key factor in the establishment of the 1844 gold standard (Knafo, 2013). Meanwhile, the political need for targeted interventions into various economic sectors, initially resisted by the Bank of England due to its political implications, shaped the 2011–2013 period of Bank/State relations, culminating in the Funding for Lending Scheme (see Chapter six).

While the details of any potential conflict are the result of their historical conditions, the financial decision rests with the central bank. While the state may be able to exercise legal and political power over the central bank to force action, ultimately it is the central bank that must conduct and operationalise any policy decisions. This stands in contrast to the realms of fiscal and regulatory policy, where the state is able to wield more influence.

**Fiscal Policy**

Alongside potential tensions over the direction of central bank monetary policy, where in principle the central bank is dominant, the central bank and the state enter into a more complex point of tension over state funding. The state relies on finance and money to operate within capitalism and, with the rise of credit money and the diminished status of the state-controlled mints, states have become dependent upon financial markets to finance any deficits in expenditure. Deficit financing operates like any other credit

expansion: it involves the simultaneous creation of deposits and a financial asset — government debt (Minsky, 2008, p. 37). Thus, any deficit expansion is based on the conditions of financial markets: markets shaped by central bank monetary strategy. This creates a potential tension between the need of the state to secure low costs of deficit financing and the needs of the central bank's money management strategy.

Furthermore, unlike the creation of most other forms of credit state, debt causes an indirect monetary expansion and arouses a financial stability concern due to its privileged position in the credit structure. State debt circulates amongst banks as "almost money", due to its lack of meaningful default risk (Minsky, 2008, pp. 39–40). For state debts are premised not on the revenues of a particular household or capital but on the revenues of a nation of households and capital (Mehrling, 2000b). Due to this highly liquid state, banks can also use state debt as a means of rationing reserves thanks to their ability to use it as collateral or to sell state debt as a means of raising the necessary funds (Mehrling, 2011, p. 26). With the development of financial innovations, such as repos and securitisation, government debt becomes the foundation material for 'shadow money' and funding operations (Gabor & Vestergaard, 2016), becoming a critical component of financial stability. Thus, the expansion of sovereign debt has a twofold effect, both directly and indirectly expanding the money supply and vice versa. It thereby potentially undermines the monetary policy of the central bank and, through the privileged position of state debt on bank balance sheets, the stability of the credit structure.

Due to both of these features of state debt, the credibility and size of the state finances are of critical concern for the central bank. Rising instability within sovereign debt markets would cause drastic contractions of credit across the economy, as was found in the Eurozone crisis. Meanwhile, surges in state expenditure result in monetary

expansion, potentially undoing the work of a conservative central bank. Equally, a commitment to austerity and budget surplus can cause financial disruption if it creates a shortage of high-quality collateral for funding operations, such as the market for German Bunds since 2015 (Reuters, 2015).

Given this interconnection between state debt markets, financial stability and monetary policy, it is not surprising that central banks are often also the managers of the state's debt. This often prized position not only enables the state to raise funds directly but also enables the central bank to shape and manage the markets for sovereign debt and thus mediate any side effects of fiscal policy. At the same time, as the government's banker, it enables the state and the central bank to coordinate policy, such as in 1939 when the Bank of England orchestrated low market rates to facilitate the sale of war bonds at 2.5% (Sayers, 1976, pp. 582–585). Or as in the 1920s when the Bank of England pressured the state into adopting austerity as a means of securing the international credibility of sterling (Morrison, 2015). At the same time, the use of monetary or budgetary constraints can serve to externalise the question of state expenditure as a means of exerting political discipline through austerity rather than political accommodation through welfare expenditure (Burnham, 2011a). However, there is no guarantee that the political needs and strategies of the state and the monetary needs and strategies of the central bank will be in alignment, leaving space for conflict as central banks adjust monetary policy to offset fiscal policy, discipline states or otherwise attempt to shape fiscal decisions.

**Financial Regulation**

The final point of tension stems from the position of money as credit. Central banks set the immediate and future costs of extending credit via their control over reserves, enabling them to curb exuberance and ease tension in a dynamic and temporal fashion (Fontana, 2003). This, however, depends heavily on the credibility of the central bank's position, forecasts and interventions with financial actors (Hall, 2008). Credibility can be maintained in a range of ways, from a process of obscuration and mystification of central bank practices, creating atmospheres of caution, to highly embedded discretionary management and "old boys" clubs (Solomon, 1995), to the modern approach of technical discourse (Baker, 2006), transparency and clear outlining of objectives, means and responses (Jabko, 2009). Yet these strategies, while potentially maintaining the credibility of the central bank, are far from being able to ensure the 'correct' behaviour of financial institutions.

The banking sector is predisposed towards over-extension of credit in the long run. As capitalist enterprises they are competing for profit; their profit, however, is derived from the repayment of credit, the collection of promises to pay rather than the process of production itself. Thus, in order to make a profit, they must be continually extending credit and competing for debtors. As already argued, this leads to rising inflation and asset bubbles, which undermine the credibility of the currency and the stability of the credit structure.

This problem of regulating the credit structure is a central feature of central banks, as they set the terms of interbank payment. However, the development of liquidity insurance facilities (such as Lender of Last Resort) provokes moral hazard, as financiers

know they can access funds if necessary (Minsky, 2008, pp. 279–282). At the same time, the self-feeding nature of bubbles and the delayed impact of increases in the costs of funds mean that monetary policy alone is limited in its ability to curb financial excess (Brunnermeier, Goodhart, Crockett, Persaud, & Shin, 2009, p. 32). Thus central banks face a trade-off between intervening in crisis to preserve the credit structure, and thus undermining the future credibility of the money supply as implicit and explicit guarantees are given, or allowing a crisis to unravel.

The risk and reality of crises that threaten the entire credit structure requires that either central banks intervene or face an existential crisis of money. Thus central banks through their actions to secure money are also potentially sources of future instability (Lapavitsas, 2001). In order to offset this, central banks require adequate supervision and regulatory regimes to curb financial excess and thus mitigate the risks of moral hazard.

The tools and tactics available, however, depend on the position of the central bank within the broader state system and the broader aims and objectives of the state. For, as Goodhart (2011) notes, ‘sanctions … depend on national democratic legislation and the rule of law’ and so any regulator or supervisor would have to engage with national governments to set and enforce rulings (p. 149). Although it is possible for central banks to set and enforce limited supervision and regulatory tools as a condition for being covered by Lender of Last Resort policies (Goodhart, 1988), this risks aggressive institutions “going without” and then threatening stability in crisis. Thus the state as the author and enforcer of the rule of law is required to allocate powers and responsibilities to financial regulators and supervisors to curtail damaging financial behaviour. In turn, central banks are dependent upon the state to fulfil their stabilising function.

Again, there is no necessary correlation between central bank and state preferences for regulation. Regulatory and supervisory agencies may be placed externally to the central bank with independent mandates or be located within central banks as part of their operations. Particular legislation or reforms may be enacted against central bank wishes in order to achieve various political goals, such as privileging credit to politically sensitive sectors or limiting (or expanding) the activities of different types of institutions. In reality, however, there tends to be significant consensus between central banks and states over the direction of financial legislation. Much of it originates in international fora, such as the Basel Committee on Banking Supervision or the Financial Stability Board, or through protracted national consultations and negotiations (see Quaglia, 2010). That being said, scope for disagreement does exist, such as in 2007–10 in the UK over the appropriate structure of the regulatory architecture. And within these periods the state is the ultimate decision maker as legislator.

The importance of these points of tension and conflict over monetary, fiscal and regulatory policy is historically dependent. The particular form and content of a contention depend on the circumstances faced and the strategies developed by state and central bank actors. Critically, what has been left out of this analysis so far is the particular historical relationship between the state, central banks and financial actors. Due to the critical role of central banks in managing credit and monetary relations, states have tended to incorporate them into their structures, either through direct politicisation or through national ownership and appointment of senior staff. The development of state and central bank strategies is not conducted in isolation but with constant concern not only for the other's strategy, but also for the institutional relationship between the state and central bank.

When politicised and incorporated as part of the state, these tensions play out internally, with the bank seeking to utilise its position of expertise and knowledge and its capacity to directly access policy makers to shape policy outcomes. But the state possesses the capacity to command the bank and reserves its capacity to set policy, thereby limiting the scope for instability arising from a clash between the central bank and the state. This, however, risks abuse of monetary policy by politicians, the loss of credibility in the currency and the direct political challenge of monetary policy — all of which create instability. Thus, the location of the central bank in relation to the state is both an important part of state strategy and a key determinant of the outcome of these tensions.

## IV.ii. Central Bank Independence

To be clear, the argument here is not that these points of structural tension will necessarily occur, or that the structural features will dominate. As Lombardi and Moschella (2016a) clearly argue, institutions matter, as do the particular preferences and goals of actors (see Adolph, 2013). The argument here is that the problems that they face, and the conditions for their survival — their preconditions — are determined by their structural position within the process of capital accumulation and that any resulting conflict will be shaped by this position. This then plays out within a historically specific configuration of relations.

The exact nature of this specific configuration is shaped by processes of (de)politicisation. A key aspect of state strategy is the characterisation of social relations as political, as subject to the judgement of the polity; or un-political, private or otherwise not subject to public contention as a form of 'metagovernance' (Fawcett & Marsh, 2014,

p. 180). This can involve the active politicisation of social relations in an attempt to contain struggle through moral suasion by bringing them under direct state control (Burnham, 1999, 2007). Or alternatively the 'placing at one remove' of policy making from state managers through institutional reforms and rule setting, thereby limiting discretion (Burnham, 2001, p. 128; see also Flinders & Buller, 2006b). Equally, processes of sedimentation, where customs become established and thus uncontested (Jessop, 2014), and direct challenges to state authority can drive (de)politicisation processes (Burnham, 2014) as can a range of other strategies (see Flinders & Buller, 2006a; Wood & Flinders, 2014).

This process of (de)politicisation is particularly relevant for considering state–central bank relations. The management of money as a social relation is critical to the capitalist mode of production and thus the state. So, the ability to directly manage the money supply, or to resolve issues over its production and reproduction is a critical resource for the state and leads most states either to nationalise or to exercise some executive control over their central banks. However, politicisation also risks inhibiting central banks in their ability to manage monetary relations, as their policies lose credibility with financial actors (Cukierman, 1994). The risk of political suasion and the subordination of monetary needs to broader political objectives brings into question the commitments of the monetary authorities (Maxfield, 1997). Thus, states may seek to create an arm's length relationship where control can be exercised while credibility is maintained (McNamara, 2002b).

Thus, any tensions over the direction of monetary, regulatory or fiscal policy are historically played out by state and central bank actors across the historical institutional framework of the state–central bank nexus. When politicised and incorporated directly

under state control they play out internally. The central bank seeks to utilise its position of expertise and knowledge and its capacity to directly access policy makers to shape policy outcomes (Burnham, 2017) while the state possesses the ability to legitmately direct central bank policy. Depoliticised central banks become bound by the terms of their depoliticisation (Dellepiane-Avellaneda, 2013) but gain scope for independent action and policy development.

Having moved from the abstract central bank problem by situating it alongside the state's problem, this chapter continues this process of deabstraction by turning to the specific configuration of the British State–Bank of England nexus in 2006. This is largely the result of the 1997 reforms, which granted the Bank of England operational independence over monetary policy but separated it from governent debt management and financial regulation. The subsequent strategies developed by the Bank of England and the British State then serve as the starting point for the study of the changing role of the Bank of England from 2006 to 2015.

## The 1997 Reforms

Since 1997, the potential conflict over the direction of monetary, fiscal and regulatory policy occurred, in the UK, within the confines of the operational independence granted in 1997. This had involved the depoliticisation of monetary policy by returning autonomy to the Bank of England. But it also meant stripping the Bank of England of its role as the state's banker and banking supervisor, placing these roles with separate agencies. The implication of this was that, while the Bank of England regained autonomy over monetary policy, it lost almost all its power to affect fiscal or regulatory decisions.

The core change in 1997 was that, while the government would set an inflation target, how this was to be met was the purview of the Bank of England. For state managers this was beneficial as it meant binding political opposition to the government's economic strategy (Dellepiane-Avellaneda, 2013) with a view to increasing credibility with global financial markets (Brown, 2001). Meanwhile, for the Bank this offered an opportunity to extract itself from political considerations regarding its policies:

> The clear separation of responsibility for setting the inflation target (the political decision) from responsibility for achieving it (the technical decision) also helps to ensure that the government and the Bank are separately accountable for their respective roles in the monetary policy process. (George, 2001, p. 73)

Furthermore, while the government technically maintained the ability to direct the Bank in crisis, this was practically impossible, as although:

> the Treasury's always had powers under the [1946 Bank of England Act] to direct the Bank … that always seemed terribly nuclear. … [and] if we [the Treasury] were to direct the Bank we needed to know [precisely] what we were directing them to do. [a capacity that the Treasury did not possess] (Interview, Macpherson, 2017)

Thus, while the British government may have been able to set the overall direction of monetary policy, by determining the inflation target and measure, the actual management of money markets was and remains de facto the sole purview of the Bank of England — as long as any action can be legitimised in terms of either the 'general interest' or the inflation mandate.

This enabled the New Labour government to configure monetary policy in a way to pursue wage restraint alongside asset growth in the politically sensitive housing and stock markets by excluding them from the measure (see also Hay, 2009; Watson, 2003, 2013). But it also left the British State with little scope to address divergent preferences over money market operations in crisis, having sacrificed this for increased economic legitimacy in general. This situation came to a head in 2007–08 when the fall in house and stock prices caused a political outcry (Watson, 2009) while the Bank of England sought to enforce monetary discipline.

The second key part of the 1997 reforms was the separation of the Gilt-Edged department from the Bank of England and the creation of the new "Debt Management Office" of the Treasury. This stripped the Bank of England of its role as the market manager for state debt. Combined with the transfer of the government's operational accounts to RBS and Citibank in 2008, the Bank of England was left with little scope for direct engagement in state fiscal affairs, having only the management of the "ways and means" account and the gold reserve (Bank of England, 2009a, p. 20). This is unlike the 1920s and 30s when the Bank of England could directly engage with the British government over "appropriate" and "correct" fiscal management. The Bank of England now had to rely on policies of 'externalisation' by giving regular briefings, speeches and comments on fiscal and regulatory policy in an attempt to utilise its position as an independent authority to shape and direct the policy debate (Burnham, 2017), but with no guarantee that the desired decisions would be made.

Finally, the regulatory reforms that accompanied operational independence saw the Bank of England stripped of its supervisory powers and responsibilities as part of a process consolidating nine different supervisory bodies into a single Financial Services

Authority [FSA]. This, for the first time, separated the banking supervision aspect of financial stability from the market management aspect. This separation of banking supervision was a contentious point within the Bank of England (Conaghan, 2012, pp. 32–37). For some such as Mervyn King (then Deputy Governor) it was welcomed as it boosted the Bank of England's credibility as a monetary authority. Political intervention was minimised and the potentially conflicting financial stability concern was externalised (Balls, 2016, p. 301). However, this also cost the Bank of England important intervention powers and left it almost entirely dependent on the FSA for the mitigation of any moral hazard caused by Bank operations. This, combined with the loss of debt management operations, meant that the Bank of England in 2007 had little operational capacity outside of money market management in the pursuit of its objectives.

Internally this also meant a slight reconfiguring of the Bank of England with the creation of the Monetary Policy Committee [MPC]. The MPC was comprised of the Governor, the Deputy Governors, two other executive Bank of England members and four independent "external" members. It sat within the Bank of England as the decision making body for monetary policy; specifically they had the task of determining the level of the base rate required to meet the inflation target. The composition of the MPC meant that while it sat within the Bank of England, it also had some relative autonomy as a decision-making body with independent members. However, the Bank of England more generally was where the policy was developed through regular consultation with the senior executive so that

> in the Bank everybody knows what the Governor's view is on whatever policy they are working on. The policy discussions go up and down the management chain. Some people were complaining about 'the empire of the sun king' or

> ‘group think’. But actually it’s just natural at a central bank that the final policy decision is made at the top. And if you’re working on a policy you should take into account senior people’s views, to give you the best chance of getting your proposals accepted. The issue was seldom group think, it was nearly always hierarchy. (Interview, Senior Bank of England Official A, 2017)

Whereas in the Monetary Policy Committee dissent was common and it was constructed as an arena for debate (King, 2007). However the predominance of the Bank of England Executive in the MPC’s membership has meant that it has never voted against the governor’s recommendations. Also the MPC has only been empowered with deciding ‘how much’ of a given tool is to be used, rather than ‘what tools’ (Interview, Miles, 2017). Leaving the majority of policy design and operations within the Bank of England more broadly.

Thus while “the Bank of England” may be treated as a relative whole when discussing policy development, due to its internal integration of policy development, the MPC, and later the Financial Policy Committee [FPC] will be treated by the following account as partially autonomous. “The Bank of England” will be used to denote the broader and cohesive whole whereas the MPC and the FPC will be identified separately, where appropriate, as semi-autonomous decision making bodies within the Bank of England.

Thus the Bank of England entered the 2007 financial crisis with limited competencies compared to previous eras, but with almost complete independence with regards to monetary policy and money market operations. The argument presented here is that these reforms were significant in shaping how the Bank of England approached the financial crisis, but are not significant in explaining how and why the tensions between

the Bank of England and the British State evolved over the crisis. To do this the reforms have been situated within the deeper structural tensions between central banks and states in general and thus how these reforms left the Bank of England isolated. The implications for this in terms of the Bank of England's money market strategy and its relationship with the Tripartite Authorities provide the starting point for understanding the development of the crisis response and the post-crisis reforms.

## IV.iii. The Money Market Review and the 2006 Strategy

The context of operational independence for monetary policy alongside severely reduced operational competence in both financial stability and government debt management left the Bank of England with only one set of tools to achieve its objectives — money market management. These operations had been under review since 2003 and in 2006 had been largely reformed as the Sterling Monetary Framework [SMF] as part of a complete review of the Banks of England's operations under the new Governorship of Mervyn King (Interview, Senior Bank of England Official B, 2017). The core strategy of this approach was the use of market discipline as the primary tool for ensuring financial and monetary stability.

The SMF operated via two corridor systems: one around endogenously set reserve targets (Figure 4) and another around the base rate for reserves (Bank of England, 2006; Figure 5). Every month each clearing bank submitted a target level for its reserves in the forthcoming period (the space between monetary policy meetings) which the Bank of England would then provide to the market through Open Market Operations, via repos at or around the base rate (Bank of England, 2006). Over each period banks would then need to average their target within a margin of ±1% by borrowing or lending out funds.

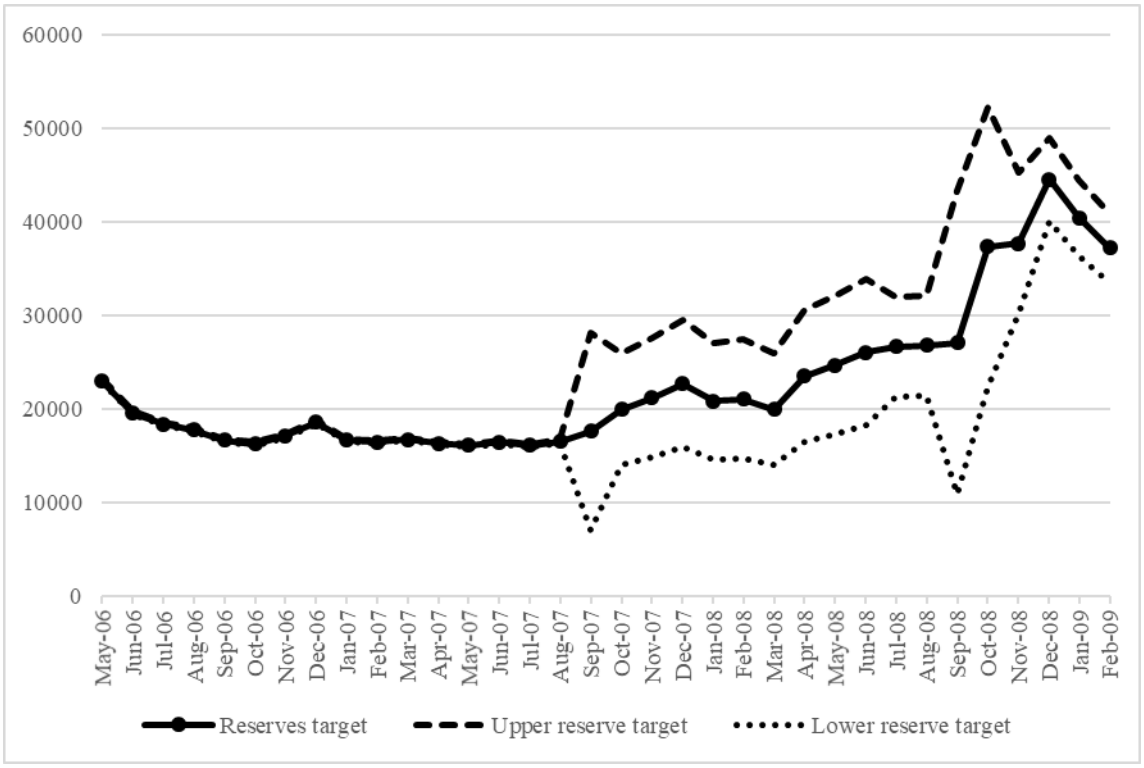



*Figure 4. Average reserve targets (£ millions) for preceding period, May 2006–February 2009 (Bank of England, 2018d)*

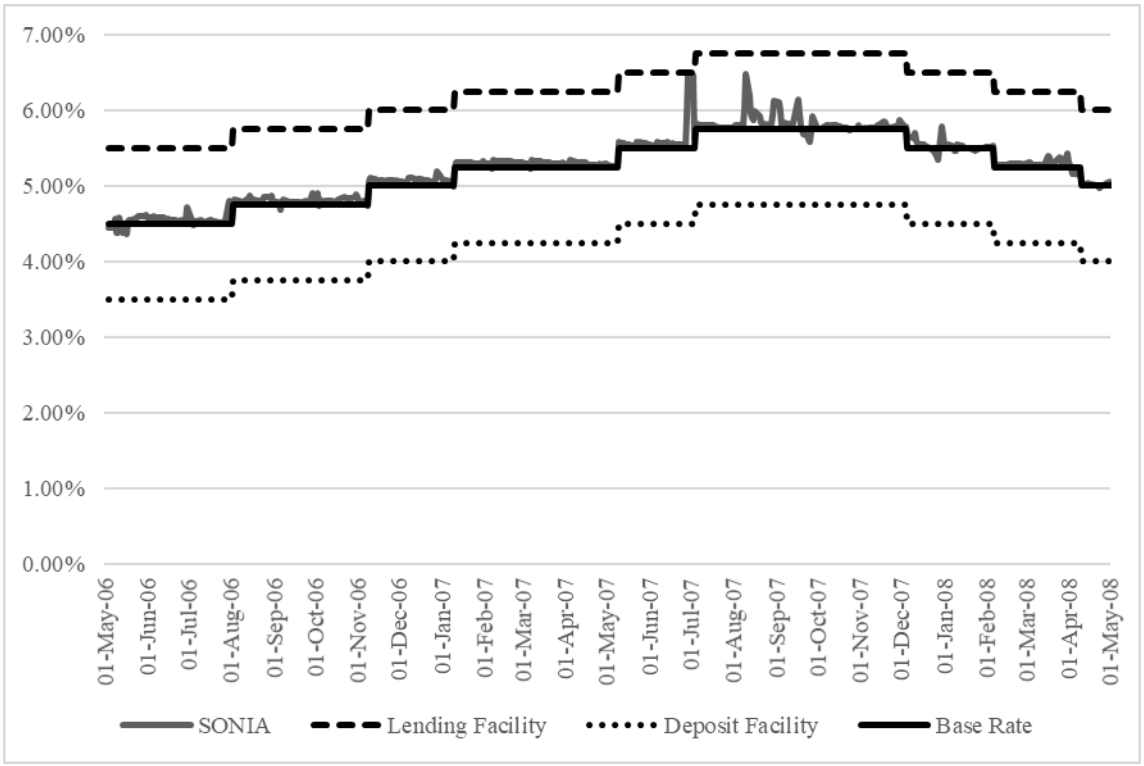



*Figure 5. Sterling Monetary Framework & SONIA May 2006–April 2008 (Bank of England, 2018d)*

Deviation from this margin resulted in sizeable penalties. This incentivised banks to lend reserves when market rates were above the base rate and to borrow when they were below, resulting in a fluctuation in the Sterling Overnight Index Average [SONIA] around the base rate. This fluctuation was then contained by the Standing Facilities which were the rates at which the Bank of England itself was willing to lend or take reserve deposits overnight. Thus, changes in the base rate would set the overnight cost of reserves which in turn served as a benchmark for all other asset markets.

The Bank of England both created the market for reserves and set its limits, relying on the appropriate pricing of risk and fears of penalties to set the terms for all other markets. This transmission mechanism relied entirely on market discipline and fear of losses, with a limited safety net of the Standing Lending Facility to prevent market exuberance. The FSA provided assurance that key institutions were stable though a complex set of risk assessments determining credibility and solvency (McPhilemy, 2013). Both systems of governance relied heavily on the credibility of these rules; it was intended that the Bank of England would not manage markets to prevent the failure of banks.

This did not mean that the Bank of England ceased to have an interest in financial stability. In fact, this was still a key concern for the Bank of England, as a sudden rupture in financial activity would drastically affect its ability to govern the money supply and its position as a monetary authority. By 2007, the Bank of England had begun to warn of:

> some significant downside risks over the medium to long term: the aggressive search for yield had continued, with a further relaxation of lending criteria and a rapid build-up of complex, potentially illiquid, financial instruments. … a possibility that financial risk was being underpriced (Bank of England, 2007a, p. 19)

However, these were seen as risks in the medium to long term and were not at the forefront of debates. In fact, in 2006 the Tripartite Standing Committee of the Treasury, FSA and Bank of England was presented with reports from both the FSA and the Bank of England that concluded that the British system was, if anything, over capitalised (Interview, senior Treasury Official, May 2017).

Thus, the Bank of England sought to mediate the internal tensions of money as credit by exerting market discipline over financial actors. Firstly, the Bank of England was only active in one market and would only guarantee the liquidity transformation of a set range of collateral in its market operations, thus limiting the scope of its liquidity insurance. Secondly, with systemically unlimited and theoretically free reserves, banks could extend credit as much as they felt profitable on the assumptions that a) the Bank would act to curb inflationary pressures by raising the base rate and that b) given the need to clear in the short run, the credit extended would prove profitable. Thus the problem of profitability and the returns constraint was placed firmly within the individual bank's risk management systems. This system of governance therefore relies heavily on the credibility of rules. Thus, the Bank of England would not step in under crisis to bail out banks, but would instead enforce losses made by bad investments.

Importantly, unlike the system that predated it, the SMF did not rely on regular interventions to meet its goals but instead relied on market dynamics and discipline (Tucker, 2004). The financial stability concern was externalised to banks adequately pricing risks and being able to take losses when they failed to do so. This relied on systemic integrity, i.e. that no one market or institution would provoke a system-wide collapse and that systemic expansion — which would remove the penalty for over extension — would be stable. In short, it was predicated on both the efficient market

hypothesis (Turner, 2016, pp. 30–33) and that the regulatory regime would ensure correct levels of capitalisation. Both of these turned out to be false.

## Financial Stability: The Tripartite Authorities

After the separation of money market management from regulation and government debt management in 1997, the newly formed Financial Services Authority [FSA], the Bank of England and HM Treasury formed the Tripartite Authorities as a means of coordination and information sharing. The division of powers was such that the Bank was seen as responsible for systemic financial stability, reduced to the notion of LoLR and market liquidity — both theoretically guaranteed under the SMF. The FSA was responsible for regulation and supervision with the Treasury legislating where appropriate. The result was three relatively isolated strategies, which while compatible under the "great moderation" proved to be critically flawed and problematic under crisis.

### Bank of England's Role

The nominal responsibility for systemic financial stability sat with the Bank of England (Tripartite Authority, 2006; see also Balls, 2016, pp. 301–302). However, the Bank was not provided with any statutory tools or abilities to exercise this mandate, as it would have risked the separation of the FSA from the Bank of England (Interview, Senior Bank of England Official B, 2017). This meant that in the build-up to 2007 the Bank saw its responsibility for financial stability as extending to the surveillance and reporting on market conditions, which it did through the regular publication of its *Financial Stability Report* (Bank of England, 2007a, p. 19).

This was both a logical response to the separation of powers where the Bank no longer had the ability to supervise or direct banks but also a conscious strategy of the Bank under Mervyn King. King consciously sought to disentangle the Bank from financial supervision and regulation, instead focussing primarily on Monetary Policy as a means of containing inflation (Interview, Senior Bank of England Official B, 2017; see also Conaghan, 2012, pp. 106–111). Under the previous governor, the Bank had continued to be vocal on financial stability matters, with banks 'trying to sneak round the back of the FSA to get the Bank to intervene' (Interview, Senior Bank of England Official B, 2017). This undermined the FSA's authority as a supervisor and thus risked the regulatory regime thus

> The Governor when I was appointed [in January 2006] said he "wanted to make it operational". But what he meant by that was not that he wanted to facilitate financial stability operations but to produce good analysis of the financial sector and its stability or instability. He was very clear that he didn't want us interfering in regulatory matters which was the FSA's role and for which we had no expressed powers. (Interview, Gieve, 2017)

At the same time, the logic of "placing at one remove" key operations in order to insulate oneself from either a conflict of interest or external pressures works just as well for central bankers as it does for state managers. The location of financial stability with the FSA thus served to remove pressures on the Bank to moderate its monetary policy due to financial stability concerns. This freed up the Bank to focus exclusively on the direct maintenance of the money relation, as stability and solvency had been externalised to a separate agency.

That being said, the Bank was also aware that, theoretically, its responsibility could extend beyond this due to its operational responsibility for liquidity provisions and payments systems. Thus the Bank in 2007 had begun discussions for the allocation of the necessary regulatory powers to the FSA to regulate the payments architecture (NEDCo, 2007) to limit the Bank's financial stability exposure. This was an approach in keeping with not only the Bank's market-based monetary management but also with the strategic preferences of the Governor, Mervyn King, for financial supervision and monetary policy to be completely separated (Balls, 2016, p.301) to prevent policy conflicts and thus loss in credibility for monetary policy (Conaghan, 2012; see also Solomon, 1995).

**FSA's Role**

The FSA's approach to financial regulation was largely to focus on consumer and financial conduct, as set out at the beginning of their 2006 Annual Report

> Our objectives are:
>
> **market confidence:** maintaining confidence in the financial system;
>
> **public awareness:** promoting public understanding of the financial system;
>
> **consumer protection:** securing the appropriate degree of protection for consumers; and
>
> **the reduction of financial crime:** reducing the extent to which it is possible for a business to be used for a purpose connected with financial crime.

*Figure 6. FSA objectives statement (Financial Services Authority, 2006, p.1)*

“Market confidence” loosely translated as a system of supervision and regulation that sought to ‘promote efficient, orderly and fair markets, and to ensure that UK markets are internationally attractive and sustainable’ (Financial Services Authority, 2006, p.17). Regulation was based on the ideas:

> that financial innovation was to be encouraged because it was likely to expand investor and issuer choice, and that regulatory interventions had to be specifically justified by reference to the specific market imperfections they were designed to overcome (Turner, 2012, p.43)

Thus financial supervision was conducted through a ‘principle- and risk-based regulatory system’ (Financial Services Authority, 2006, p.8), where firms would be expected to operate under strict principles of conduct and would be assessed in terms of solvency and credibility though a complex set of risk assessments (McPhilemy, 2013). This was designed to provide transparency to the supervisory process while pushing firms to establish best practice internally though close supervisory relationships and internal reporting (*ibid*.), and at the same time encouraging financial innovation and the drive towards ‘market completion’ through increasingly complex financial instruments (Turner, 2016, pp. 29–30). Thus the FSA’s financial stability strategy focussed on institutional stability and competitiveness premised on market efficacy.

These premises ultimately proved problematic. Not only did the supervisory structure of algorithmic risk assessment essentially result in a box ticking exercise with the performative appearance of credibility, but the FSA, in attempts to reduce regulatory burden, increasingly relied on the internal reporting and judgements systems of the supervised in making its decisions (McPhilemy, 2013).

Thus, in the build-up to the crisis, the systemic provision of stability relied on the enforcement of the SMF regime and limited LoLR facilities, which were dependent upon institution-level stability and capitalisation. These were in turn guaranteed through a process of nominal compliance and self-governance under the purview of the FSA. Both of these were largely based on the notion that markets were self-disciplining and that what was necessary was to enforce the "rules of the game" and prosecute those who sought to distort market pressures.

So when crisis did break on British shores in September 2007, with the collapse of Northern Rock, the Bank of England's response was to utilise this opportunity to enforce market discipline on what it perceived to be as over-buoyant markets. It maintained its credibility as a monetary authority by letting Northern Rock fail. This involved the use, or lack thereof, of monetary policy to ease liquidity pressures while still pressuring and penalising banks that over exposed themselves. This proved contrary to the analysis of the FSA and the Treasury, which preferred a course of loosening to allow restructuring and limit the fall-out. The Bank, however, invoked "moral hazard" whenever challenged by state officials to change course. This hard-line approach ceased to be credible, however, with the collapse of Lehman Brothers a year later.

## IV.iv. Conclusion

In contrast to the prevailing central bank independence literature, this chapter has presented the case for understanding the 1997 reforms to the Bank of England as more than a state strategy to depoliticise monetary policy — although this certainly was the case (HM Treasury, 2002, pp. 93–94). By situating the Bank of England as a distinct policy actor, facing a related but separate set of problems to the British State, the

implications of operational independence for Bank policy become more apparent. With the loss of control over banking supervision and sovereign debt management, the Bank was limited to its most basic function as the bankers' bank by 2006.

The strategy developed by the Bank then is in part a logical extension of its institutional position in response to its underlying problem of managing the money relation. The problem of individual bank stability had been placed at one remove in the FSA, freeing the Bank of England to pursue the stability of money in general without concern for the stability of money as credit. The resulting money market strategy's reliance on market discipline and limited intervention to achieve monetary stability which prevailed in 2006–2008 is thus to a certain extent a logical response to the underlying money problem in the context of the 1997 reforms.

So in contrast to approaches which have emphasised the scope for drift or arm's length control over the Bank of England by the British State, this approach has developed the shifts in strategy as direct responses to the new institutional configurations. These new strategies and distribution of responsibilities and powers serve as the starting point for the rest of the thesis' analysis of the changing role of the Bank of England.

The Bank of England's strategy then served as the foundation to the crisis response, where 'moral hazard' and the drive to curb inflation formed the core of the Bank's response to financial instability. In essence, this was an attempt to assert market discipline while attempting to externalise responsibility for individual bank stability. As this strategy eventually proved untenable for both structural and political reasons in 2008, the Bank's response remained framed by the underlying problem of maintaining the money relation in contrast, and conflict, with the State's need to mediate broader social

struggle. The result is a radically reformed Bank, where the problem of financial stability has been internalised, leading to a fresh series of reforms to the Bank's strategy under the new Governorship of Mark Carney. An understanding of the development of these reforms and the move to interventionist money market strategies is developed in the following chapters. This remains as a narrative of conflict, cooperation and compromise between the Bank of England and the British State as they seek to mediate the contradictory tensions and problems inherent in their existence as capitalist social forms and their resulting points of tension over monetary, fiscal and regulatory policy.

# V. Managing Crisis: 2007–2008

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The independence of a central bank is not just about legislation; it is about having people in the central bank who will do what is right for the country in their job and not do what people ask them to do, whether it is the banks or whether it is politicians

(King, Treasury Select Committee, 2008g, Q18)

Your guy Mervyn has a high pain threshold, I hope you do too

(Hank Paulson to Alistair Darling in Darling, 2011, p. 29)

Frankly, the days after Lehman's it was only a matter of time before the whole thing came crashing down

(Interview, Darling, 2017)

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There is a disconnect between the accounts of the financial crisis provided by practitioners and contemporary journalists and that provided by the academic literature. While the former, and much of the evidence presented in this chapter, points to a process of conflict and compromise between the British government and the Bank of England over the appropriate response to the crisis (e.g. Brown, 2010; Conaghan, 2012; Darling, 2011; Treasury Select Committee, 2008e), the academic literature has to date focussed instead on the subsequent policy mix as a unified strategy (e.g. Bell & Hindmoor, 2015b; Gamble, 2009a; Hodson & Mabbett, 2009; Thain, 2009; Watson, 2009b).

The main contribution of this chapter is to bridge this disconnect by providing a clear and theoretically informed account of the development of the 'British Plan' (Quaglia, 2009). By situating the Bank of England as a policy actor facing distinct but related problems to the British State, the approach adopted by this thesis opens space for understanding the process of conflict and compromise underpinning the crisis response. By doing this from the vantage point of managing the contradictory forms of capitalism, this approach also then provides an account which demonstrates the underlying structural problems faced by the Bank of England and the British State in managing crisis as an explanatory factor. This chapter thus provides a rereading of the crisis as a logical response to the underlying contradictions of the state form and credit money in the context of "operational independence".

This chapter thus operates at a very low level of abstraction. Its purpose is to show how the strategies developed since the 1997 reforms resulted in conflicting preferences over the crisis response. Namely that having been stripped of its purviews in government debt management and banking regulation in 1997, the Bank of England's governing strategy relied on enforcing market discipline to shape financial practices and curtail the tendency to overextend credit. This meant in conditions of market turmoil enforcing losses and refusing to ease market pressure on banks to restructure and recapitalise. While October 2008 heralded a change in strategy as the entire credit structure came under threat, the Bank of England faced this initial period as a limited situational crisis of tight money markets and a single failing bank that could be used to set an example. Thus its strategy remained consistent with the problem it perceived itself as facing.

This directly conflicted with both the state's growth strategy and the political embarrassment of the first run on a British bank in over 150 years. The New Labour government had developed an economic strategy based on 'privatised Keynesianism' (Crouch, 2009), whereby welfare gains were secured through cheap credit and rising asset values (Montgomerie & Büdenbender, 2014), but tied the perceived economic competence of the state to maintaining these values (Watson, 2013). But more immediately the run on Northern Rock and its eventual nationalisation were a significant political embarrassment which the government was keen to avoid a repeat of. These objectives directly clashed with the Bank of England's monetary strategy of 'market discipline' and forced restructuring.

In other words, the Bank of England sought to maintain M–C, money as command, by enforcing losses and making the returns and clearing constraints bind on private banks to shape credit practices. The British government sought to maintain C–M′, money as a means of circulation, to ensure continued economic prosperity and avoid economic recession; which in turn would undermine government support. Thus the state stepped in to fill the void left by financial markets and the Bank. The programme of recapitalisation and dedicated liquidity channels, backed by state debt were the result.

The focus of this chapter is on the rereading of this policy development as one of conflicting strategies. Thus its analysis remains at a relatively low level due to the continuity of the strategies deployed from 2006 and focusses on the interplay between key actors in their attempts to shape outcomes. The shifting problems and strategies developed in the aftermath are covered in chapters six and seven at a slightly higher level of abstraction and thus focus more closely on the contradictions of money. This chapter

instead focusses on the implications of this approach for our understanding of policy development.

The structure of this chapter is as follows, the first part briefly outlines the system of financial governance that operated in the UK prior to 2007 and how the strategies of the Bank of England and the British State related to one another in crisis. The second part then revisits the fall of Northern Rock in the middle of 2007 and how the various strategies came into conflict as the Bank sought to enforce market discipline, while the Treasury and the Financial Services Authority [FSA] sought an easing of the clearing constraint to facilitate recapitalisation. The third part then revisits the interim period between September 2007 and September 2008 when the Bank of England sought to use the financial turmoil as a means of curbing financial excess and inflationary expectations. This attempt to maintain the credibility of sterling by enforcing market discipline met significant political pressure to do otherwise. The Special Liquidity Scheme and the restructuring of the term structure for reserves in 2007–8 are in this light seen as a slight easing of the clearing constraint by providing liquidity to certain asset markets under extraordinary stress but they ultimately continued to make the returns constraint bind, forcing banks to take losses and restructure — continuing the strategy taken a year earlier with Northern Rock.

It is not surprising, then, that the policy response to the collapse of Lehman Brothers is similar to Northern Rock: a large state capitalisation and liquidity package backed by state debt. With the collapse of Lehman Brothers in September 2008, however, the limits of the Bank's market-based strategy were met as the crisis transitioned from a crisis of a particular money to money in general. Thus this chapter concludes with the implications of this rereading of the crisis and how Lehman signalled a shift in the nature

of the crisis. This shift led to a process of innovation and reform, discussed in chapters six and seven.

## V.i. The Tripartite Authorities

In 2007, the British system of financial regulation took the form of the Tripartite Authorities [TPA] of the FSA, the Bank of England and the Treasury. Each was allocated a specific purview under the memorandum of understanding. The Bank's primary responsibility was to maintain the credibility of sterling by meeting the inflation target of 2%. The Bank's financial stability role had been limited to the production of six-monthly financial stability reports and the potential provision of a lender of last resort function. Financial stability and supervision were seen as the FSA's role and thus the Bank of England was not to interfere. The Treasury, in principle, formed the lead; providing legislative reform when necessary and providing a deposit protection scheme to limit the risk of bank runs.

This configuration had formed a central feature of the Labour government's financial management strategy (Darling, 2011). It served to firstly depoliticise the questions of financial regulation and monetary policy by placing them in external agencies in a context of a "rules based" economic governing strategy (Burnham, 2001). Secondly, it unified financial services supervision into a single agency, thereby limiting the power of the Bank while granting it independence (Burnham, 2017). Finally, the Treasury would remain the primary decision maker "acting in the light of advice from both the Bank and the FSA" (Gieve, 2006). However, this power was severely limited by the practicality of dismissal and the signalling effect of failure to reappoint (Interview Darling, 2017). Thus the Treasury was in practice limited in its ability to directly

command either the FSA or the Bank (Interview, Macpherson, 2017). Essentially, the Treasury relied on consensus in the TPA regarding appropriate policy.

The TPA, however, was often a divided and even 'venomous' (Interview, Senior Bank of England Official B, 2017) environment. The result was relative discoordination and dissensus and a relative breakdown of relations between the FSA and the Bank within the TPA (Darling, 2011, p. 20)[10]. Thus, the arm's length management strategy quickly came undone as the crisis broke and nobody was sure either whose responsibility it was or what the response should be, re-politicising the question of financial regulation and supervision.

The Bank's strategy in this environment was to focus on monetary policy as a means of securing price stability — the ability for money to command the means of production. '[T]he financial stability activity of the Bank of England was a rather sort of theoretical academic exercise' (Interview, Turner, 2017) as a part of a strategy that sought to detach the Bank from financial stability concerns. Instead, the Bank sought to secure sound money though the Sterling Monetary Framework [SMF], a system of market discipline where the Bank's Monetary Policy Committee [MPC] would set the cost of the overnight unsecured market for reserves against which all other markets would be set (Bank of England, 2006). This meant that financial stability and bank failure became subordinate to the need to stem inflationary pressures. Indeed, it was even questionable whether the Governor would step in as a lender of last resort

[10] It is worth noting that working relations remained relatively cooperative between the Bank of England and the Treasury but were constrained by the policy paths set by the Principals (Interviews, senior Bank of England official A, 2017; Macpherson, 2017; Senior Treasury Offical, 2017)

> Because he had a strong view that … moral hazard was a substantial risk if you stepped in to save the banks. And more generally … he was very keen to emphasise that we were setting monetary policy for the whole country, he had no interest for banks as an industry more than any other industry. (Interview, Gieve, 2017)

So bank failure, while undesirable, was to be allowed in order to prevent 'moral hazard' from risking the ability for the Bank to make the base rate effective.

The FSA, then, was the sole institution responsible for financial regulation and supervision for all institutions (HM Treasury, 2002). Its strategy, however, had been to focus on capital requirements and institution-level risk assessments and 'was constrained by a legalistic regime' whereby it could face litigation if it sought to engage in proactive action (Interview, Turner, 2017). In particular, it was also largely compliant with the government's strategy to develop and maintain the City of London as a competitive financial sector. Thus the FSA was actively concerned with reducing regulatory burden (McPhilemy, 2013). Thus, its overarching strategy, like the Bank of England's, was to rely on market discipline and good business practice to secure financial stability (Turner, 2012, p. 43; 2016, p. 29). However, unlike the Bank of England, the FSA was also directly responsible for bank failure, but with no tools at its disposal to handle one (Interview, Turner, 2017), with the Bank as the lender of last resort and the Treasury as legislator (Tripartite Authorities, 2006).

The question of crisis management then ultimately rested with the Bank of England and the Treasury, for, while the FSA had more detailed information about the state of UK financial institutions, it had very limited interventionist powers. The Bank

and the Treasury, however, both had scope to directly intervene. The problem surfaced quickly, however, as to what the appropriate distribution of responsibilities and actions was to be, due to the lack of any coherent plan or agreement. While 2006 had closed with a series of financial "wargames", concluding that the Bank should act quickly to stem contagion with the Treasury as a backstop (Balls, 2016), 2007–08 saw the Bank commit to its strategy for fear of losing credibility and stoking moral hazard. It was only as the crisis deepened and the money relation itself came to be at risk that the Bank of England changed path.

The British strategy for managing the immediate banking crisis was thus a result of compromise and conflict between the Bank of England and the British government. Where the Bank's credibility relied on the enforcement of the rules of the SMF and market discipline through enforced losses, the state was faced with the political implications of a bank run and '[a]rguably … the worst economic downturn … in sixty years' (Darling, 2011, p. 105). This placed the political needs of the state and the monetary strategy of the Bank of England at odds. The state sought to curb the crisis as quickly as possible to secure the market structures that underpinned its growth strategy (Watson, 2009a), while the Bank of England sought to use this opportunity to discipline finance and secure the relationship M–C in the face of rising inflation.

## V.ii. Northern Rock

The failure of Northern Rock in August 2007 and its eventual nationalisation in 2008 served as something of a dry run for the peak of the crisis in 2008. The debate and compromise formed in the resolution of Northern Rock in effect established the strategy for all future bank failures and the 2008 Act passed to allow nationalisation was what

enabled the speedy response nine months later (Interview, Macpherson, 2017). This strategy of state-backed recapitalisation and liquidity guarantees was thus the direct result of the conflicting strategies adopted by the Bank of England and the British State in the face of financial turmoil and economic downturn. The Bank sought to distance itself from financial stability concerns in favour of market discipline and the maintenance of money as money; the state sought to curtail the political costs through intervention.

## January–July 2007: Inflation, Strong Growth and Under-priced Risk

The beginning of 2007 saw the MPC in a battle with inflationary expectations, due to a surge in commodity prices (in particular, energy and food wholesale prices), and an initially robust economy which threatened to spiral (Monetary Policy Committee, 2007b, 2007d, 2007e, 2007f, 2007g) (Figure 7), cumulating in the first ever letter from the Governor to the Chancellor as inflation reached 3% in March 2007 (Bank of England, 2007e). In response, the Bank was engaging in a series of rate rises to curb inflation and reduce the exuberance of the economy (see Figure 2).

> Meanwhile the Bank had also begun to warn of:
>
> some significant downside risks over the medium to long term: the aggressive search for yield had continued, with a further relaxation of lending criteria and a rapid build-up of complex, potentially illiquid, financial instruments. There was a possibility that financial risk was being underpriced, and previous experience suggested that markets could move abruptly in the event of a change in sentiment that could dry up market liquidity (Bank of England, 2007a, p. 19)

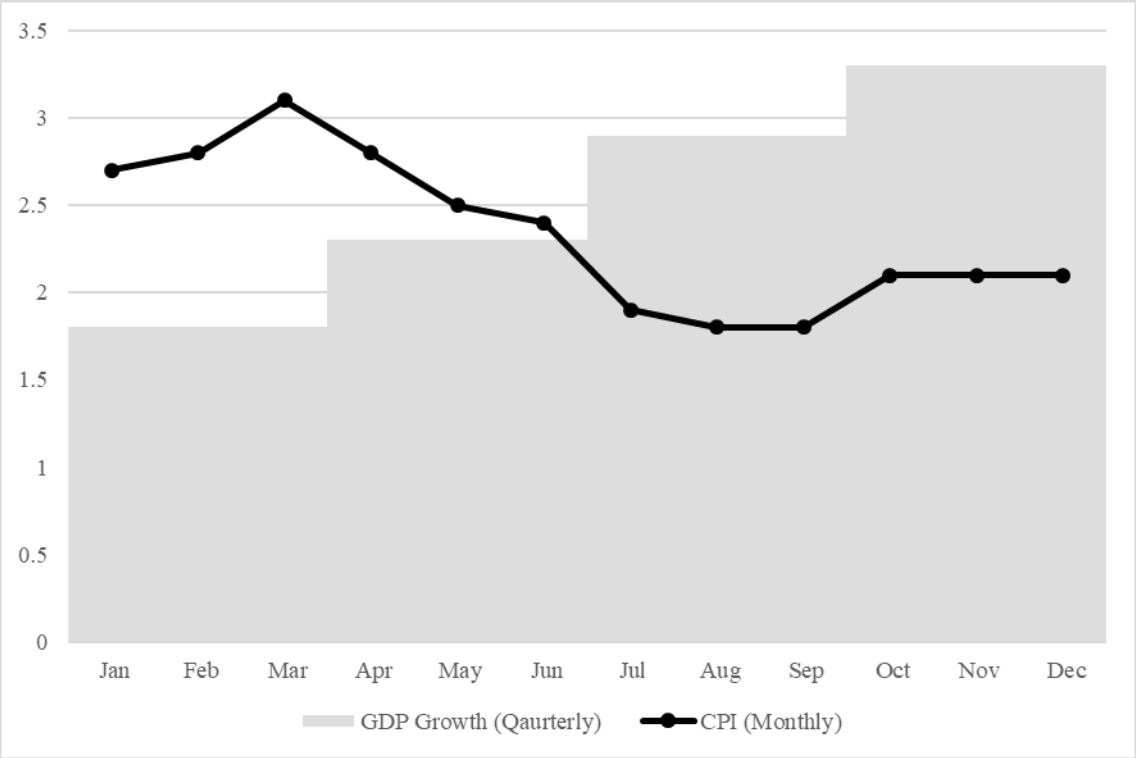



*Figure 7. 2007 UK Growth and Inflation (Office for National Statistics, 2016)*

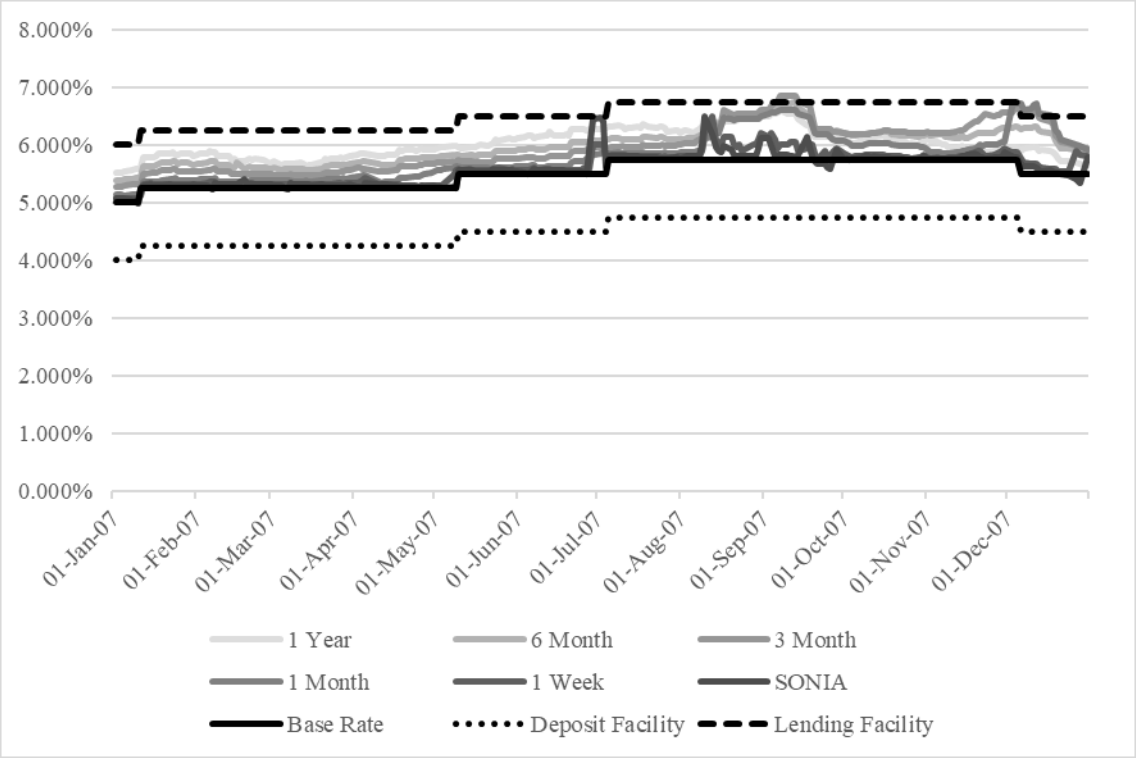



*Figure 8. Sterling Monetary Framework and LIBOR at overnight (SONIA) and longer maturities in 2007 (Bank of England, 2018d)*

Thus, the global instability caused by the turmoil in US financial markets in early 2007 was to a certain extent welcomed by the Bank of England. It dampened expectations and forced a repricing of risk. The subsequent market adjustments alongside the rises in the base rate potentially offered the discipline required to adjust to a more stable path of monetary expansion and economic growth (Bank of England, 2007d, pp. 6–7). Implications for systemic financial stability were not of significant concern. Capital levels were considered good, with the introduction of higher capital requirements under Basel II underway (Bank of England, 2007b, pp. 42–43), while throughout 2006 the Tripartite Standing Committee had been presented with reports from both the FSA and the Bank that concluded that the British system was, if anything, over capitalised (Interview, Senior Treasury Official, 2017).

For Northern Rock, however, the introduction of Basel II and the steady rises in the base rate in the context of market instability were disastrous. Northern Rock had sought to expand rapidly in the property lending business, transitioning from a relatively small building society to the 5$^{th}$ largest mortgage lender in under 20 years (Walters, 2008). This was largely achieved through offering competitive rates of interest to borrowers and securing funds though the interbank and securitisation markets through the 'originate and distribute' model (Treasury Select Committee, 2008e, p. 12). However, the Basel II reforms led Northern Rock, in March 2007, to abandon the commercial property market in favour of residential and buy-to-let lending due to its lower capital requirements (Walters, 2008). This proved problematic, however, as the commercial loan book was pegged to the LIBOR while the residential book was not (*ibid.*). Thus, as market instability and rate rises began, Northern Rock increasingly saw its margins shrink and losses mount, forcing a profit warning in June 2007 (*Financial Times*, 2007) and forcing it to secure a capital requirements waiver from the FSA; thereby delaying its need to

increase its capital (Treasury Select Committee, 2008e, pp. 24–26). In short, the hike in the base rate and the expansion in risk-premia for long-term funding caused by the US sub-prime collapse meant that Northern Rock was witnessing a "creditor run" on the bank, as it could no longer find market funding at a profitable rate (Shin, 2009). As the market became aware of this, the cost of hedging and insuring its assets and liabilities began to rise rapidly (Hamalainen, et. al., 2012, pp. 83–85).

This creditor run was intensified on the 9th August, when BNP Paribas froze three of its funds which were heavily exposed to the US sub-prime market. The interbank market froze, and it became clear that Northern Rock was at risk of failure. This was escalated to the TPA which met on the 14th and 15th August to discuss solutions (Treasury Select Committee, 2008e, pp. 24–26). The question of broader financial stability, however, was not at this point a key Bank of England concern (King, Treasury Select Committee, 2008g, Q4). Thus, the Bank simply offered to provide lender of last resort support but only at the appropriate penalty rates, on the condition the FSA declared Northern Rock solvent but illiquid. No lasting market support was to be provided nor was the penalty rate of the SMF to be cut, despite pressure from both bankers and the TPA to do so (Darling, 2011; Treasury Select Committee, 2008e, p. 38).

## August–September 2007: The Run on the Rock

With the interbank market freezing up, the FSA had become acutely aware of the risks facing Northern Rock and three solutions were pursued:

i. Northern Rock resolving its liquidity crisis through its own actions in short-term money markets and by securitising its debt;

ii. Northern Rock obtaining the "safe haven" of a takeover by a major retail bank;

iii. Northern Rock receiving a support facility from the Bank of England guaranteed by the Government.

(Treasury Select Committee, 2008e, p.36)

A fourth option of the Bank of England mitigating the crisis via money market operations, such as increasing the availability of term funding at the medium and long-term marks or by expanding the range of capital that was accepted in funding operations, was rejected outright by the Bank of England (Treasury Select Committee, 2008e, pp. 38-39). Rather than risk "moral hazard" by implicitly underwriting money markets, the Bank of England sought to maintain market discipline. To reinforce this stance on the 12th of September Mervyn King the Governor wrote a letter to the Treasury Select Committee detailing the Bank's stance on moral hazard and why it would be inappropriate for the Bank of England to act:

> [T]he provision of … liquidity support undermines the efficient pricing of risk by providing ex post insurance for risky behaviour. That encourages excessive risk-taking, and sows the seeds of a future financial crisis. So central banks cannot sensibly entertain such operations merely to restore the status quo ante. Rather, there must be strong grounds for believing that the absence of ex post insurance would lead to economic costs on a scale sufficient to ignore the moral hazard in the future. … If central banks underwrite any [banking activity] that threatens to damage the economy as a whole, it encourages the view that as long as a bank takes the same sort of risks that other banks are taking then it is more likely that their liquidity problems will be insured ex post by the central bank. The provision of large liquidity facilities penalises those financial institutions that sat out the

> dance, encourages herd behaviour and increases the intensity of future crises. (Bank of England, 2007j)

Alongside this the Monetary Policy Committee continued to pursue a hard monetary policy, having raised the base rate again in July, despite pressure from the Treasury and key financial actors to do otherwise (Brown, 2010; Darling, 2011; Treasury Select Committee, 2008e). In short, the Bank of England insisted on treating Northern Rock as an individually failing bank in the context of a strong economy, significant upside risks to inflation and the need for a dampening in financial markets — entirely in keeping with its market discipline strategy. In short, the Bank of England's stance effectively ruled out option 'i' and reduced the probability of option 'ii' as the market contracted. Thus option 'iii' emerged as the only viable option.

On the 12th September, Northern Rock was forced to approach the Bank requesting emergency liquidity support as it was deemed solvent but illiquid by the FSA (Court of the Bank of England, 2007c). This fact was leaked to the BBC who then announced it on a prime time news slot on the 13th (BBC, 2007a). Thus while on the 14th a formal announcement was made (Tripartite Authorities, 2007) the fear had already set in and a bank run had begun, the first in the UK in over 150 years. This further increased Northern Rock's financial hardship and transitioned what was a liquidity problem into one of solvency, as reserves were drained to cover deposit withdrawals, and funding costs rose once more. In order to stem the panic, the Chancellor was forced to announce a series of increased deposit guarantees (HM Treasury, 2007a), eventually providing a full guarantee for all Northern Rock depositors in October 2007 (HM Treasury, 2007b).

With the Bank of England refusing to ease the cost of funding and the state eager to prevent the complete collapse of a deposit-taking institution and stem financial panic, it became clear that funding would now have to come from elsewhere. The conflicting priorities of the Bank of England and the British State were readily apparent. Thus, as Northern Rock transitioned from being solvent to potentially insolvent, it fell to the Treasury to underwrite an unlimited stream of funding to Northern Rock to prevent a default (HM Treasury, 2007c). The Bank consented to operationalise this, but insisted on a further penalty rate and froze the original collateralised debt scheme (Bank of England, 2007c; Court of the Bank of England, 2007b). This left Northern Rock on liquidity life support, underwritten by the state, awaiting a private buyer to take the risk. No such buyer could be found.

## October 2007–February 2008: Nationalisation

The core conflict over the handling of the Northern Rock crisis in summer 2007 was over where the responsibilities lay and what the appropriate course of action was. The Bank of England, while acknowledging its role as lender of last resort, continued to extract itself from financial stability concerns in favour of a narrow monetary policy approach. The Treasury then was left as the only actor able to intervene and thus was forced to carry the burden of underwriting Northern Rock. Having resolved this division of labour following the provision of life support by the state to Northern Rock, the working environment eased and was largely cooperative between the Bank of England and the Treasury in working out the details and establishing a final resolution (Interview, Macpherson, 2017; Senior Treasury Official, 2017).

With the risk of Northern Rock absorbed onto its own balance sheets, the government approached and was approached by potential buyers between August 2007 and January 2008. The Bank of England, however, remained an obstacle in sourcing a private solution. Lloyds TSB informally approached the Treasury, on the condition that Northern Rock would keep its unlimited funds open for two more years, but the Bank "baulked at this", again citing moral hazard as a concern (Darling, 2011, pp. 27–28). The main bidder, however, was Virgin. Virgin was the front-man for a consortium with AIG, which planned to buy a large stake in Northern Rock at a discount, recapitalising the failing bank, but only offering a partial repayment of the Treasury loan (BBC, 2007b). This left the Treasury taking a sizeable risk. This was considered unacceptable, so after a failed attempt at a state-backed collateralised fund (HM Treasury, 2008b) and with market conditions worsening, the decision was made, reluctantly, to nationalise Northern Rock (Darling, 2011, pp. 55–56).

Northern Rock was nationalised in February 2008, with the government passing the 2008 Banking (Special Provisions) Act. This Act provided an interim bank resolution mechanism, overcoming any potential legal challenges to the nationalisation of Northern Rock. It provides for any bank that has either assumed a liability from the Treasury or the Bank of England or is about to do so to be transferred forcibly either to another private body or to a publicly owned subsidiary (Banking (Special Provisions) Act, 2008, 2.), with compensation to be paid out to creditors, shareholders and other parties as if the bank had been left with no state support at all (Banking (Special Provisions) Act, 2008, 5.,7.). Under these provisions, Northern Rock was transferred to the publicly owned holding company UK Financial Investments Limited [UKFI] as a 'temporary' measure to ensure financial stability (HM Treasury, 2008f) and made repayment of all the Bank of

England's loans with interest, replacing them with dedicated Treasury funding (HM Treasury, 2008g). The full risk of Northern Rock was transferred onto the Treasury, setting the precedent for both the distribution of risk and labour for future bailouts.

The development of the British response, then, was largely the result of conflict between the Bank's desire to secure the stability of money and distance itself from financial stability concerns and the Treasury's desire to curb the risk of economic downturn. The rules-based approach adopted by the Bank of England in response to this sought to use market pressures to discipline market actors, while the SMF set the underlying marginal cost of extending credit. This meant that financial turmoil was an important disciplining feature and bank failure could not and would not be met by changes in the regime. Thus, the response must come from within the credit structure rather than from the peak; it was not to be met with fresh central bank money but rather a substitution of credit. The state as the issuer of the most stable credit had to substitute its credit for that of the failed bank, substituting public debt for private and socialising the risk (Bonefeld, 2010). The result risked a political crisis as, while the monetary regime was maintained, the political questions of crisis management and the 'common interest' were now raised.

## The Interim Period

The Northern Rock crisis, sparked by the hubris of its proprietors, provoked a political crisis as the state was found to be unprepared and forced to bankroll a failing bank. This put at risk substantive amounts of public funds as the British State not only guaranteed at one point £51bn of Northern Rock liabilities (Treasury Select Committee, 2009f) but now also all future funding needs of the fifth largest UK lender and largest mortgage lender

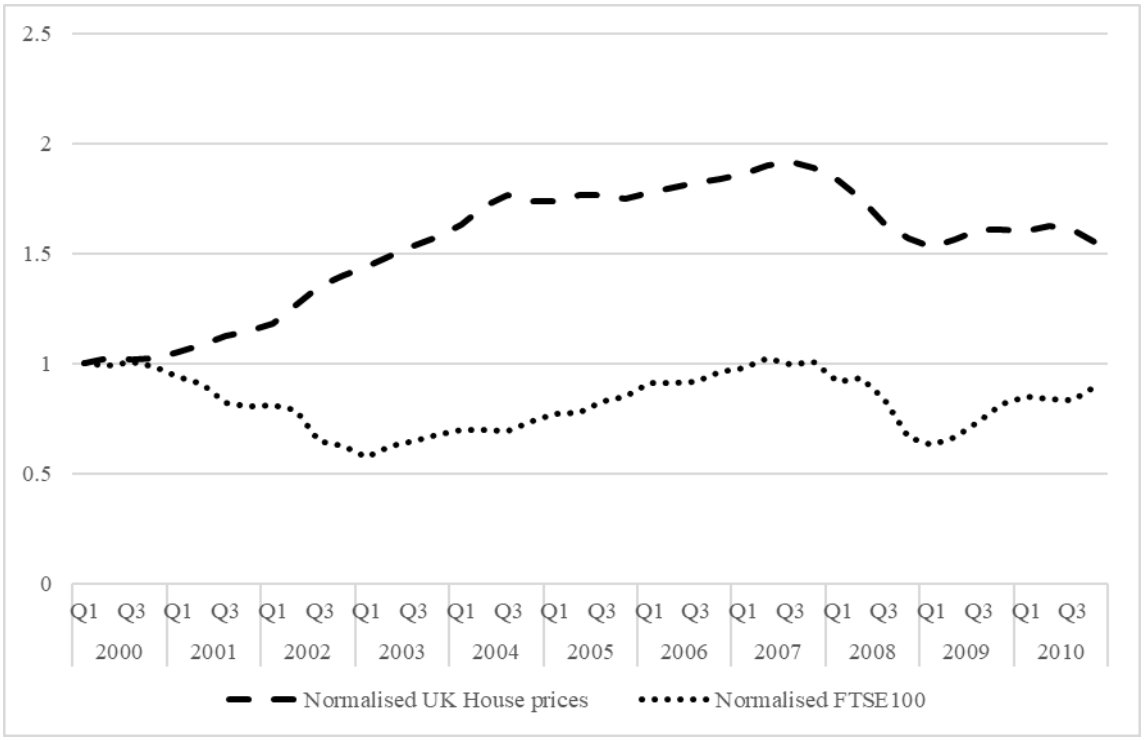



*Figure 9. Normalised UK House Prices and FTSE 100 Index. (2000 Q1 = 1), (London Stock Exchange, 2017, author's calculations; Nationwide, 2018)*

(Walters, 2008). A parliamentary enquiry was launched by the Treasury Select Committee into the incident. The Tripartite Authorities were individually called to account for both how Northern Rock could have failed and why it was left to the public purse to stem the crisis (see chapter seven).

At the same time, the credit crunch was now leading to a collapse in confidence in asset prices. In particular, the UK property and capital markets fell by over 20%. This posed a significant political risk to the New Labour government, which had built its economic strategy on asset-based welfare through cheap credit to households (Montgomerie & Büdenbender, 2014) — specifically on share and house prices (Watson, 2013). Thus the government was facing a 'moral panic' from the British middle classes whose political support had been key to winning elections and secured through increased wealth rather than incomes (Watson, 2009b). However, house prices had been excluded

from the Bank of England's monetary policy target since 2003 (see Hay 2009; Watson, 2003). Thus the sharp fall in house and share prices threatened the political credibility of the government and increased pressure on the Bank of England to take action to secure these markets.

Despite this increased political scrutiny and discontent, the Bank maintained its strategy. The Governor was quick to point out that it had necessarily fulfilled its duty for market liquidity due to the endogenous nature of reserves and had acted appropriately as lender of last resort (Gieve, Treasury Select Committee, 2008g, Q8–9). Furthermore, it was quick to point out that the Bank of England had a clear statutory monetary stability mandate against Consumer Price Inflation but no statutory financial stability mandate (Parker, Treasury Select Committee, 2008a, Q7). Monetary policy and money market operations then remained focussed on dampening economic activity and inflationary expectations, maintaining the base rate at its high of 5.75% until December. The MPC explicitly rejecting a loosening of monetary policy because:

> It was possible that a cut in rates … could be misinterpreted as a signal that monetary policy was focused on supporting the financial system and not on meeting the inflation target. (Monetary Policy Committee, 2007a, pp. 8–9)

In short, despite the first run on a British bank in 150 years, the Bank of England remained committed to its strategy of market discipline and placing at one remove the question of financial stability. Instead, it sought to exert monetary discipline on a potentially overheating economy, placing it directly at odds with the political needs of the British State.

## December 2007: Limiting Contagion

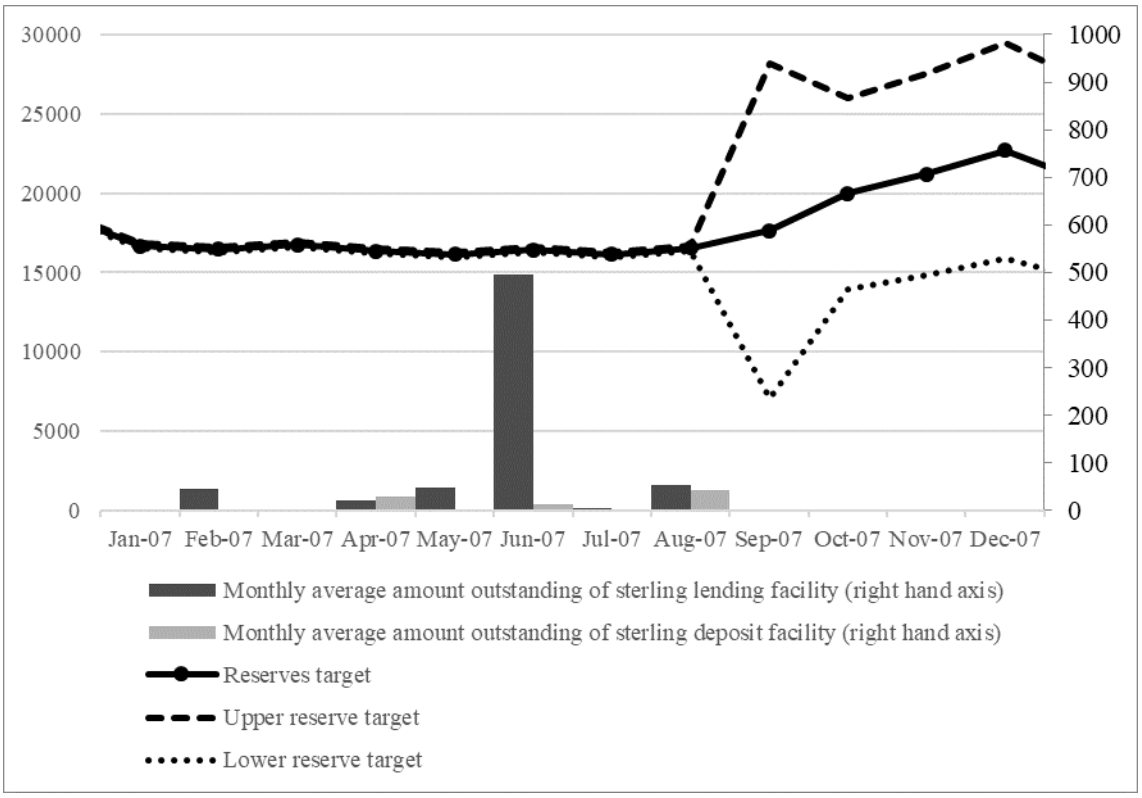



*Figure 10 Sterling reserve target averages and standing facilities use in £m (Bank of England, 2018d)*

The problem that the Bank of England did face in achieving this strategy, however, was how to stop the turmoil caused by the failure of Northern Rock from derailing the Sterling Monetary Framework. The Bank's strategy relied on both a liquid market for overnight reserves and interbank clearing. Prior to Northern Rock this had been maintained by the standing facilities (see Figure 10). The increased instability and uncertainty caused by Northern Rock risked undermining the credibility of other major banks. The standing facilities – intended to deal with operational disruptions - had already attracted stigma for their use (Interview, Senior Bank of England Official A, 2017) when Barclays was forced to use the lending facility for sizeable sums due to a technical fault in August, which sparked a sharp drop in its share price and speculation about its future (Reuters, 2007). In response, the Bank decided to loosen the reserve corridor in the SMF to allow for market

imbalances and to provide more funding security by restructuring its market operations to longer-term funding.

First, to prevent immediate contagion from Northern Rock and the inability for banks to adjust their market liquidity requests, the Bank injected exceptional levels of additional overnight reserves to secure market liquidity. This equated to an increase of 25% for 5 days from the 13th of September, followed by an increase of 50% from the 18th of September until the October MPC when new targets could be set (Bank of England, 2007l). This was accommodated within the SMF by an expansion in the range within which reserves would be remunerated from ±1% to ±60%. Although in subsequent months the endogenous reserves targets increased to reflect the higher demand for liquidity, the bank maintained a ±30% range to allow for any future market volatility (Bank of England, 2007l). This removed the reliance on the standing facilities to accommodate market volatility. This also made it easier for banks to set higher targets and thus increase market liquidity without increased risk of penalties (Bank of England, 2007k).

This did involve removing some element of market discipline from the Bank's approach. A bank facing a payments deficit due to problems in maturity transformation would no longer be immediately penalised and banks could hoard reserves as markets gyrated. However, the reform to the SMF also maintained pressure on banks to restructure, as persistent payments deficits would still result in penalties and it provided no support to other asset markets. Finally, it was also clearly a temporary measure which would be unwound as markets stabilised and it largely served as a temporary fix for the now problematic standing facilities.

Secondly, the Bank restructured its regular market funding structure to provide more certainty in funding. It increased the weighting of its regular market operations to longer-term funds from 30% to 40% between September and November (Bank of England, 2007l, p. 507). In late October, it offered a series of £10bn 3-month Long Term Repo Operations [LTRO] against a broad range of investment grade assets, including mortgage backed securities but at the minimum penalty rate of 100 basis points (Bank of England, 2007i) — which received no market interest (Bank of England, 2007m, 2007n, 2007o, 2007p). December then saw a significant rise in market instability due to global money markets tightening as the sub-prime losses began to unwind and the encroachment of year-end reporting saw most banks attempt to adjust their balance sheets (Bank of England, 2007k).

Subsequently the Bank of England took part in a US Fed-led global initiative to reduce stress in global short-term funding markets (Irwin, 2013, p. 157). This involved the reestablishment of a US dollar swap line[11] with the Federal Reserve and relaunching the October £10bn 3-month LTROs. However, this time the LTROs were against a narrower range of collateral at initially no penalty rate (Bank of England, 2007f), which was raised to a 50 basis point penalty in 2008 (Winters, 2012a, p. 50). This time they were fully subscribed (Bank of England, 2007g, 2007h).

These Extended Collateral Long-Term Repos [ELTRs] were explicitly aimed at preserving the liquidity of mortgage lenders, in particular building societies, who were unable to issue sufficient mortgage-backed securities [MBS] or covered bonds in the

[11] The previous arrangement had expired a year earlier (Interview, Cross, 2017).

capital markets to fund their mortgage books (Interview, Cross, 2017). This served to ease some of the Treasury's concerns about the Bank of England's reticence (Interview, Darling, 2017). However, the narrower range meant that top-grade MBS would be accepted at a significant haircut (Bank of England, 2007f), providing respite and preventing collapse but not a full funding solution. Furthermore, these adjustments to the SMF were initially announced as only being available for two months.[12]

Finally, the Bank introduced outright gilt purchases in January 2008 (Bank of England, 2008a). These were aimed towards establishing a stock of gilts that could be at some point lent out to reduce volatility in collateral markets (NEDCo, 2007) and to provide a more stable backing to the Bank of England's note issue (Bank of England, 2008h). Purchases remained relatively small, however, with the Bank preferring repos for funding operations due to their reduced risk (NEDCo, 2008b).

These operations involved a trade-off for participating banks. The long-term OMOs as well as the October and December LTROs involved paying higher rates of interest for reserves, turning the reserve averaging from a financially neutral scheme to a net cost scheme for banks reliant on long-term funding facilities. Furthermore, any initial liquidity injected by the increase in longer-term funding was drained from the market by fewer short-term funds. This, in a similar manner to the changes in reserves targets, maintained pressure on banks to restructure for, while funding uncertainty had been reduced, persistent imbalance of payments would still result in a clearing crisis.

[12] Although they were continued until May 2010 when they were replaced by the permanent Indexed Long-Term Repo Operations (see chapter six).

Together these two adaptations of the SMF saw the Bank successfully limit the scope for the market turmoil associated with the failure of Northern Rock and global instability from impacting the overnight sterling money markets. It also successfully removed the issue of international payments emphasised in Lapavitsas' work on central banks. By establishing what eventually became a permanent swap line with the US Federal Reserve, the Bank of England insulated the domestic financial sector from international clearing concerns. However, this did not mean that the Bank of England was in the free and clear; it still had both to preserve the credit structure and to exert monetary discipline.

This left several major banks clamouring for further action, even approaching the Chancellor directly to complain about the Governor's reluctance to provide ready cheap liquidity (Darling, 2011, pp. 61–62). In doing so the Bank maintained its strategy of enforcing market discipline; charging banks for the increased certainty in funding while not increasing net systemic liquidity. This strategy of providing, at a price, market liquidity in a manner which does not ease the fundamentals of the clearing constraint while preserving systemic liquidity needs remained the central feature of Bank of England strategy throughout 2008.

## January–April 2008: Market Turmoil and the Special Liquidity Scheme

2007 closed with the MPC reducing the base rate by 0.25%. Market turmoil appeared to be working as credit conditions tightened and inflationary expectations began to fall. This shift in the underlying economic conditions:

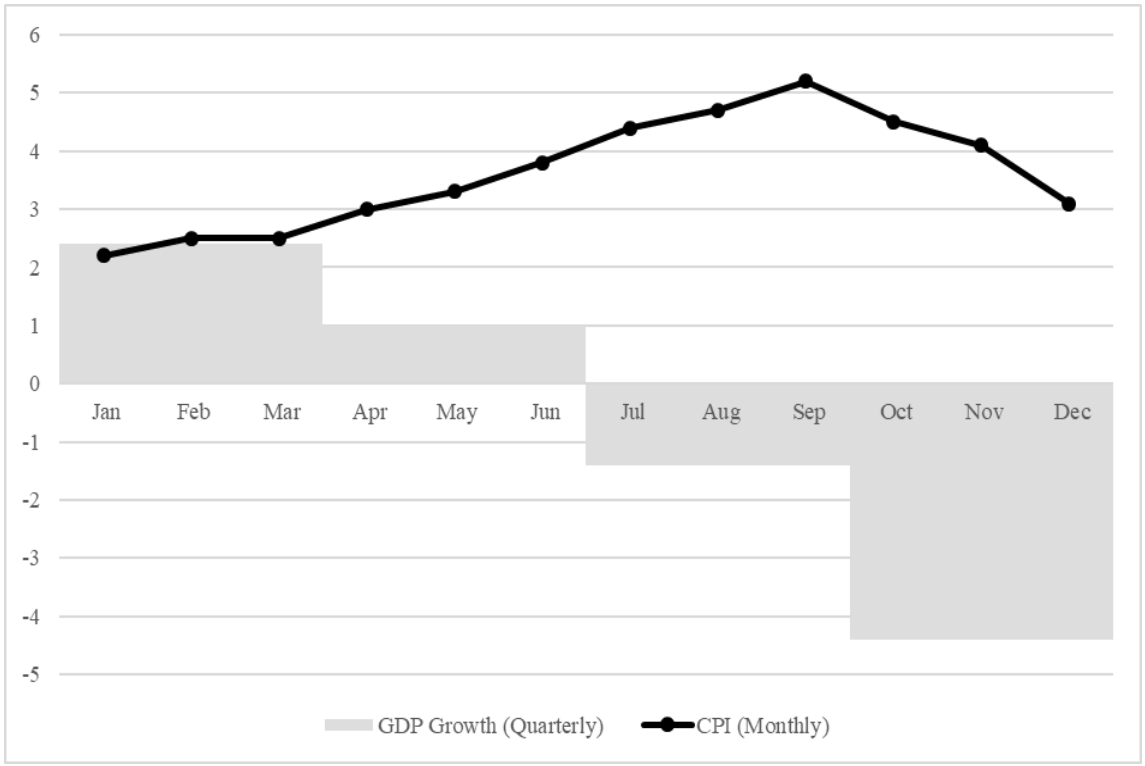



*Figure 11. 2008 UK Growth and Inflation (Office for National Statistics, 2016)*

> put the [Monetary Policy] Committee in a good position to act pre-emptively to reduce the risks stemming from the tightening of credit without losing credibility among wage and price setters (Monetary Policy Committee, 2007c).

Or, to put it another way, the financial contraction had at last turned into the economic contraction necessary to begin to unwind the tightening begun earlier that year.

Meanwhile, the Bank of England was increasingly concerned over the unfolding of the US sub-prime crisis both horizontally across international financial markets (Bank of England, 2008f); and vertically though the interconnection of securities markets through repo funding chains (Interview, Cross, 2017). This picture began to worsen quickly in the early months of 2008, as markets continued to deteriorate and the question of losses on the Asset Backed Securities [ABS] and Collateralised Debt Obligations [CDO] markets threatened several prominent US hedge funds. This in turn raised

concerns regarding the exposure, and thus potential undercapitalisation, of UK banks as an ongoing concern for the TPA (Bank of England, 2008f; Treasury Select Committee, 2009g). The result was a rapid deterioration of interbank markets and high-street lending (Bank of England, 2008d) and by March a credibility crisis was taking hold:

> The situation had been grave in March when almost any bank, irrespective of its fundamental position, was perceived to be at risk because of rumours. The present position now [April 2008] could not be judged in terms of an assessment of the fundamentals insofar as market sentiment reflected *fear and uncertainty*. (NEDCo, 2008c, emphasis added)

Alongside this deterioration in market conditions, there was continued political pressure for the Bank of England to take further action. The Bank of England was heavily criticised in the Treasury Select Committee's report on Northern Rock (Treasury Select Committee, 2008e) and was facing persistent pressure from the government and financial actors to change stance. This led to the Treasury taking legal advice as to whether it could in fact command the Bank of England to take further action (Darling, 2011, pp. 57–58).

The MPC initially responded to this protracted deterioration in economic activity and money growth with two protracted 0.25% rate cuts, ending in April as inflation resurfaced (see Figure 13 & Figure 11). However, the spread on term funding in the interbank market became, and remained, elevated, charging a premium for long-term lending. At the same time, key asset markets had begun to seize up. This threatened the parallel repo and securitisation funding structures that had come to underpin the contemporary market-based banking structure (Hardie et al., 2013).

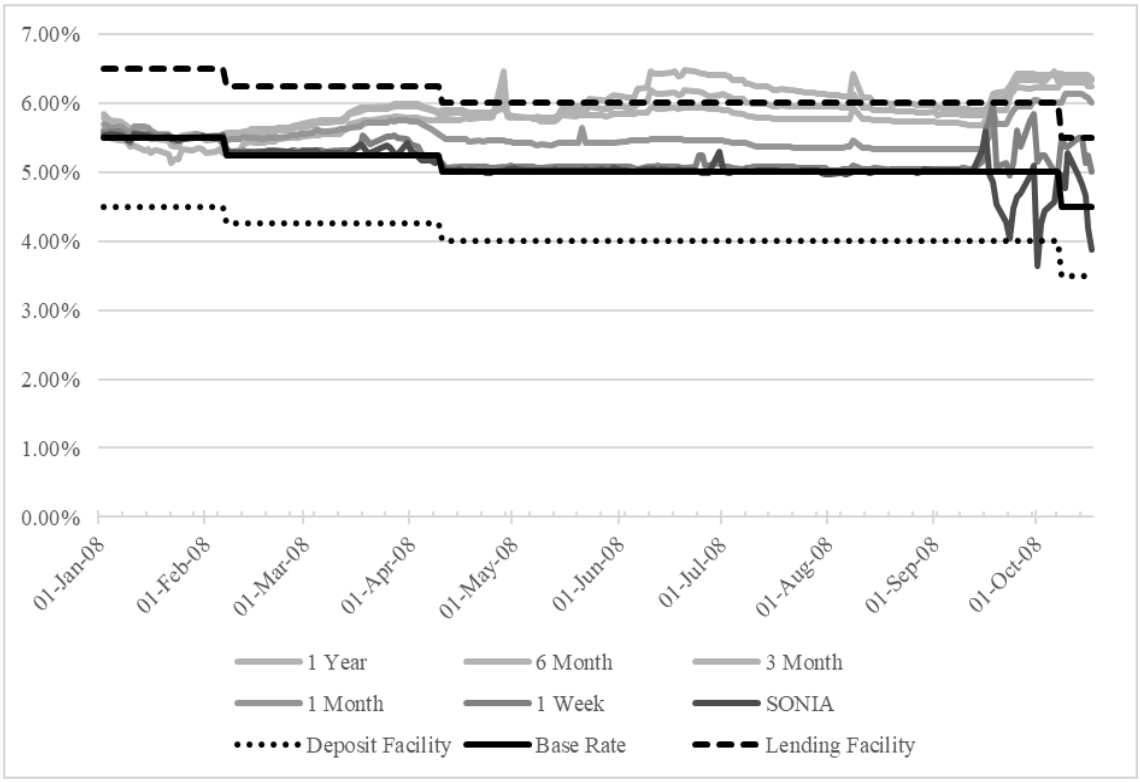



*Figure 13. Sterling Monetary Framework and LIBOR at overnight (SONIA) and longer maturities January–October 2008 (Bank of England, 2018d)*

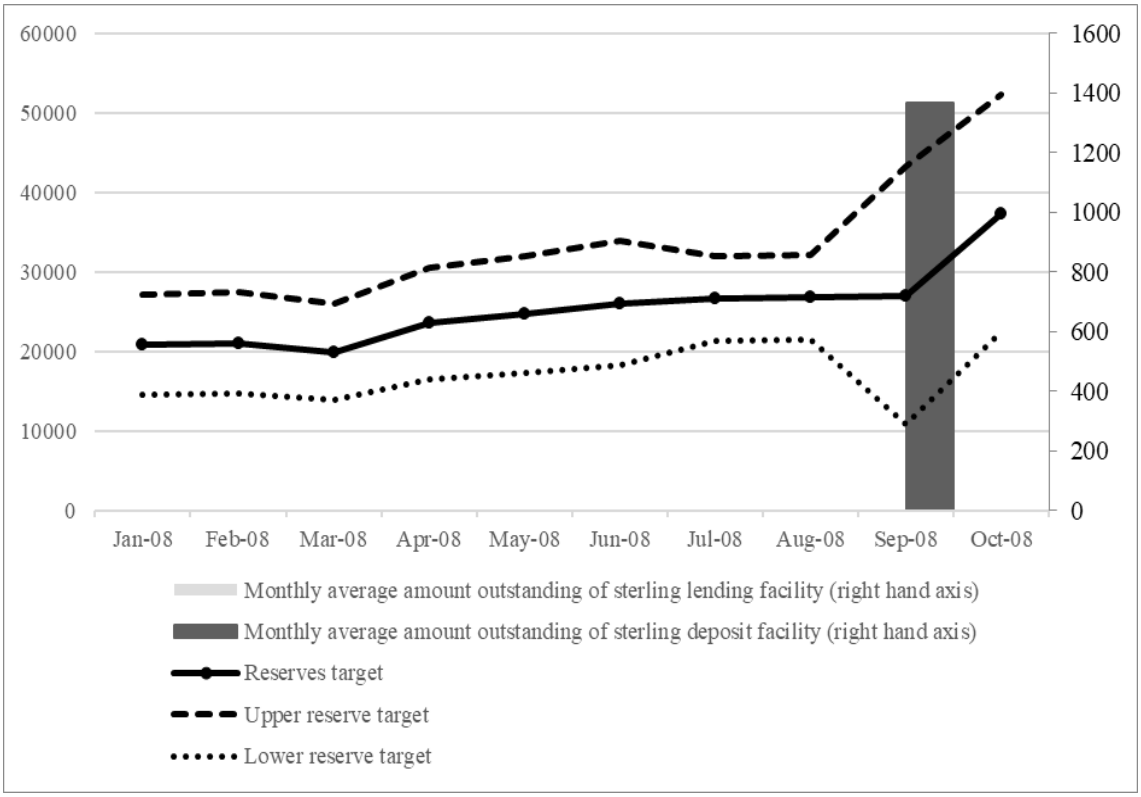



*Figure 12. Sterling reserve target averages and standing facilities use in £m, January–October 2008 (Bank of England, 2018d)*

With the continued losses on US mortgage debt, and the ABSs and CDOs attached to them, key asset markets were becoming illiquid and payment structures based on collateral pools for repos were forcing a contraction of "shadow money" (Gabor, 2016). This risked significant losses as uncertainty over pricing led to collapsing demand, which, due to the fall in market price, led to a further collapse in demand as assets could no longer be used as collateral for further asset purchases (*ibid.*). This process had caused UK mortgage markets to completely seize, threatening a core component of credit provision to the UK economy (NEDCo, 2008c). In response, and after significant Treasury pressure to act (Interview, Darling, 2017) and Treasury involvement in the development of the scheme (Darling, 2011, p. 94), the Bank of England initiated the Special Liquidity Scheme to set a floor on sterling asset markets.

**Special Liquidity Scheme**

The Bank initiated the Special Liquidity Scheme [SLS] on the 21st of April 2008. This scheme enabled reserve banks to swap high-grade but illiquid securities at the Bank for a year for 9-month Treasury Bills minus a 'haircut' and a fee, for a year, with potential to renew twice to a maximum of three years (Bank of England, 2008p). These bills could then be used on the sterling repo markets to raise funds at a stable rate (see Figure 14). The scheme's core function was thus to provide what Perry Mehrling (2011) terms a "Dealer of Last Resort" function. It set the maximum spread between key markets and guaranteed liquidity, at a penalty rate.

The SLS did this by setting the maximum "haircuts" or discounts applied to each asset class in relation to the medium-term bill market. Almost any investment grade asset could be swapped into a gilt at a set haircut, thus, guaranteeing liquidity between markets.

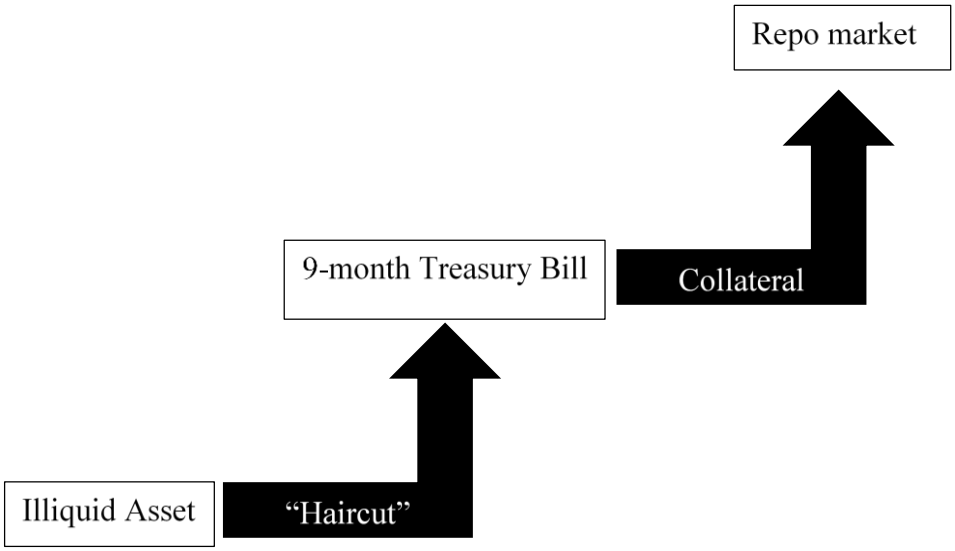



*Figure 14. Liquidity Transformation in the Special Liquidity Scheme*

However, by charging a fee on this conversion equal to the spread between the 3-month LIBOR and Treasury repo rates (Bank of England, 2008p), it meant that in effect any funds raised via this conversion would be at roughly the unsecured market rate. This meant that any firm partaking in the scheme would in effect be borrowing at the unsecured rate through a secured repo transaction. The importance of this, however, is that it allowed the 9-month bill to be rehypothecated as collateral in repo funding structures (Singh, 2014). Thus, in a similar manner to the lender of last resort function, this dealer of last resort facility prevented the unwinding of payment structures, which risked complete system stability. Thus 'the purpose of the Scheme [was] to finance part of the overhang of currently illiquid assets by exchanging them temporarily with more easily tradable assets' (Bank of England, 2008o) ensuring the liquidty and maximum spread beteween investment grade assets and the T-bill market.

So, while the Special Liquidity Scheme provided funding via the repo market, the penalty rate and associated haircuts were above the market rate as the Bank of England was keen to continue to enforce market discipline (Interview, Darling, 2017). Which

meant that the scheme was only desirable in times of significant funding difficulty. Furthermore, the construction of the scheme as a swap meant that ultimately the Bank of England bore very limited risk, as any devaluation in the pledged asset would have to be borne by the bank that pledged it. This was done in such a way as to make the returns constraint bind, providing liquidity but at a price which would not be acceptable in normal conditions. This was entirely in keeping with the existing market-based strategy of using the returns constraint to discipline market actors.

However, given the environment of fear and mistrust in the markets, the scheme would only work if there was sufficiently broad take-up. Otherwise, participation in the scheme could have triggered further deterioration of market conditions for the participant bank. So:

> the big five banks were called into the Governor's office and the discussion took the form of the Governor telling them "you will be using this facility whether you want to or not", and HSBC said "well we don't need to use this facility", and Mervyn said "well we need you to use it so you'll be using it" and they said "ok thank you very much we'll do it". And that de-stigmatised the SLS' (Interview, Cross, 2017).

While this eased the medium- and long-term funding worries in the interbank market, it would be a mistake to see this as a significant change in stance by the Bank of England:

> The Bank's view was that the provision of liquidity was necessary but it was only a "sticking plaster" that provided time for banks to make the adjustments that were needed (NEDCo, 2008b).

Thus, although the SLS did correspond with a slow reduction in the base rate, the latter was premised on an increased risk of economic contraction and the deflationary pressures associated (Bank of England, 2008i). The SLS was aimed at an 'overhang' of illiquid assets, where markets in MBSs and CDOs had collapsed, preventing them from being used in funding operations (Bank of England, 2008o) and thus causing severe disruption in the interbank funding markets as confidence began to collapse. The scheme purposefully left all long-term risk with the banks and to a lesser extent the Treasury and was meant to provide space for banks to seek recapitalisation and come clean on their losses. For, while a significant levels of losses had been estimated from the US sub-prime market, only limited losses had been announced (Bank of England, 2008f).

The Bank of England's stance towards the costs of the crisis remained the same. While it was willing to provide liquidity in order to limit the risks of contagion from the nationalisation of Northern Rock. This risk was conceptualised as an exogenous shock 'preventing markets from operating correctly' (Bank of England, 2008o), rather than a feature of market discipline. The need to recapitalise and declare losses was left clearly at the feet of the financial sector with the stance reiterated that any further failures or emergency support would be handled on an individual basis. The crux of this is that, while the bank was willing to ease the pressures facing the British financial system from a coordination problem perspective, it was not willing to provide a solution to the emerging systemic solvency problem nor to take radical action to provide space for "safe" restructuring, as it still feared moral hazard and prioritised its monetary policy mandate over its financial stability objectives. In the short run, the SLS was successful in reducing spreads on medium-term funding and several major banks sought recapitalisation after

announcing losses from the US sub-prime market. The seas had calmed, but now attention had turned to the state of the ships.

## May–August 2008: Recession, Inflation and Recapitalisation

The decision to ease credit conditions through a slow lowering of the base rate and the launch of the Special Liquidity Scheme largely served to remove the political pressure on the Bank to take action. Instead, as detailed in chapter seven, the political debate had moved on to reforms to the financial stability framework and what the role of the Bank would be post crisis. However, there were still two immediate concerns for both the Bank and the state: the risk of inflation with continued commodity shocks forcing CPI to above the target range from April, and the problem of Bank recapitalisation.

Once again, the storm broke in the US before being rapidly transmitted to the UK. Bear Stearns had run into difficulties in March 2008, requiring US government intervention to secure a takeover, which sparked market volatility and a demand for extra reserves, accommodated by the Bank by a 25% increase for three days (Bank of England, 2008l). However, markets had begun to stabilise to the extent that the Bank reduced the remuneration range from 30% to 20% in July, as the banks increased their capital (Bank of England, 2008m).

2008 saw four of the Big 10 UK banks seek market recapitalisation to accommodate the losses accrued from the fallout of the US sub-prime market (see Table 1). However most of these failed to raise funds on the market, leaving underwriters with the majority of the issues (the exception being RBS; see Table 1). In short, while banks were starting to address their issues, the market was not willing and was not able to invest as liquidity was still scarce, if stable. Also markets were waiting for the other shoe to drop,

| Issuer | Price (p) | Size £m | Take-up | Start date | End Date |
|---|---|---|---|---|---|
| **Bradford & Bingley plc** | 55 | 455.2 | 27.84% | 13/04/2008 | 18/07/2008 |
| **HBOS plc** | 275 | 4,159.0 | 8.29% | 05/04/2008 | 27/06/2008 |
| **The Royal Bank of Scotland Group plc** | 200 | 12,246.0 | 95.11% | 28/03/2008 | 15/05/2008 |
| **Barclays plc** | | | | | |
| **— Open Offer** | 282 | 4,000.0 | 19.00% | 29/06/2008 | 22/07/2008 |
| **— Placing** | 296 | 500.0 | N/A | 04/07/2008 | |

*Table 1. Rights Issues from UK Banks in first two quarters of 2008 derived from (London Stock Exchange, 2017; Rights Issue Review Group, 2008, p. 51)*

as only an estimated 10% of losses had been announced and there was a lot of uncertainty as to where the rest fell (Bank of England, 2008f). This lack of market appetite and the continued unwinding of complex debt instruments led to a slowly intensifying capitalisation crisis.

Facing deterioration in market conditions, both the City and the Treasury began to pressure the Bank of England to ease market conditions to ensure funding and provide further space for recapitalisation, deleveraging and return to normal lending (Brown, 2010, p. 34; Darling, 2011, pp. 94–97). The Bank, however, turned to its mantra of moral hazard and inflation management as taking precedent. The Bank of England thus refused to take any further action in financial markets beyond the SLS, with inflation reaching over 3% for nine months due to a rise in food and oil prices (Bank of England, 2008k). The Bank instead insisted that liquidity had ceased to be the problem and that any further action would risk inflationary pressures becoming unacceptable (Treasury Select Committee, 2008h, Q.80, Q.83) as inflation continued to rise (see Figure 11). This forced the Governor to write a series of letters to the Chancellor explaining the rise in inflation

(King, 2008b, 2008c, 2008d). In fact, the Governor saw the market contraction as beneficial as:

> the rate of increase of other prices and domestic costs, notably pay, must remain low.… [thus] we [The Bank of England] believe that a slowdown in the economy this year, creating a margin of spare capacity, will be necessary to dampen price and wage pressures and ensure that we fulfil our remit by returning inflation to the target. (King, 2008e)

And:

> that the MPC is prepared to take whatever action is needed to return inflation to the 2% target and to keep expectations of inflation in the medium term anchored to the target (*ibid.*)

Thus, in a similar manner to Northern Rock, the Bank of England sought to externalise the question of financial stability onto the Treasury and the FSA. Despite pressure for the Bank of England to take a more active financial stability role (Treasury Select Committee, 2008a) and an impending statutory mandate to do so (Treasury Select Committee, 2008b; this is covered in more detail in chapter seven), the Bank of England sought to subordinate this to its monetary stability objective (NEDCo, 2008a). Thus in a similar manner to the summer of 2007, the Bank of England began tightening funding conditions with the end of the SLS window planned in October and advocated, whenever pushed about market deterioration, that the banking sector should use this opportunity to restructure and recapitalise, even three days before Lehman filed for bankruptcy (Treasury Select Committee, 2008c, Q.42–46). In other words, the Bank of England continued to advocate market discipline despite deteriorating financial markets

throughout 2008. This strategy reached its limit in September 2008 when Lehman Brothers filed for bankruptcy.

## V.v. Lehman Brothers

The failure of Lehman Brothers represented a significant shift in the nature of the crisis. The preceding year had been characterised by a steady pressure on British banks to recapitalise and restructure, whereby market discipline could be used effectively. The failure of Lehman Brothers triggered a panic that triggered the failure of five British banks (see Table 2) and the destabilisation of the entire credit structure. Market discipline in this context would have resulted in the implosion of the entire system. Thus it ceased to be a credible strategy (see Dellepiane-Avellanda, 2015, pp. 228–229) and forced the Bank of England to change course in order to maintain its credibility as a central bank. Given the speed of this transformation, however, the immediate resolution was conducted under the same paradigm as Northern Rock.

Since the failure of Northern Rock two smaller banks — Alliance and Leicester and Bradford and Bingley — had been monitored by the Bank of England and the FSA as ‘causing some concern to the Tripartite authorities’ (Court of the Bank of England, 2007a). Meanwhile the larger banks Halifax Bank of Scotland [HBOS] and Royal Bank of Scotland [RBS] were at the centre of the push to restructure. They remained reluctant however, to announce losses and had attempted to exercise political muscle to ease liquidity concerns (Brown, 2010, p. 31; Darling, 2011, pp. 61–64). By September, it had become clear the initial recapitalisation was insufficient, but conditions had now worsened as markets lost confidence in British banks (NEDCo, 2008a). Before anything

could be done, however, the renewed turmoil turned into a fresh storm. Lehman Brothers filed for bankruptcy on September 15th. Markets collapsed.

In response, the Bank further extended the SLS drawdown window and ELTR operations and expanded access to the US dollar swap line established earlier in the year (Bank of England, 2008c), while providing direct liquidity, at a premium, under emergency liquidity assistance [ELA] conditions (see Plenderleith, 2012). Under the aegis of the 2008 Banking (Special Provisions) Act and the established division of labour, the Treasury then sought to find solutions to the four at-risk banks. Alliance and Leicester was already in the process of being sold to the Spanish bank Santander (*Financial Times*, 2008b). Meanwhile, the FSA declared that Bradford and Bingley 'no longer met its threshold conditions for operating as a deposit taker' and was split into a "good" bank — again sold to Santander — and a "bad" bank which was taken into national ownership (HM Treasury, 2008c).

The main problem remained HBOS and RBS. Together these accounted for approximately 40% of domestic deposits and 26% of mortgages (HBOS plc., 2008; RBS Group, 2008). HBOS had engaged in aggressive expansion in property lending, in particular on commercial property, which as the economy contracted was suffering heavy write-downs. Meanwhile, RBS had engaged in a deeply problematic takeover of ABN Amro which left it taking on significant losses and a highly leveraged funding deficit (Treasury Select Committee, 2009b). With uncertainty over losses and volatile funding markets, it quickly became clear that they could not survive on their own — despite protestation to the contrary (Darling, 2011, pp. 146–147, 159).

Before the government could construct a more lasting solution, however, it became clear that HBOS was at risk of immanent failure. Within two days the HBOS share value had fallen by 33%. This led the government to sign off on a previously rejected takeover by Lloyds TSB — another major UK bank — despite a potential breach of competition legislation (Darling, 2011, pp. 118–129). 13 days later HBOS had exhausted all avenues of action and was facing imminent default without ELS, despite the impending takeover (Court of the Bank of England, 2008b). Meanwhile RBS's international scope and highly leveraged strategy left it taking significant losses with limited capital (Treasury Select Committee, 2009b) and 'was short of some $36 billion after regular operations' and needed emergency access to dollars via the Bank of England swap line (Court of the Bank of England, 2008a). This was provided as part of an ELS package on the 7th of October after a phone call to the Governor from the Prime Minister to guarantee that RBS made it through the week while a more lasting solution was implemented (Brown, 2010, p. 54).

On the 8th of October the government finalised its plan to secure both liquidity and capital for the UK banking sector. Facing markets unwilling to lend or invest and banks in desperate need of recapitalisation, the government decided to take it upon itself to recapitalise the banks. The Treasury offered unlimited funding guarantees to any bank that the FSA considered to be adequately capitalised; meanwhile, offering capital in exchange for equity for any bank that failed the meet the threshold (HM Treasury, 2008a). In short, the state stepped in to replace the Bank of England as both lender of last resort and investor of last resort in a manner similar to Northern Rock's nationalisation nine months earlier. As the crisis unfolded, this required not only a second round of recapitalisations in November 2009 (HM Treasury, 2009d) but also the launch of the

Asset Protection Scheme to insure the legacy assets of Lloyds/HBOS and RBS against losses as they continued to struggle (HM Treasury, 2009a, 2009b, 2009c). Meanwhile, the Bank of England was again relieved of its loans to HBOS and RBS as fresh Treasury funds were used to repay them (Bank of England, 2009a).

This division of labour whereby the Bank of England would provide initial ELA at a significant penalty, which would then be replaced by the Treasury's direct intervention as both a lender and investor of last resort, resembled a streamlined version of Northern Rock. This saw the Bank of England attempt to disentangle itself from financial stability concerns in favour of its Monetary Policy mandate, with a subordinate financial stability mandate (NEDCo, 2008a). Thus, while the 2008 bank failures were conducted with reasonable consensus and cooperation between the Treasury and the Bank of England (Interview, Senior Treasury Official, 2017), the paradigm upon which it was conducted was one developed under conditions of dissensus and reticence on the part of the Bank of England.

The result saw the British State directly substitute £125.2bn of its debt for bank capital and take on the risk for over £200bn of bank funding and assets (Table 2). This risked politicising the state's role in the banking sector as the majority shareholder of two banks — Northern Rock and RBS. Although this was largely resisted by the arm's length control of UKFI Ltd, which managed the government's stake, recurrent scandals in bankers' pay (*Financial Times*, 2010a) and lending practices (*Financial Times*, 2008a, 2009c, 2010b) threatened the politicisation of the state's capital stakes. The ultimate result of the 2007–08 financial crisis was thus to threaten the entire existing paradigm of depoliticised financial management. Questions of liquidity provision, credit growth, financial regulation and now state-owned banks became pertinent. These issues and their

| | **Capital Injections (Direct Cost)** | | **Guaranteed assets (Potential Cost)** | |
|---|---|---|---|---|
| **Bank** | Initial Capital Injection (% stake) | Additional Capital Injection (new % stake) | Credit Guarantee Scheme | Asset Protection Scheme (Potential Liability) |
| **Northern Rock** | £20bn (100%) | N/A | N/A | N/A |
| **Bradford and Bingley** | £37bn (100%) | N/A | N/A | N/A |
| **Royal Bank of Scotland** | £20bn (58%) | £25.5bn (84%) | £3.75bn<br>$9.50bn<br>€4.85bn | £281.9bn (£199.71bn)[13] |
| **Lloyds TSB / HBOS** | £17bn (44%) | £5.7bn (41%)[14] | £1.80bn<br>$-.--<br>€1.00bn | N/A[15] |
| **Barclays** | N/A | N/A | £3.00bn<br>$2.35bn<br>€3.00bn | N/A |
| **Other** | N/A | N/A | £3.125bn<br>$-.--<br>€0.75bn | N/A |
| **Total** | £125.2bn | | £293.575bn (£211.385bn)<br>$11.85bn<br>€9.6bn | |

*Table 2. Summary of British State Bailouts (DMO, 2011; HM Treasury, 2009f; House of Commons Library, 2010)*

[13] The Asset Protection Scheme operated as an insurance policy where the state was exposed only to losses over £60bn at 90% of value.
[14] The recapitalisation of Lloyds took the form of Treasury-underwritten public rights issues that watered down the government's stake, while increasing its volume.
[15] Lloyds Banking Group withdrew from the scheme after one month, instead raising capital through a Treasury-guaranteed rights issue.

impact on the role of the Bank of England form the content of the subsequent chapters, as the Bank of England engaged in sweeping reforms, eventually abandoning the market discipline strategy which shaped the initial response to the crisis.

## V.vi. Conclusions

Two key conclusions can be drawn from this chapter. Firstly, in contrast to the orthodox Marxian approach, the key concerns of the Bank of England were not about international balance of payments. Swap lines with other major central banks were easily established and the Bank of England was able to lend sizeable amounts of USD as part of its ELA. Instead, the problem facing the Bank of England was the internal contradictions of money.

The initial crisis presented itself as one of clearing and returns, as the financial sector realised that it had mispriced assets and engaged in dangerously leveraged positions. The Bank of England sought to make these constraints bind in order to secure the credibility of sterling: first as money by dampening inflationary pressures and then as credit by forcing the banking sector to recapitalise and restructure its operations.

Secondly, by approaching the question of crisis management from a disaggregated view of "the state" which identifies the Bank of England as a policy actor, this chapter has provided an account of the crisis which accounts for the conflict and compromise between the state and the Bank. In doing so this chapter has shown how the development of the British paradigm of state recapitalisation and funding was the result of the dissensus between the Bank of England and British government over the correct policy response. This dissensus in turn was the natural extension of the Bank of England's market discipline strategy, developed in response to the 1997 independence reforms, which was predicated on banks self-insuring against both potential losses and liquidity risk, where

failure must be a credible threat for those that did not. Financial turmoil and restructuring thus served to preserve inflationary expectations by disciplining financial exuberance. This was directly opposed to the British State's desire to ease funding conditions in an attempt to stave off deeper crisis and economic contraction.

Thus, despite the relative cooperation in the management of the 2008 crisis, where consensus had formed over the need for recapitalisation, the strategy deployed was one formed through extended contestation of roles and responsibilities. The protracted failure of Northern Rock and the reluctance of the Bank to significantly ease funding concerns established the Treasury as the ultimate lender and investor of last resort. So, while the crisis did represent a recomposition of the relationship between the state and finance, as emphasised by some authors, this chapter has challenged the implicit assumptions that this was the result of unified "state" strategy. Instead, as the result of the conflicting problems, priorities and strategies of the British State and the Bank of England derived from the foundational contradictions of the political and money in capitalism, this chapter has argued that the "British Plan" was developed and deployed by the state to overcome the reticence of the Bank of England.

This chapter has made the case for reassessing the crisis and the subsequent developments to financial regulation and monetary management as one of competition, conflicting and cooperating strategies as the Bank of England and the British State sought to mediate the contradictions of capitalism. The following chapters develop this reconstitution of state–central bank–finance relations by focussing on the reforms to the Bank of England's monetary strategy and the development of its financial stability operations.

# VI. Monetary Reforms

The longer term cause is that banks lost confidence in each other … Suddenly people thought, yes banks can fail

(Darling, 2008a)

Banks are … on a massive scale, posing the paradox of thrift

(Cable, 2010, p. 136)

[T]here was a hope that the banking system would heal itself and bank lending would be a bit stronger by 2012 and it wasn't

(Interview, Miles, 2017)

The collapse of Lehman Brothers changed the nature of the crisis for the Bank of England. While previously the crisis had manifested as the failure of particular monetary authorities, and thus risked only particular credit moneys, the failure of RBS, HBOS and Lloyds threatened money in general. The crisis transitioned from a situational crisis of a failing bank to the systemic existential crisis of money as credit. At the same time, the crisis had ceased to be one of liquidity and became one of credibility and confidence both in the financial sector and in the future of British capital as a whole. This meant that the strategy of enforcing market discipline ceased to be feasible, as falling expectations led to falling asset values and insolvency. Thus the Bank of England was forced to innovate and develop a new strategy.

Prior to 2008, central banking across the Western world had developed as a largely detached technical practice. It focussed on the use of a single policy tool — the base rate — to hit a single macroeconomic target — normally inflation (Begg, 2009; Borio, 2014). This was conducted in an environment of operational independence, where the central bank would conduct its monetary policy in relative isolation from other state activities (Goodhart, 2011). This was legitimated through the use of scientific and technical discourse around operational decisions alongside a clear political mandate — the inflation target (Jabko, 2009). The underlying premise of these operations was that market forces would transmit decisions regarding a narrow instrument across other markets and thus the economy, in an efficient manner (Turner, 2012).

The events of 2008 directly challenged this model and began a period of policy innovation and implementation that saw the Bank of England assume increasingly important roles. It set the limits to market discipline through the new Sterling Monetary Framework [SMF]. directly targeted asset prices and economic activity though 'exceptional' monetary policy and as the crisis transformed into a structural crisis took increasingly active stances on the government's fiscal policy and broader economic management. In short, it abandoned the pre-crisis policy paradigm.

The range of new operations, schemes and 'exceptional' monetary policies conducted by both the Bank of England and central banks globally has already attracted significant attention from finance and central banking scholars. However, these accounts tend to be piecemeal, focussing on either the response of central banks to the changing dynamics financial structures (Dow, 2017; Gabor, 2014a, 2016; King, 2016; Mehrling, 2011; Turner, 2016) or on the efficacy of these reforms (Bridges & Thomas, 2012; Churm, et. al., 2015; Lyonnet & Werner, 2012). While some have pointed to the potential political

economy implications of these reforms — especially in terms of the risks to central bank independence (Borio, 2014; Bowman et al., 2013; Gabor, 2014a; Gabor & Ban, 2016), these approaches have tended to treat this as either a consequence of or a factor external to the reforms, rather than as a part of the policies themselves.

The political economy literature, meanwhile, has tended to focus on the lack of change within state strategy as a whole, emphasising the continuity of narratives and policies that focussed on marketisation of the state (e.g. Gamble, 2014; Hay, 2013b; Hodson & Mabbett, 2009), as well as the continued reliance of economic development on house price and financial asset growth (Green & Lavery, 2015; Hay, 2013a).Within these studies, central bank actions have been viewed as part of the necessary socialisation of private losses inherent within neoliberalism (Gamble, 2014). While these approaches correctly identify the much deeper problem facing British capitalism — the lack of a coherent growth model — their analysis understates the drastic change undergone at the Bank of England and the importance of relationships with the British State in shaping the post-crisis policy process.

This chapter instead approaches the development of the Bank of England's policies as the development of a strategy to overcome a sequence of crises of money. By focussing on the central bank problem as the core issue facing the Bank of England, this chapter provides an account of the political economy of the Bank of England's deepening engagement with financial markets and actors and with the British state system. In doing so, it reveals how the structural features of both the credit structure and the Bank of England's exceptional monetary policy were in part predicated on the continuation of neoliberal state strategies through austerity politics. It also reveals how the Bank of England's monetary policy played an important role in the restructuring of class relations

in the UK by shielding capital from the costs of crisis, thereby leaving labour to bear the necessary costs of restructuring.

This chapter is structured around the three crises of money faced by the Bank of England: the existential crises of money as credit and money as means of exchange triggered by the collapse of Lehman's brothers and the ongoing structural crises of money as capital experienced since 2010. Each brought with it a move towards a deeper engagement with financial structures: first, in an attempt to secure liquidity and the vertical stability of the credit structure; second, to shore up asset values and prevent a negative spiral of insolvencies, as falling expectations led to systemic deleveraging and hoarding of money as money; and finally in an attempt to restore profitability to UK finance and the economy by actively subsidising credit and banking. Each brought with it a deeper engagement with both the British State and the British economy as a whole, as the Bank of England developed its new role as an active economic manager and subsequently reached the limits of its ability to do so.

## VI.i. Crisis of Money as Credit

The failure of Lehman Brothers and the need for state bailouts of the banking sector caused market confidence to go into freefall. Markets for corporate debt and asset-backed securities froze. This prevented them from being used in funding operations, risking further default, as financial institutions could not raise cash and their asset values were questioned (Bank of England, 2008g, pp. 8–13), or further losses as illiquid markets were forced to meet debt and collateral obligations (Gabor & Ban, 2016). This led to a second-level credit crunch in the real economy, as debt originators could no longer find buyers, preventing successful securitisation of risk in an unstable environment (Bank of England,

2008g, p. 37). The internal collapse of the credit structure led the Bank of England to drastically redesign its liquidity operations, eventually guaranteeing the liquidity of almost all asset classes in order to preserve the ability of credit to function as money.

This crisis of money as credit led the Bank of England to restructure its money market operations, both expanding and deepening its involvement. The new facilities and operations that became incorporated into the SMF involved the Bank of England both setting the bounds of market discipline through liquidity insurance and actively intervening in markets as the "market maker of last resort" [MMLR] (Bank of England, 2013a, 2013f). These reforms came in two phases. First, there were the reforms developed from already-existing facilities and implemented immediately after the collapse of Lehman Brothers in October 2008. These marked an initial shift in strategy from 'market discipline' to 'bounded market discipline'. The second phase came as a more protracted review of the Bank of England's money market strategy post-crisis and worked to solidify this new strategy and expand the Bank of England's role as Market Maker of Last Resort.

## October 2008: 'Bounded Market Discipline'

In the aftermath of the fall of Lehman Brothers, the Bank of England launched a drastic reform of its Sterling Monetary Framework. The state of the interbank market and the deterioration of the credit structure, however, led the Bank of England to engage in two immediate reforms — the rebranded Operational Standing Facilities and the Discount Window Facility. These set out 'for the first time, … the way the Bank's market operations would provide liquidity insurance to meet its financial stability objectives' (NEDCo, 2008b). This marked a significant shift in the Bank of England's approach to the maintenance of the credit structure from 2006, normalising previously 'exceptional'

policies and formally embracing liquidity insurance as an operational component of its operations.

**Operational Standing Facilities**

The Operational Standing Facilities were launched in an attempt to reverse the stigmatisation of the Standing Facilities (NEDCo, 2008b) and reduce volatility in the overnight market by narrowing the corridor to ±25 basis points from ±100 (Bank of England, 2008b). Since August 2007, the short-term liquidity support component of the SMF — the Lending Facility — had been significantly stigmatised and left unused. With the collapse of Lehman Brothers, the interbank markets froze. This left participants, other than those in receipt of government liquidity lines, unable to access short-term funding. Institutions left holding excess reserves deposited them in the Deposit Facility (see Figure 16) rather than lend them in the market. This caused significant instability in the short-term money markets and a widening of spreads (see Figure 17).

The Operational Standing Facilities were designed to combat this problem. First, they reduced the cost implications of access. Ideally, this would both reduce overnight volatility to a tight ±50 basis point range and facilitate increased use by firms facing "frictional" issues, as the penalty for doing so was significantly reduced (Bank of England, 2008e, p. 21). Second, the rebranding as "Operational" was meant to remove the implication that firms accessing overnight funds were doing so due to underlying funding problems, as opposed to short-term operational complications. This would also allow firms to state higher reserves targets with lower risk implications for shortfalls due to market instability. Finally, the facilities were significantly less transparent, as average use




*Figure 15. Flow of funds implied in Operational Standing Facilities*

data would only be released after the end of each period (Bank of England, 2008n, p. 380). This proved relatively successful when in February and March the Lending Facility was utilised with no market disruption (Figure 16).

The implication of this reform, however, was that the Bank of England was going to engage more readily in active management of funds. Under the reserve averaging system, funds deposited or lent through the OSF would be injected or absorbed through short-term OMOs of up to one month (Bank of England, 2008h). In short, the Bank would engage in on-demand maturity transformation between the overnight and one-month horizon (see Figure 15).

Thus, as the reserve target tightened in an insecure market environment, the Bank ended up as a dealer of last resort between reserve lenders and reserve borrowers, thereby bearing the counterparty risk for reserve lending and acting as a market maker for reserves by transforming overnight into longer-term funding. In other words, this reform also involved the Bank becoming more embedded and active in short-term funding markets, as it encouraged the use of the OSF and was forced to take on more risk in conditions of market friction.

Thus, the OSF represents an initial step away from the ‘market discipline’ strategy towards a more ‘bounded market discipline’ strategy, as the market continued to serve as the primary form of funds allocation but within narrower constraints. It also represented

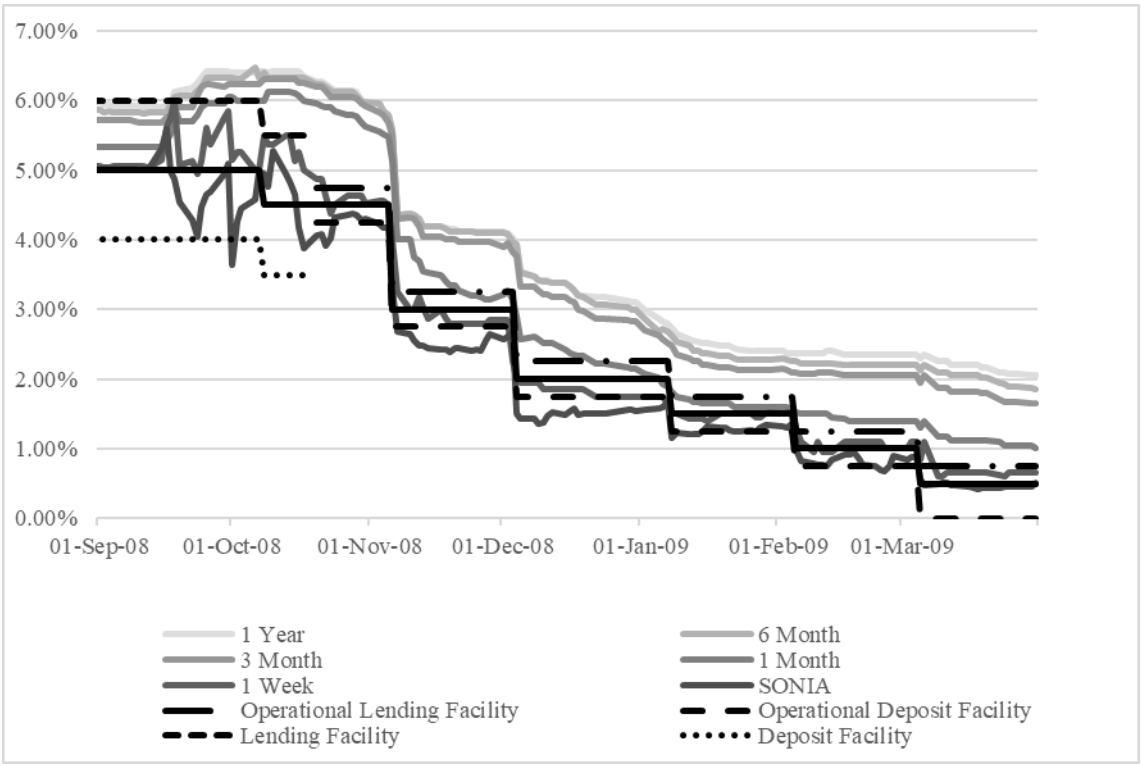



*Figure 17. Sterling Monetary Framework and LIBOR at overnight (SONIA) and longer maturities in September 2008–March 2009 (Bank of England, 2018e)*

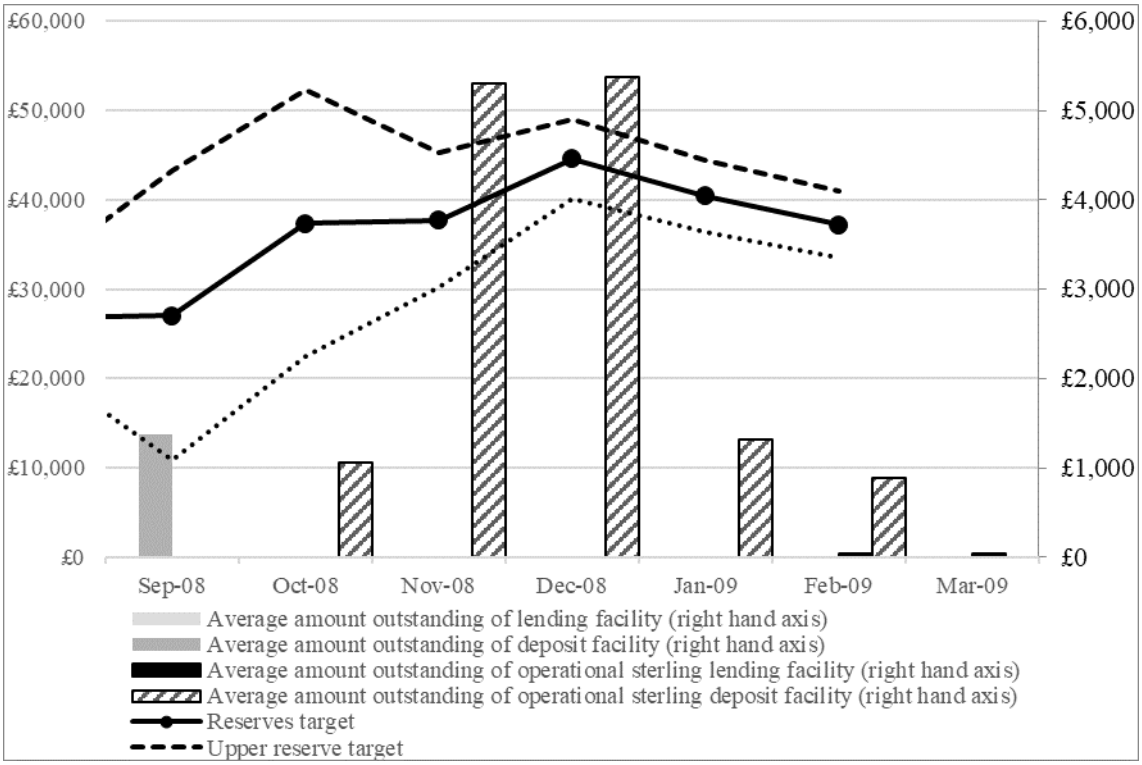



*Figure 16. Sterling reserve target averages and standing facilities use in £m (Bank of England, 2018e)*

a shift towards a more cooperative stance with financial actors who had requested this reform since November 2007 (Bank of England, 2007k). It is worth noting, however, that the OSF also brought the SMF into line with the initial proposal from 2003 (Tucker, 2004), that it operates in a similar manner to the SF and with the abandoning of reserves targeting in March 2008, has become relatively redundant. So, while this indicates an important step in Bank of England strategy, especially when considered alongside other reforms, it is a limited one.

**Discount Window Facility**

The second main reform in 2008 was the introduction of the Discount Window Facility [DWF]. This was launched as an explicit liquidity insurance facility, aimed at replacing the financial stability component of the Standing Facilities and placing them in a separate facility (Bank of England, 2008e). In doing so, it sought both to provide clarity and a backstop to institutional liquidity and to reduce the stigma of the OSF, by emphasising the two different functions of overnight funding to cover technical difficulties and to set bounds on the interbank market and the provision of lender of last resort funding (NEDCo, 2008b). The DWF formed the latter.

Operationally, the DWF was a permanent replacement for the Special Liquidity Scheme, which was due to close its drawdown window on the 21st of October (Bank of England, 2008p). It allowed registered institutions to swap, at a set haircut and interest rate, a wide range of potentially illiquid assets for liquid Treasury bills as a means of securing bilateral funding (Bank of England, 2008b) in the same manner as the Special Liquidity Scheme (see Bank of England, 2008p). The DWF, however, differed in three respects. Firstly, the range of collateral accepted was significantly wider than the SLS

(Bank of England, 2008q), eventually expanding to cover almost all forms of collateral, including the raw loan book (Bank of England, 2011i). Second it charged a variable rate, depending on the proportion of the asset book leant rather than on a market determined rate (Bank of England, 2008b), which in principle would be more expensive in a "steady state" (Fisher, 2010b). Finally, it was initially only at a shorter term of 30 days rather than nine months, although this was extended to 364 days in January 2009 for an additional 25 basis point fee (Bank of England, 2009l). These served both to limit the potential exposure of the Bank of England to the counterparty risk and to act as a disciplinary force on participants.

The DWF was designed to provide institutional level support rather than market support, as the range of potential participants was limited and the rate charged was institutionally dependent (Bank of England, 2008b). Furthermore, the collateral would be valued at market price where possible, and when not would receive a higher haircut (Bank of England, 2008b). Thus the scheme only set the limit on liquidity premia for assets, guaranteeing upwards convertibility of collateral as a dealer of last resort facility (see Mehrling, 2011). Thus, markets would continue to set the price of assets and make the returns constraint bind, while the Bank of England mitigated the clearing constraint by guaranteeing convertibility.

However, by making the terms of these facilities explicit beforehand, the Bank of England effectively set bounds on the markets' liquidity premia, as certain key institutions could always borrow at a set maximum. Thus, unlike the SLS which simply guaranteed convertibility based on the market rate, the DWF shapes the market rate, especially as the Bank sought to reduce the stigma of the DWF through its regular use in funding operations (Bank of England, 2009o, p. 8), effectively making it an active market-

shaping facility. This became even more pronounced when in 2014 the Sterling Monetary Framework was expanded 'to include broker-dealers and Central Clearing Counterparties (CCPs), giving non-banks access to our permanent liquidity insurance facilities for the first time' (Shafik, 2015).

Although the DWF remains unused due to the significant stigma attached to it as a lender of last resort facility (Interview, Senior Bank of England Official A, 2017; Winters, 2012, pp. 60, 98), it represented a significant transition in Bank of England strategy alongside the OSF. The Bank of England, in the face of critical payments and clearing problems, which placed at risk the credit structure and thus money, was forced to shift away from 'market discipline' towards 'bounded market discipline', where liquidity was guaranteed but asset values were not. Thus financial institutions would no longer have to actively hedge against liquidity risk and develop secure funding strategies, as the Bank guaranteed institutional liquidity at pre-announced rates and thus bought proxy market liquidity, thereby bounding the market. By securing money as credit through the provision of institutional liquidity against an increasingly wide range of assets, the Bank of England was laying the foundations for an increasingly expansive approach to liquidity insurance. This was a strategy in which the Bank of England was to become an increasingly discretionary actor, and market discipline became increasingly bounded, as fears of 'excessive self-insurance' (Winters, 2012, pp. 62–63) took precedence over the moral hazard of intervention, a shift which coincided with the Bank of England's concerted push to enhance itself as the primary financial regulator (see chapter seven).

## 2010–2015: Market Liquidity Insurance

Alongside the crisis reforms of the OSF and the DWF, the Bank of England also launched a review of its market operations in October 2008 (Bank of England, 2008e), followed by a sequence of further reviews (Plenderleith, 2012; Winters, 2012). The result was a continued process of deepening and widening the Bank's involvement in the liquidity of both money and asset markets, eventually adopting interventionist rather than passive facilities as a "Market Maker of Last Resort" (Bank of England, 2013a, p. 11).

### Indexed Long-Term Repos [ILTRs]

The first of these reforms was the introduction of the Indexed Long-Term Repos [ILTRs]. This, like most of the early reforms, was the formalisation of a previously "exceptional" policy. ILTRs replaced the Extended Collateral Long Term Repo Operations [ELTRs] launched in December 2007 (Bank of England, 2010b), thereby permanently expanding the range of collateral that could be used in the Bank of England's funding operations. In a similar manner to the ELTR, the ILTR is conducted once a month at a set maturity — either 3 or 6 months — and with a set sum on offer (Bank of England, 2010c). Unlike the ELTRs, however, the Bank of England would differentiate between the "narrow" or normal funding collateral pool and the "wide" pool of additional accepted collateral (Bank of England, 2010b). Each pool was charged a different interest rate, expressed as a spread against the base rate, and had a different sum advanced against it. The precise sums and price were 'based on the pattern of bids received and the Bank's preferences for supplying funds against each collateral set' (Bank of England, 2010c). In other words, the Bank of England actively managed the spread and liquidity between the two collateral pools.

Thus the Bank now actively provided liquidity against a wider range of collateral as part of its ordinary operations. This was initially only against a collateral pool of 'high-quality debt securities that, in the Bank's judgement, trade in liquid markets' (Bank of England, 2010b) and was thus narrower in scope than the DWF. But this proved insufficient when the market turmoil of the European Sovereign Debt Crisis led the bank to launch the Extended Collateral Term Repo Facility [ECTR] in December 2011 (Bank of England, 2011g).

The ECTR was an exceptional liquidity facility, that allowed banks to use any DWF collateral (Bank of England, 2011f), which, on the recommendation of the Winters Review, was then normalised by expanding the collateral allowed in the ILTR facility (Bank of England, 2014h). Thus, while the DWF provided a penalised backstop to individual banks' collateral liquidity, the ILTRs saw the Bank of England attempt to actively shape the market for this collateral.

That being said, the ILTR was still a passive scheme. For while the Bank of England set the sum available, the distribution of funds and the price at which they were lent, when conducting ILTRs the Bank of England did not directly enter markets but instead made funds "available". Thus, the extended sum was also dependent upon the market demand for funds. Indeed from 2012, ILTRs remained relatively unused, as the second round of Quantitative Easing and the launch of the Funding for Lending Scheme led to a surge of liquidity and collateral (discussed below). Thus, the ILTR offered 'liquidity insurance', allowing the Bank to mediate between markets in times of stress (Bank of England, 2014c) securing the vertical convertibility of debts and thus the liquidity of the credit structure, two operations the Bank of England actively sought to

avoid undertaking in 2007, as they provoked moral hazard but explicitly embraced by the Winters Review in 2012.

The Winters Review of the SMF, commissioned by the Court of the Bank of England in 2012 (Bank of England, 2012i), concluded that, while the SMF was functional, it did not extend far enough. In sharp contrast to the narrative of 'moral hazard' of 2007 and 2008 the Winters Review was concerned with 'excess liquidity self-insurance', which might limit credit extension (Winters, 2012, pp. 62–63). The review thus recommended that the bank further extend its operations, allowing more actors to access its facilities and a wider range of collateral to be accepted (pp. 85, 92–97), policies which, as noted above, were subsequently implemented.

Crucially the Winters Review also recommended that the Bank of England openly establish itself as a "market maker of last resort". This meant the establishment of a permanent discretionary facility with the explicit purpose of directly intervening in markets perceived as stressed to ease pressure (Winters, 2012, pp. 85–86). This had initially taken the form of the ECTR, but became formalised in the Contingent Term Repo Facility [CTRF], whereby the Bank of England reserved the right to intervene in any market on any terms. This represented the final step in the development of the bounded market discipline strategy, as the Bank of England continued to expand its operations from lender, to dealer and then, finally, to market maker of last resort.

**Market Maker of Last Resort: From ECTR and CTRF**

The development of MMLR functions at the Bank of England came in response to the market turmoil caused by the European Sovereign Debt Crisis. While UK banks were not directly exposed and had built up their capital levels (Bank of England, 2012e, p. 6) the

fear of contagion was causing significant stress in funding markets (Bank of England, 2011h, pp. 280–285). Thus, with the deepening turmoil in 2011, the Bank of England launched the ECTR.

The ECTR was a facility whereby the Bank of England would announce additional repo auctions against almost any collateral at its discretion (Bank of England, 2011f). This was specifically 'to make liquidity available against the least liquid collateral, to the market as a whole' (Fisher, 2012). There would be no penalty rate or imposed spread between types of collateral as in the DWF and ILTR (Bank of England, 2011f).

Thus, the ECTR saw the Bank of England declare, and in June 2012 activate, its intention to secure the vertical convertibility of almost all asset markets. Unlike the DWF, which provided a backstop to markets by guaranteeing the convertibility of any asset at a set penalty, and the ILTR, which sought to actively mediate the spread between different collateral pools, the ECTR saw the Bank of England step in to support any market in an emergency. In other words, the Bank of England declared its intent to secure market liquidity by stepping in as a universal buyer.

In January 2014, the ECTR was renamed the Contingent Term Repo Facility. It had the specific aim of allowing:

> the Bank to provide liquidity against the full range of eligible collateral at any time, term and price it chooses, in response to actual or prospective exceptional market-wide stress. Its terms will be set by the Bank, and announced via a Market Notice, each time it is deployed, in light of prevailing market conditions. (Bank of England, 2014h)

In other words, the Bank of England now explicitly reserved the right to intervene in any market at any price if it expected or believed it is experiencing exceptional stress. This in

effect completed the development of the Bank of England's strategy of bounded market discipline.

Both the ILTR and the MMLR facilities continued to operate under a logic of 'bounded market discipline'. The pricing of assets and, in 'normal' conditions their liquidity premia, would be determined by financial markets. Thus, financial actors would still be bound by the returns constraint and the need to lend. Furthermore, the Bank of England was not actively entering markets and directly setting up repo transactions. Instead, both the ILTR and the MMLR facilities saw the Bank of England position itself as a passive counterparty, willing to engage in transactions up to a certain amount on certain terms. Financial actors would still have to choose to take part in these open operations. Thus, both the ILTR and MMLR facilities acted to set *bounds* on the market — points at which it no longer made sense to engage in market transactions.

## Bounded Market Discipline

These reforms of the SMF involved the Bank of England abandoning its strategy of strict market discipline to one of bounded market discipline. This meant abandoning the previous paradigm of single market intervention with efficient financial arbitrage distributing the impact, a strategy whereby over-issue of credit was curtailed by the threat of bank failure if excessive risks were taken, theoretically leading banks to self-insure their positions and limit exposure.

The failure of three of the four main retail banks in September of 2008 led to the logical limits of this strategy. Facing a total collapse of the credit structure, it ceased to be viable to allow market discipline to take its course. To do so would have risked money as credit and destroyed the credibility of the British banking system, the Bank of England along with it. Instead, the Bank of England, alongside most other central banks, had to

abandon the efficient market hypothesis and adopt increasingly discretionary facilities to secure the credit structure (Turner, 2012).

The Bank of England's new strategy of bounded market discipline allows market forces to set certain key factors — most importantly asset value — but other factors are limited, most notably market liquidity and the spread between markets (see Figure 18). Operationally, this is achieved through four new elements to the SMF. The OSF tightly binds the overnight lending rate by engaging in maturity transformation between the overnight and one-month horizons in high-quality collateral markets. The DWF sets the maximum interest rate, spread and haircut between almost all asset classes. The ILTR then mediates market tensions by shifting distributions of funds and spreads between different asset classes. Finally, the ECTR sees the Bank of England explicitly adopting a discretionary toolset, allowing it to engage actively with markets to secure liquidity when deemed appropriate.

These transformations, however, bring with them new political and economic implications. Firstly there is the problem of moral hazard. While the unlimited lender of last resort facilities, such as the DWF, continue to carry a significant penalty rate, the range of collateral accepted in ILTRs and the CTRF explicitly guarantee the liquidity of all assets with no penalty. This reduces the short-term risk of holding them, and thus of generating fresh assets through credit expansion. While this did not pose an immediate problem, especially given the concern with excessive self-insurance and stagnant credit growth in 2010–2014, the Bank had significantly reduced its ability to credibly invoke market discipline in future scenarios. Thus it is increasingly dependent on adequate financial regulation and supervision to secure stable credit expansion, as it now stands ready to bail-out market failure (c.f. Dow, 2014).

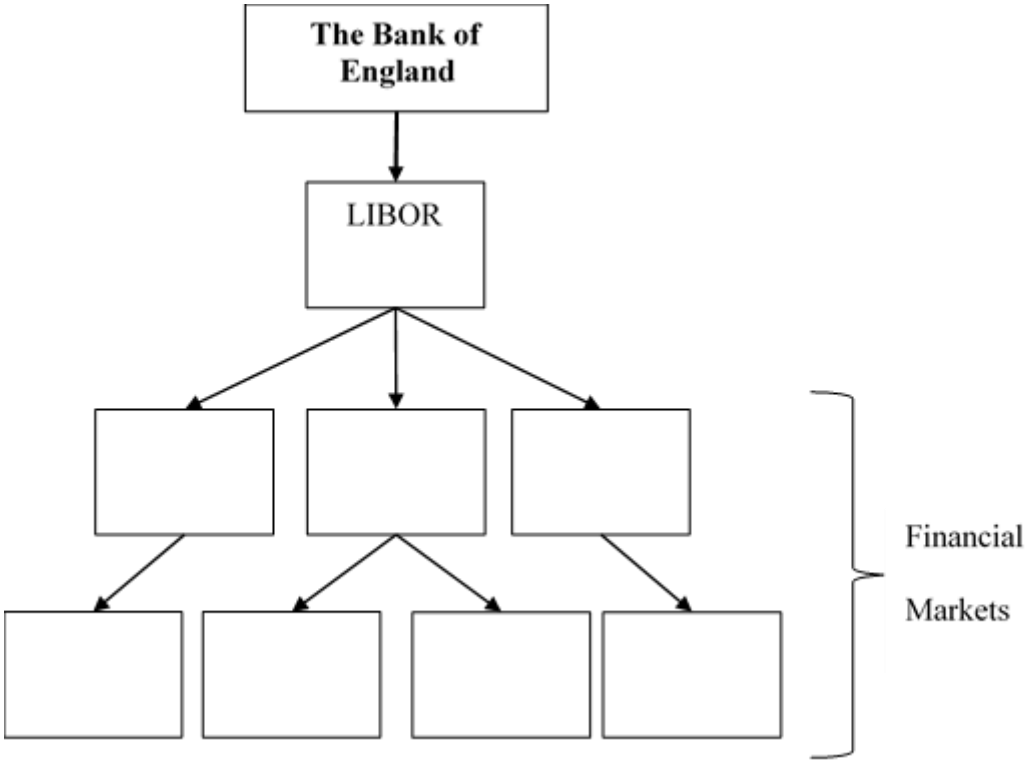



*Figure 19. Bank of England market strategy before 2008*

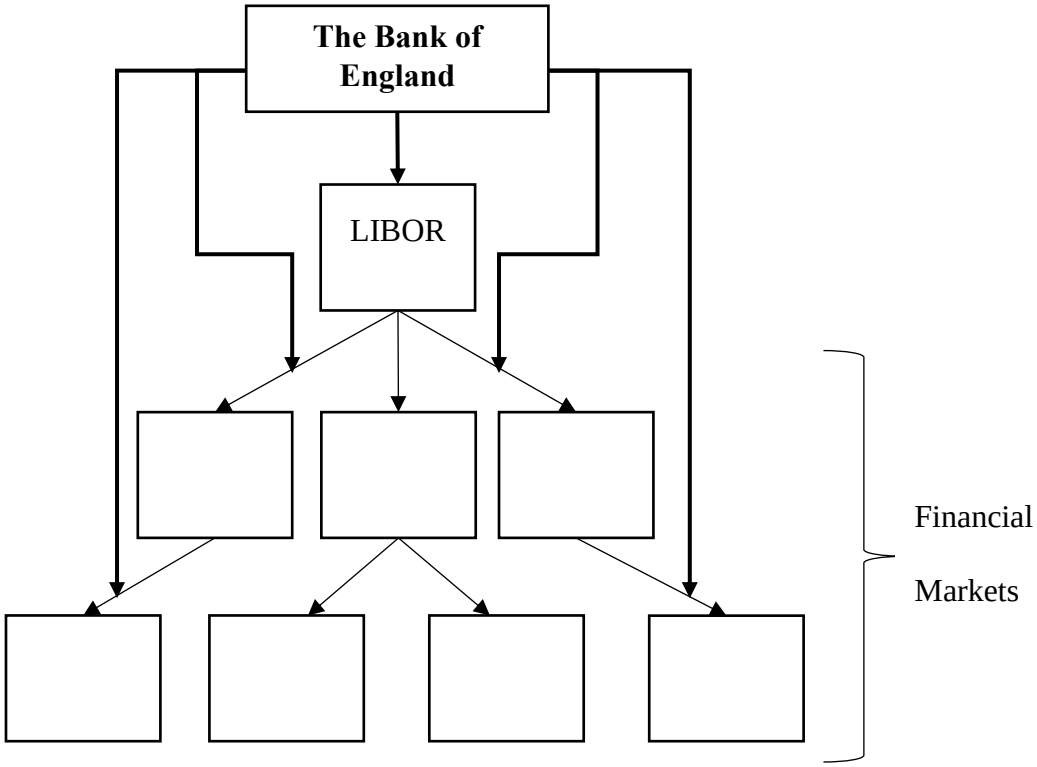



*Figure 18. Bank of England market strategy developed from October 2008*

Secondly, the development of discretionary facilities in both the ILTR and the CTRF exposes the Bank of England to the politicisation of its decisions. By stating that it would intervene in a period of market stress and mediate between different asset classes, the Bank simultaneously increases market stability due to the expectation effect[16] and opens itself up to challenge as the definitions of "exceptional market stress" and "appropriate distribution" of funds are open to question. Action or refusal to act thus have significant potential distributional impacts in times of increased stress (Gabor, 2014a). The Bank of England now risks being attacked either for acting too quickly or for not acting quickly enough.

Finally, the expansion of the range of collateral that the Bank is willing to accept exposes it to political questions regarding the exact boundaries between the different asset classes, and exposes the Bank of England directly to broader economic activity. By expanding the range of collateral accepted in its standard funding operations from a single relatively homogenous class of sovereign debt to include two further classes, the Bank of England actively delineates between a wide range of assets (Borio, 2014). Given the different fees, haircuts and sums advanced against each class, this has the potential to significantly impact the market value of these assets. As these assets are in turn different groupings and securitisations of credit extended to households, firms and governments, this has the potential to shape credit expansion, with the associated political implications (Gabor, 2014a). In turn, by accepting this broader range of assets, the Bank of England

[16] By creating the expectation that the Bank of England will step in to secure market liquidity, market actors are less likely hedge against liquidity in event of a shock, thus reducing the likelihood of a liquidity shortage.

also directly exposes its balance sheet to the performance of different sectors of the economy. Sweeping sectoral failures now pose direct risks to the Bank of England.

The development of a bounded market discipline strategy as a response to the crisis of money as credit thus has two broader implications. Firstly, it involved abandoning the pre-crisis strategy of placing at one remove the responsibility for financial stability by normalising liquidity insurance operations. In contrast, the shift to bounded market discipline required an enhanced regulatory and supervisory regime to offset the moral hazard involved. Indeed, it is not a coincidence that the expansion of collateral and counterparties came after the Bank of England had secured itself as the primary financial stability body (see chapter seven). Secondly, it represented part of a broader shift in Bank of England strategy towards active economic management by managing the funding costs of different asset classes with the cost of UK sovereign debt as the key benchmark asset. This deepening of the Bank of England as an economic manager and its exposure to the state's fiscal position was continued in the development of its 'exceptional' monetary policy of Quantitative Easing and the Funding for Lending Scheme, launched in response to the two further crises of money as the means of exchange and money as capital. The exposures ultimately led to the Bank assuming an increasingly close relationship with the British Treasury on the premise of fiscal responsibility.

## V.ii. Crisis of Money as Means of Exchange

The second existential crisis faced by the Bank of England was a crisis of money as a means of exchange. Faced with uncertain futures and debts borrowed on the premise of a more exuberant future than the one realised, firms, banks and households began to withdraw money from circulation en masse. Money was deprived 'of its function as

medium of circulation' and granted "the character of the "absolute commodity"' (de Brunhoff, 2015; see also Marx, 1974, p. 138). The process of circulation, M–C–M′, was fractured as money was sought as money. What was previously a 'slowdown in the economy', welcomed as necessary to dampen inflationary expectations (King, 2008e), was now 'the worst banking crisis since the outbreak of the First World War' (Monetary Policy Committee, 2008a), one which risked a deflationary spiral and increased debt encumbrance as the money supply contracted, increasing competition for the means of repaying debt.

Rising unemployment, bankruptcies and the liquidation of firms ensued (see Figure 21), with 3.5% of active UK firms entering liquidation in 2009 (The Insolvency Service, 2014). This forced further writedowns on banks' balance sheets[17] further restricting the willingness of banks to lend as the returns constraint began to bind, driving up the cost of credit.

The surviving firms found the expected returns on their product and the value of their stock to be less than expected and cut back on future investment, production and employment (Bank of England, 2009p, p. 6). Workers and firms thus found themselves with labour and product to sell but with nobody able or willing to buy it, as hoarding processes of debt repayment and savings took precedent over consumption. This continued the spiral of devaluation and hoarding of money.

[17] The implied market-to-market losses in the last quarter of 2008 exceeded the entire recapitalisation of that year (Bank of England, 2009o, p. 6).

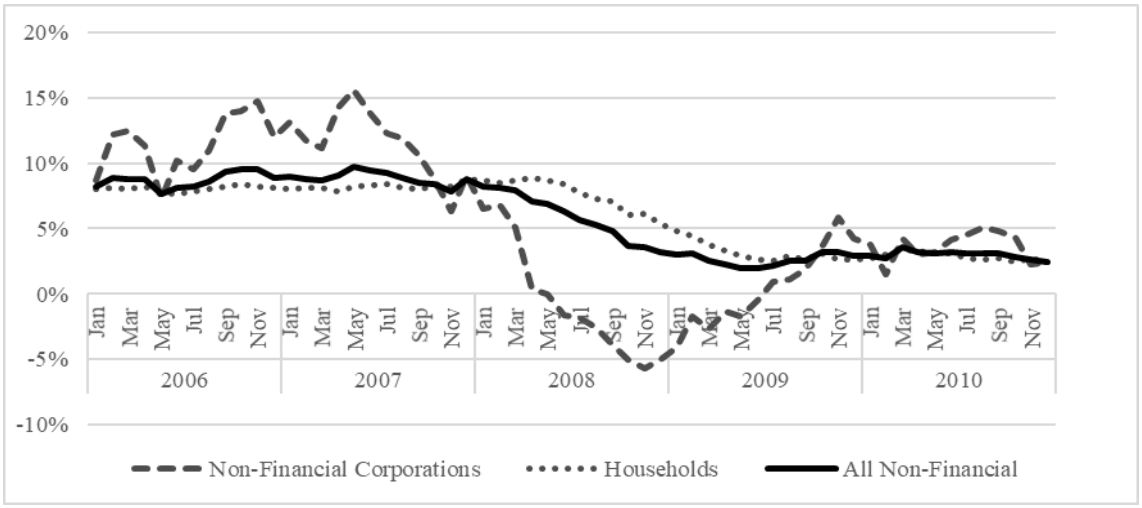



*Figure 22. Year-on-year M4 money growth to the non-financial sector 2005–2010 (Bank of England, 2018e)*

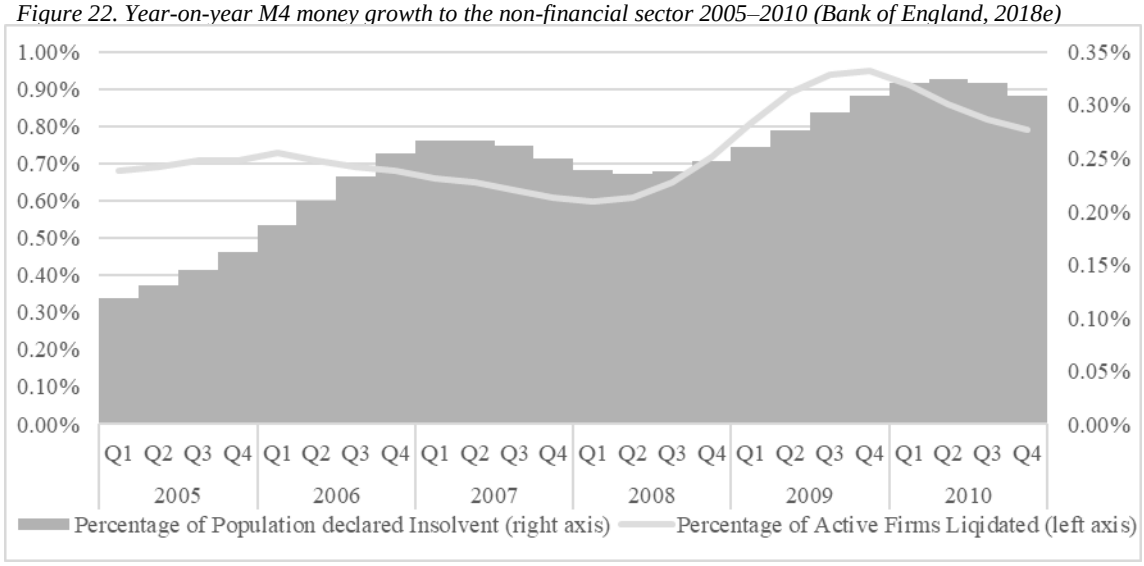



*Figure 21. Company liquidations and personal insolvencies (The Insolvency Service, 2014)*

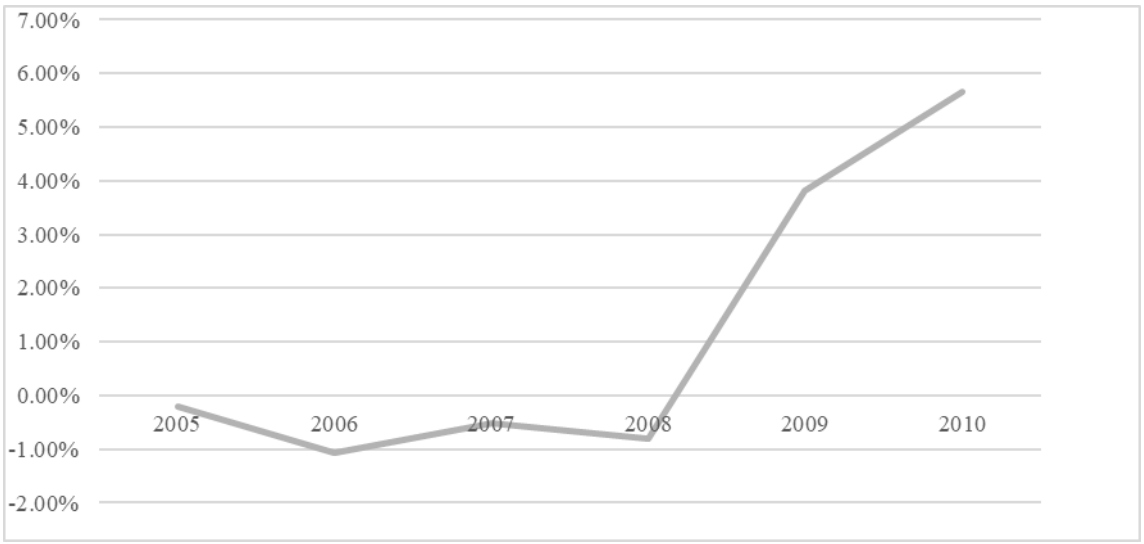



*Figure 20. UK Household savings as % of disposable income (indicator) (OECD, 2018b)*

The Bank of England's response to this breakdown in the circulation of money was to drastically reduce the cost of funding, drastically expand the supply of "high powered money" and bid up the value of financial assets, shielding their holders against further losses. In doing so, the Bank of England came to assume a direct role in financial markets by seeking to influence the price of both public and private debt, further deviating from the 'market discipline' paradigm and weakening the returns constraint which was now driving a downwards spiral. In doing so, the Bank of England not only continued its transition towards taking a more active role in economic management but also necessitated a closer working relationship with the British State. While the initial intervention was conducted alongside the fiscal expansion of the British State in 2008–09, the targeting of UK sovereign debt in the APF, and its importance at the peak of the credit structure, led the Bank of England subsequently to endorse deficit reduction and austerity politics to secure the eventual repayment of the debts of which it now secured the market value. This in turn set the foundations for the structural crisis of money as capital.

## A Coordinated Response

Throughout the initial period of financial instability, the Monetary Policy Committee was attempting to balance the downward pressures of credit contraction with rising inflation in the hope that the former would dampen the latter (Bank of England, 2008j, p. 10). With the failure of Lehman Brothers, the deflationary risks of a deep recession now outweighed the inflationary risks. Thus, as part of a nationally and internationally coordinated crisis response in late 2008, the MPC began a series of rate cuts, despite rising inflation (Monetary Policy Committee, 2008b).

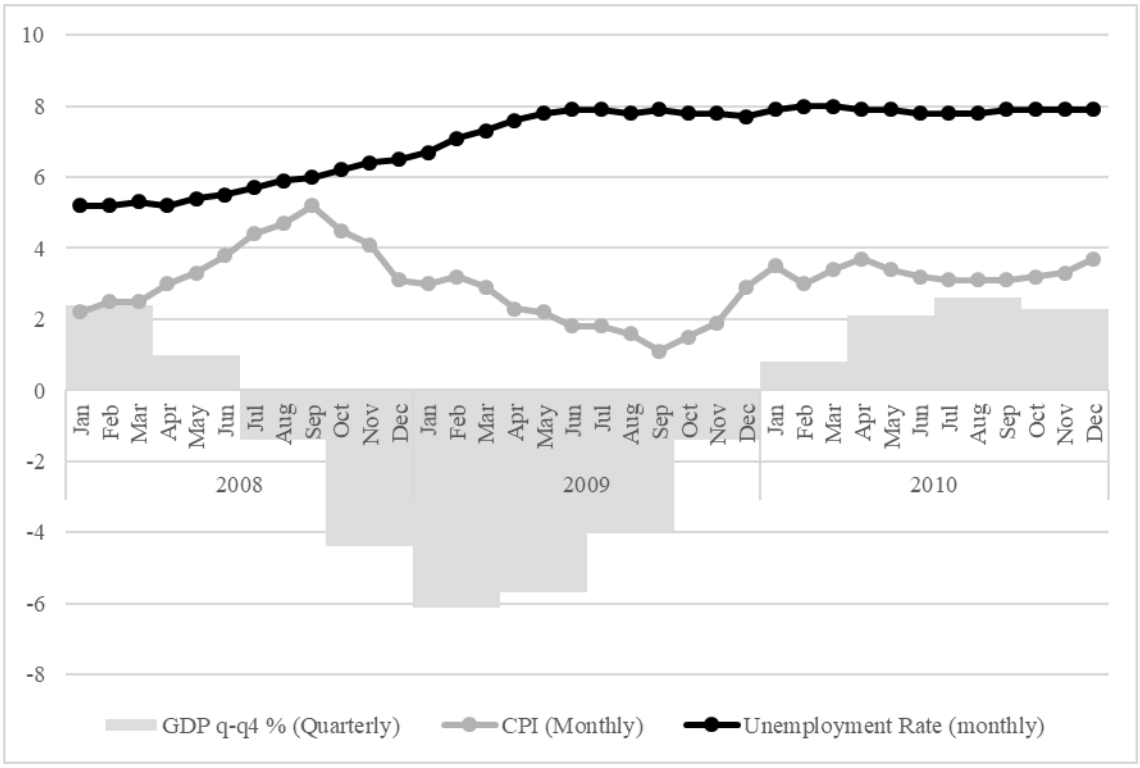



*Figure 23. GDP growth, CPI inflation and unemployment 2008–2010 (Office for National Statistics, 2016)*

A series of drastic cuts in the base rate ensued as part of a global commitment by central banks to reduce the cost of credit (Federal Reserve, 2008), driving the base rate from 5% in September 2008 to 0.5% in March 2009. This was a shift in strategy which had been long awaited by the British government and which worked in tandem with a fiscal expansion to drive expenditure: nationally through temporary tax cuts (HM Treasury, 2008e), brought forward capital expenditure (HM Treasury, 2008d) and a series of, largely ineffective, temporary subsidies and credit guarantees (National Audit Office, 2010); internationally through a commitment to global fiscal stimulus to cut short the crisis and prevent global deflation (G20, 2008, 2009; see also Brown, 2010, pp. 113–132).

The explicit target of the monetary component of this strategy was to reduce the cost of credit and thus restart monetary expansion not to stabilise the financial sector (Monetary Policy Committee, 2008b). Financial stability concerns were subordinated to the need to secure monetary growth and the targeted rate of inflation. Thus, while the

Markets Division of the Bank of England moved to secure money as credit, the MPC moved to secure money as the means of circulation. However, by March the MPC had reached the effective zero lower bound[18] — the limits of its single instrument strategy.

The risk of reaching the zero lower bound had been recognised in November 2008 and a team was put together to investigate alternative tools to drive credit growth in a low interest rate environment (Interview, Yates, 2016). Approximately six different policies were discussed[19]. However, the decision was made by the Bank of England Executive to engage in Quantitative Easing in December 2008, as it was the closest to "ordinary" monetary operations (Interview, Yates, 2016) — what the Governor termed 'conventional unconventional purchases' (Mervyn King, Treasury Select Committee, 2009a, Q10). The facility was subsequently designed in coordination with the Treasury which would indemnify the scheme (Interview, Darling, 2017). Thus, in late January, the Chancellor announced:

> a new £50bn fund [to] help increase the amount of funding available to companies — by purchasing corporate assets from the banks — enabling them to invest (Darling, 2009e).

Through an additional exchange of letters (Darling, 2009a, 2009d; King, 2009b, 2009c), this became the Asset Purchase Facility.

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[18] The point at which further reductions in the base rate would not result in monetary expansions.

[19] Namely — forward guidance; the direct purchase of private sector assets; foreign exchange intervention; reform of banking practices to allow negative interest rates; "helicopter money" and Quantitative Easing (Interview, Yates, 2016).

## The Asset Purchase Facility

The Asset Purchase Facility was comprised of two separate sets of operations. One focussed on securing markets for private debt and direct lending to UK corporations and a second sought to achieve monetary policy objectives through the purchase of UK sovereign debt — a policy known as Quantitative Easing. Both of these operations sought to stop the downward spiral in UK financial markets by securing asset values and to drive credit growth to the British economy through the direct purchases of financial assets.

The initial design of the facility was for it to function via four different mechanisms — Active Management, Circulation, Direct Purchase and Expectations Management (Benford et.al., 2009). Active Management meant that, as the market supply of assets was reduced, their price would rise and thus their yield would fall. So firms would need to invest in higher-risk, higher-yield assets, such as commercial debt or increased high-street lending. Alongside this, the purchase of assets from a broad range of counterparties (Bank of England, 2009m) meant that firms were left with funds to be reinvested in other assets, leaving another firm with funds to be reinvested etc., bidding up a range of assets beyond the initial purchase (Dale, 2009). This Circulation effect would then cause a second wave of Active Management as more asset markets rose (Bank of England, 2009p). Meanwhile, the private market schemes would be ready to purchase up to £50bn of corporate debt, directly injecting funds into non-financial firms. The cumulative effect would be to anchor expectations towards lower long-term interest rates.

The design, size and impact of the facility heralded a signifcant shift in Bank of England strategy. At the general level, the Bank of England was now seeking to directly impact the price of financial assets, further abandoning ‘market discipline’ as a strategy,

as the current market values of assets were secured alongside the SMF's liqidity insurance. Secondly, the Bank of England was now involved in supporting private debt markets and direct lending to the UK economy though its private market schemes, exposing the Bank of England to the economic performance of private firms.

The scale of Quantitative Easing also threatened the independence of the Bank of England (Dow, 2014). The targetting of UK sovereign debt meant that the Bank of England now needed to coordinate its interventions both operationally and strategically with the fiscal management of the British State. So the shift to monetary activism meant that the Bank of England and the British State were in alignment over the need for monetary activism. The operational design of Quantitative Easing and its focus on the sovereign debt markets necessitated closer cooperation but also provided new scope for conflict over fiscal strategy. Thus, while the changes to the SMF represented a shift in strategy towards a 'bounded market' for financial assets, the APF represented a larger shift, whereby the Bank of England became directly involved in setting asset values, driving economic activity and questions of sovereign debt — relinqishing its previously detached and deopliticised approach to monetary management.

**Private Market Schemes**

The first component of the APF was the three facilities purchasing the debt of 'companies (including their finance subsidiaries) that make a material contribution to economic activity in the United Kingdom' (Bank of England, 2009c, 2009d) and short-term securities directly based on the supply of UK credit (Bank of England, 2009k). These facilities — the Commercial Paper Facility, the Secured Commercial Paper Facility and the Corporate Bond Facility — formed the initial £50bn facility announced by the

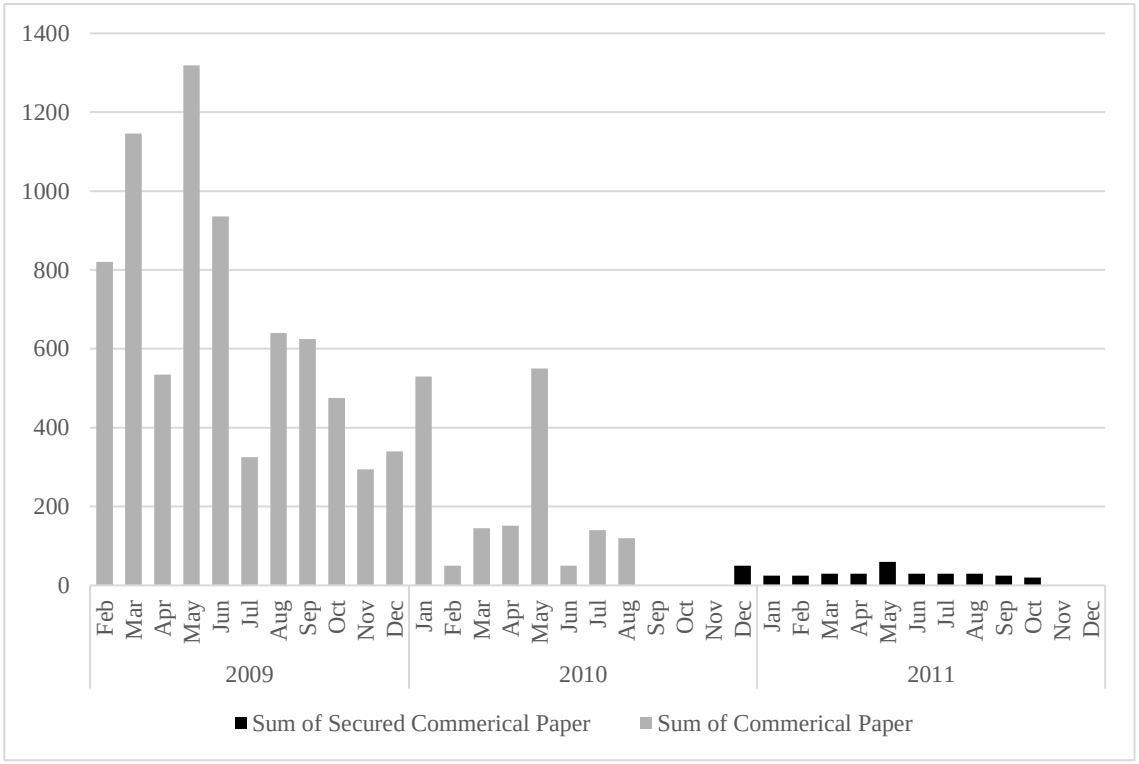



*Figure 24. Commercial Paper and Secured Commercial Paper purchases in £m (Bank of England, 2018e)*

Chancellor in January 2009. They then became co-opted into the Quantitative Easing operations in March as the "direct purchase" component of the strategy. They also represented the first shift by the Bank of England towards direct economic management by securing the markets and market value of private firms' debt.

The Commercial Paper and Secured Commercial paper (from July 2009) facilities operated along broadly similar lines. Both offered to buy short-term paper (up to 3 months to maturity) from both the primary and the secondary market (Bank of England, 2009d, 2009k). In both markets the Bank of England acted as a *price maker*, setting the price at which it would buy each asset class 'at spreads which were significantly below those in the market at the time, but which were significantly above those expected to prevail in normal conditions' (Fisher, 2010a). This occurred either directly in the primary market — allowing corporations to in effect borrow directly from the Bank of England at a set

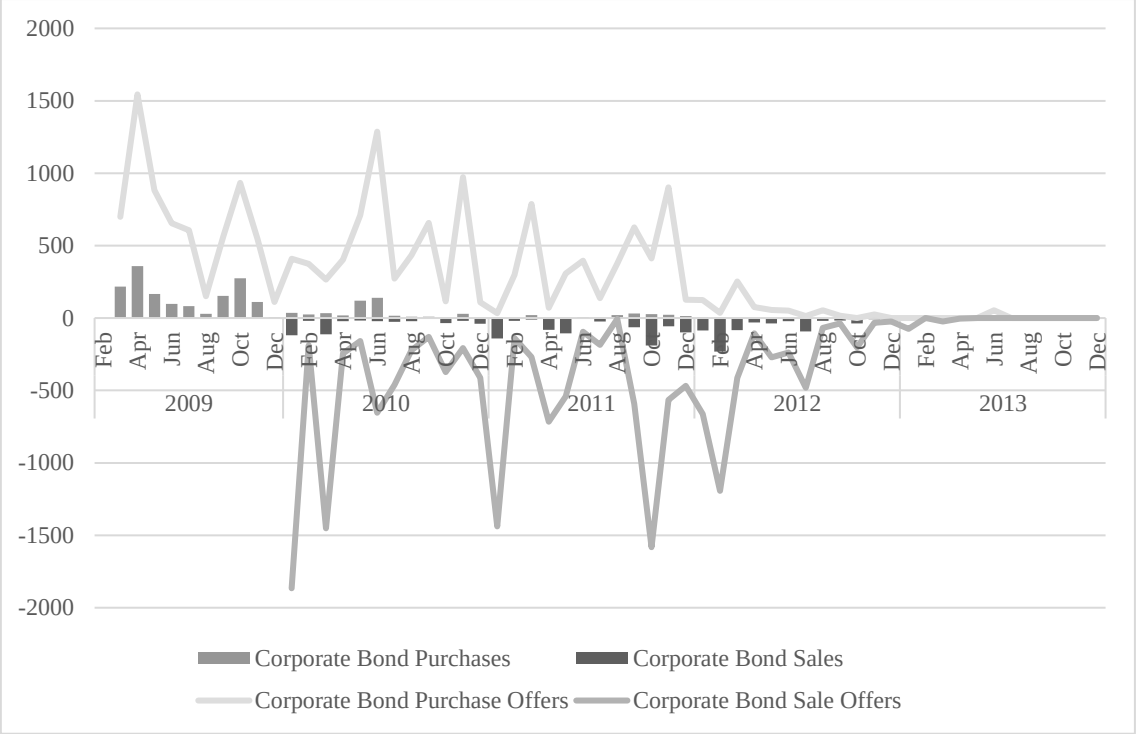



*Figure 25. Corporate Bond Scheme offers and purchases in £m (Bank of England, 2016b)*

price — or indirectly in the secondary market where it would buy at the lower of the primary market rate and the market rate. Thereby declaring the market open and offering liquidity (Interview, Senior Bank of England Official A, 2017). Thus the CP and SCP schemes secured short-term credit directly for corporations, and indirectly through the securitisation process for smaller firms and households.

In contrast, the Corporate Bond Facility was an active dealer of last resort facility whose focus was:

> to facilitate market-making by banks and dealers, to help to reduce liquidity premia on corporate bonds, and so remove obstacles to corporate access to capital markets. (Bank of England, 2009f)

Thus, it would only buy from 'firms that are market makers' (Bank of England, 2009c) and from a list of approved bonds (Bank of England, 2009g, 2009j). The Bank of England

also acted as a *price maker*, buying at a price determined by a reverse auction — subject to an undisclosed minimum spread over the risk free rate (Bank of England, 2009c). From January 2010, the Bank of England also stood ready to sell its portfolio through a similar process 'aimed at improving secondary market liquidity' (Bank of England, 2009i). Thus, the Bank of England acted as a dealer of last resort, standing ready to drain and inject bonds from the secondary bond markets by standing behind the market makers as a counterparty to guarantee the equitable trading and liquidity of corporate bonds. By guaranteeing the tradability of corporate bonds, the Bank of England effectively declared the secondary market open and increased the liquidity of the primary market, facilitating long-term funding for UK corporations (Interview, Senior Bank of England official A, 2017). This effectively subsidised their debt in the stressed conditions.

These schemes represented a significant shift in the Bank of England's approach as it now both directly provided short-term funding through the CPS and SCPS to firms and secured the debt of UK corporations in the SCBS, whereas the SMF secured the vertical convertibility of the credit structure in funding operations, guaranteeing the liquidity of asset markets but not their value. The private market aspect of the APF not only guaranteed the liquidity of a select set of markets but also placed the Bank as a counterparty in sales and securitisation processes, thereby driving credit expansion and stabilising asset values, relaxing the returns constraint on financial actors, the disciplining component of the revised SMF.

Thus it represented the continuation of a change in bank strategy, which 'was essentially a U-turn as the scale of the crisis unfolded, [and] the imperative to save the financial system became more acute' (Interview, Yates, 2016), and did not sit well with certain parts of the Bank of England, most notably the Governor:

> who entered that period [2007–09] with the sort of attitude that over my dead body would he buy private sector assets, expose the bank to reputational or financial risk, get involved in private credit. (Interview, Yates, 2016)

It is not surprising, then, that the schemes remained relatively minor, only ever amassing just over £2bn of the £50bn allocated to it (Bank of England, 2018e), before becoming reframed as market maker of last resort facilities rather than direct market interventions (Bank of England, 2010a; Fisher, 2010b). Instead, the Bank of England's focus was on the gilt purchases which dwarfed the private market operations. Whereas the private debt schemes sought to secure credit lines for the real economy to secure money as a means of exchange, the gilt purchase component sought to drive credit growth by driving up asset prices and generating a wealth effect. Thus, where the private schemes largely acted to open and secure markets for private debt, the gilt purchases sought to increase the value of private debt.

**Gilt Purchases — Quantitative Easing 1**

Operationally, the sovereign debt component of the APF initiated by the MPC differed from the private sector schemes in two respects. Firstly, the focus of the scheme was to drive up asset prices rather than secure credit access. Secondly, the Bank of England acted as a *price taker* in gilt markets, taking non-competitive offers and using a competitive bidding process to fill an allotted purchase size (Bank of England, 2009m). Thus, while the paper and bond schemes stood ready to provide funds at a given price, the gilt scheme absorbed a set quantity at a variable price.

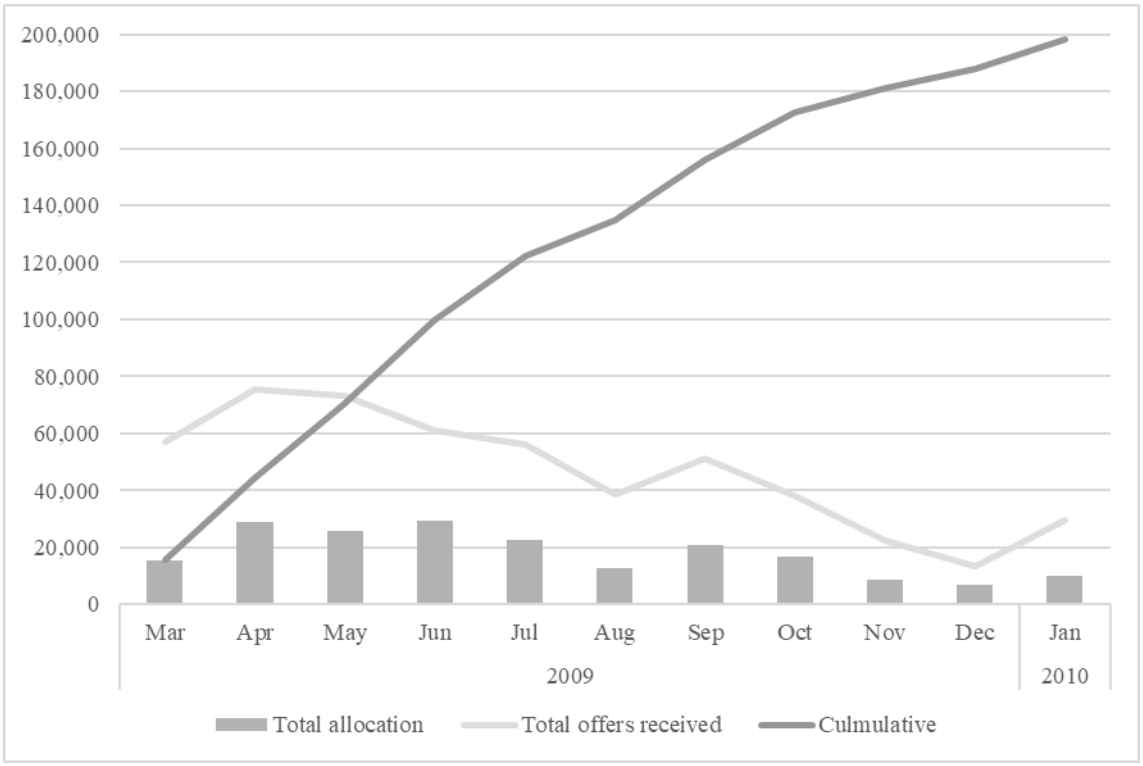



*Figure 26. QE1 gilt purchases under the APF 2009–2010 in £m (Bank of England, 2016a)*

The focus on driving up the price of gilts by draining the market was predicated on the injection of central bank reserves in their place. These would then circulate, driving the Circulation effect while the higher gilt prices drove the Active Management effect. This meant that the reserve averaging component of the SMF had to be abandoned, as the supply of reserves was now largely set exogenously by the APF (Bank of England, 2009m). This, combined with the explicit intent to secure asset prices, directly undermined the notion of market discipline as a regulatory factor. The Bank of England now stood ready to secure and drive up asset prices in order to stimulate credit growth, limiting the downwards, disciplinary, effect of markets, and had also removed the penalty for relatively overextending credit.

Market processes did still play a central role, however. By focussing on the quantity of assets to be bought rather than on a particular asset price, market sentiment around government debt continued to play an important role in price setting. Also, by

limiting the range of assets bought to long-term gilts, initially 5–25 year maturity (Bank of England, 2009m) then 3+ (Bank of England, 2009h), the Bank did not directly impact short-term reference rates but relied on market arbitrage to distribute the impact. In a similar manner, the paper and bond purchases were limited to a small range of markets (the Corporate Bond Scheme being open only to 60–120 different companies at a given time) (Bank of England, 2009b, 2014b). Thus, while the APF significantly weakened the returns constraint by securing and bidding up the value of select assets, Active Management and Circulation effects also relied on market dynamics to redistribute the surplus reserves, allowing for certain markets to continue to discipline.

Overall, this was relatively successful in reopening debt markets and preventing a downwards cycle of credit contraction by securing asset values by mid-2010 (Bank of England, 2010d; Bridges & Thomas, 2012) and raising economic expectations (Boneva, Cloyne, Weale, & Wieladek, 2016), although it proved less successful at driving broad credit growth as the economy contracted and bank lending remained restricted (Lyonnet & Werner, 2012). In short, it stemmed the tide and delayed the problem of deleveraging for the financial sector and certain aspects of the British economy by shielding current asset values and balance sheets from market losses by driving up demand. It failed, however, to drive a resurgence in bank lending and the associated fresh investment and consumption.

The more immediate implication of Quantitative Easing, however, was the need for operational and strategic coordination between the Bank of England and the British State. QE necessitated both a closer operational cooperation through the exchange of letters, the scheme's indemnity and the management of government debt markets, and a strategic interconnection as the government's fiscal stance came to bear directly on the

efficacy of the Bank of England's policies and threatened its operational independence (Borio, 2014), reopening points of conflict between the Bank of England and the British government.

*Operational Cooperation*

The size of the APF meant that it required a government indemnity or risked bankrupting the Bank of England. So, while theoretically the Bank of England did not need permission to engage in this operation, outright purchases being added to the SMF in October 2008 (Bank of England, 2008h), the necessary size of the scheme posed serious risks. Specifically that the potential size of the losses on the scheme could potentially wipe out the Bank of England's capital, leading it to technical default and undermining both the credibility of the scheme and the Bank of England (Interview, Miles, 2017).

In order to prevent this risk the Bank of England negotiated that the APF would be a special purpose vehicle fully indemnified by the Treasury, thereby allowing the Bank of England to conduct its policy freely without fear of facing its own crisis of undercapitalisation[20]. The result was that the Treasury gained the power to limit the Bank of England's use of this facility as 'in a sense it wasn't in any material sense owned by the Bank, but was formally' (Interview, Yates, 2016). Thus, the APF operated through a regular exchange of letters between the Governor, on behalf of the MPC, and the Chancellor, requesting and authorising expansions of the scheme as the MPC

[20] As it turned out, the APF ran at a significant profit of over £42bn which the Treasury then chose to extract as revenue in exchange for its indemnity (Office for Budget Responsibility, 2018) and one member of the MPC to joke at their leaving do that if they 'had been a hedge fund manager their leaving gift would have been a share of the profits, say £1bn' (Interview, Miles, 2017).

successively came up against the limits provisionally set by the Treasury (Darling, 2009a, 2009b, 2009c; King, 2009b, 2009d, 2009e).

At the same time, the purchase of large amounts, approximately 20%[21], of sovereign debt bought by the Bank of England's Market Division required close coordination with the Debt Management Office, largely in order to prevent undue market disruption and accusations of monetising the government's debt (Interview, Senior Bank of England Official A, 2017). This involved letting the Debt Management Office [DMO] repo back out gilts bought by the APF to ease market liquidity (Bank of England, 2009h)[22], and the bank coordinating its purchases with the DMO auctions so that each issue would have to be held for a month before being sold on to the Bank (Bank of England, 2009m).

*Strategic Conflict*

Strategically, however, the APF, especially considered alongside the SMF reforms, left the Bank of England significantly exposed to the government's fiscal strategy and debt management. The main risk of Quantitative Easing was the risk of moral hazard on the part of the government, which could use the improved borrowing conditions to ease its fiscal discipline (Borio & Disyatat, 2009; Gabor, 2014a). This in turn would then effectively reverse the impact of the APF as the net supply of gilts remained stable or increased while the MPC targeted only gross purchases (Interview, Yates, 2016).

[21] Public sector net debt was £1,012bn in the first Quarter of 2010 when the APF reached £200bn (Office for National Statistics, 2016).

[22] Thereby benefitting the government twice, as it would gain from the reduced borrowing costs and then again from the interest earned on repoing out the gilts.

Thus, the Bank of England sought an assurance from the Treasury that it would take into consideration the needs of monetary policy in its debt management strategy and that it would not seek to monetise its debt via the APF (King, 2009b). The Treasury's response, however, was somewhat contradictory, stating that it would continue to seek to secure stable and cheap funding for the government's debt — i.e. directly respond to the effect of the APF on gilt markets — but it would also not alter its strategy due to the asset purchases (Darling, 2009a). In practice, however, 'there was extra long-term issuing [which] would have acted to undo QE' (Interview, Yates, 2016).

Thus, as Bernanke and Reinhart (2004) suggested, Quantitative Easing had a quasi-fiscal impact by reducing the cost of the government's debt, which in turn left the policy open to abuse, as states faced reduced pressure to restructure (Borio, 2014). Thus, the operational cooperation was superseded by the structural need for the Bank of England to secure an appropriate fiscal strategy from the British State: namely, a commitment to deficit reduction in the face of growing speculation over the sustainability of European sovereign debt.

The 2010 Election and the Sovereign Debt Crisis

This relaxation of the funding constraint on the UK government was potentially problematic in a context of falling tax revenue and soaring government expenditure, as Quantitative Easing was premised on lowering gilt yields. This risk of government policy undermining Bank of England policy led the Bank of England to engage in a strategy of "externalisation" through public and private briefings on the sustainability of the government's debt position. Thus, while the Bank of England welcomed the large fiscal response to the crisis in late 2008 and early 2009, as the government's debts position

continued to worsen and the Bank of England's position became more dependent on it through 2009–2010, this narrative began to change.

Although the fiscal and monetary expansion of late 2008–2009 ultimately succeeded in mitigating the recession, it also meant UK sovereign debt doubled as a proportion of GDP from January 2008 to January 2010, and net public sector borrowing in the first quarter of 2010 reached 10% of GDP (Office for National Statistics, 2016). This meant that, throughout mid-to-late 2009, the debate shifted from the solvency of banks and the UK economy to the solvency of the state (Gamble, 2012; Hay, 2010). In May 2009, the government received a downgrade warning on its credit rating (Reuters, 2009) and, as the Greek crisis began to break in late 2009, the reality of a European Sovereign Debt Crisis and fear of contagion further weakened the position of UK sovereign debt. While this did not raise any significant immediate risks to the government's ability to raise funds, due in part to the long average maturity of its debt (Interview, Senior Bank of England Official A, 2017), it did place at risk the future credibility of its debt strategy and thus its current value.

Meanwhile, the direction of the government's fiscal strategy was unclear. The governing Labour Party became increasingly divided about the appropriate path to take. Relations between the Treasury and the Prime Minister's Office had worsened significantly over the course of the crisis (Darling, 2011, pp. 73–76, 216–219, 224–232, 266–270). As a result, divergent policy preferences were developing. The Prime Minister Gordon Brown advocated a narrative of 'investment versus cuts', where the government would continue to expand expenditure in line with the G20 announcements (Darling, 2011, pp. 217–218). Meanwhile, the Chancellor sought to develop a policy of moderate budget cuts to foster growth but also secure the credibility of the government's debt by

halving the deficit over four years (Darling, 2011, pp. 228–229; see also Dyson, 2016) but ‘not put the recovery at risk by reckless cuts to public spending this year’ (Labour Party, 2010, pp. 3–4).

Furthermore, an election was due in May 2010 and the opposition Conservative Party sought to position itself as the party of ‘fiscal responsibility’ (Osborne, 2009a), emphasising the declining condition of the state finances and advocating an approach of ‘monetary activism, fiscal responsibility, and supply side reform’ to restore both growth and the state’s finances (Osborne, 2009b). The election manifesto of the Conservatives thus declared that they would ‘safeguard Britain’s credit rating with a credible plan to eliminate the bulk of the structural deficit over a Parliament’ (Conservative Party, 2010; see also Gamble, 2012).

In this context of competing agendas, both within the government and in an upcoming election, and deteriorating credibility of sovereign debt, the Bank chose to begin a strategy of ‘externalisation’ (Burnham, 2017) to push for austerity. While the Bank of England had a record of commenting on the government’s fiscal position, this had previously taken the form of relatively neutral comments regarding inflation and monetary policy implications (for example, Bank of England, 2007d, p. 20), or theoretical comments on the need for credible fiscal commitments for monetary policy regimes to work (for example, Bean, 2007; King, 2006a, 2006b; Tucker, 2007). The convention was that operational independence meant that ‘that ministers wouldn’t comment on interest rates and they wouldn’t comment on financial policy’ (Interview, Darling, 2017).

However, the limiting of governorships to two terms in the 2009 Banking Act and Mervyn King’s reappointment in April 2008 left the Governor significant leeway to

become more proactive. King began 2009 by praising the government for responding to the collapse of Lehmann Brothers 'decisively and boldly with large fiscal injections' (King, 2009f), but as 2009 progressed and the risk of sovereign moral hazard increased, the narrative became increasingly critical.

In particular, the Governor used the regular Treasury Select Committee hearings to pass comment on the government's fiscal decisions. He initially warned against further discretionary fiscal expansions in March (King, Treasury Select Committee, 2009g, Q97), before pressing for more drastic budget cuts in June:

> There will certainly need to be a plan for the lifetime of the next Parliament … to show how those deficits will be brought down if the economy recovers to reach levels of deficits *below those that were shown in the* [recent] *Budget figures*.
>
> (King, Treasury Select Committee, 2009d, Q5, emphasis added)

This stance was reiterated in November as the election campaigns developed (King, Treasury Select Committee, 2009e, Q14), and in certain keynote speeches he argued for significant state restructuring (King, 2009a, 2009g): in short, that there was a 'need — now widely accepted — to eliminate the large structural fiscal deficit' (King, 2009f).

This attracted significant political backlash as the Governor was seen by some as politicising the Bank of England and overstepping his brief (Blanchflower, 2010; *The Guardian*, 2010a), especially as his comments on fiscal policy and also financial regulation were seen as implicit support for the Conservative Party's policy agenda (Irwin, 2013, pp. 284–288). Meanwhile the Governor, for his part, felt frustrated at the lack of scope to comment on fiscal policy compared to other major central banks (Interview, Senior Bank of England Official A, 2017).

At the same time, in anticipation of the 2010 general election, the Governor began holding private briefings with key members of the Conservative Party (Conaghan, 2012, pp. 240–241). The Governor continued to express his concerns over the need for drastic reductions in government spending, and the Conservatives 'listened carefully to what the Governor was telling them … and drew up their plans accordingly' (Wilson, 2010, p. 107). George Osborne, in particular, was keen to develop a close working relationship with the Bank of England (Interview, Senior Treasury Official, 2017).

The Governor, however, was readily privately briefing that he did not feel that *any* elected government would be able to achieve the restructuring necessary: the incumbent because it was not willing to tackle the political challenges of doing so (Irwin, 2013, pp. 84–85); the opposition because they were perhaps too inexperienced to overcome the political cost that would leave whoever won the election 'out of power for a whole generation because of how tough the fiscal austerity will have to be' (*The Gaurdian*, 2010b). So he was disheartened by the opposition's lack of clear planning on how they would achieve the necessary fiscal reform (Conaghan, 2012, pp. 242–244).

Thus, when the 2010 election returned a hung parliament, the Governor stood ready to brief the more moderate Liberal Democrats about the needs for strong government and spending cuts (Laws, 2010, pp. 95–96; Wilson, 2010, pp. 107–109). Although this was not needed, as the negotiation delegates from the Liberal Democrats had already embraced this policy stance (Laws, 2010, pp. 95, 110; Wilson, 2010, p. 109), the Governor's briefings and warnings, expressed at one remove through senior Treasury officials, played an important role in swaying the more left-leaning Liberal Democrat Shadow Chancellor Vince Cable (Cable, 2015, pp. 8, 181; Darling, 2011, p. 304).

Then, a matter of days after the coalition government had been secured around a sharp austerity programme, the Bank issued an inflation report which sought to support and solidify this agenda, stating:

> A more detailed and demanding path of fiscal consolidation than set out in the [previous government's] March 2010 Budget may therefore be needed in order to avoid unnecessary increases in the cost of issuing public debt. (Bank of England, 2010d, p. 45)

This effectively endorsed the hard line of the Conservative Party against their more moderate Liberal Democrat partners. This move invoked the chagrin of some MPC members who wished to avoid politicising the committee (Posen, Treasury Select Committee, 2010a, Q5–Q10). Especially when the Governor announced that the Committee supported the statement unanimously, which was not the case (Interview, MPC Member A, 2017).

The argument here is not that these interventions from the Bank of England, and the Governor in particular, were causally significant in determining the outcome of the 2010 election or the coalition settlement (c.f. Irwin, 2013). That would be far beyond the scope of this study. Rather, the shift in strategy in order to protect money as credit and then money as means of circulation involved a reconstitution of the Bank of England's relationship with broader state structures. The exposure to the state's fiscal position and the broader concerns about the stability of the credit structure led the Bank of England to significantly re-orientate itself at both the operational and the strategic level.

## Abandoning 'Market Discipline'

While the crisis of money as credit necessitated a restructuring of how the Bank of England engaged with the credit structure, the crisis of money as means of circulation necessitated a complete reorientation of the Bank of England's relationship both within the broader economy and within broader state structures. By lowering the base rate to the effective lower bound and engaging in QE, the Bank of England sought to drive down the cost of credit and drive up the value of financial assets. This further weakened the market discipline component of its market management strategy. Considered alongside the SMF reforms, the APF saw the Bank of England transition from a detached lender of last resort, setting the market for a single short-term asset — overnight reserves — to a deeply embedded discretionary market manager, shaping not only the vertical convertibility of credit but also driving its underlying value, and thus the value of the financial sector's balance sheet.

At the same time, the Bank of England became directly involved as an economic manager, transitioning from setting, at several removes, the underlying cost of credit — the base rate — to directly lending to corporations and intervening in markets for private debt. This more embedded approach was then made explicit as part of the Governor's attempt to secure sharp fiscal consolidation, when he argued that the state should aim at the medium to long-term stability of its finances and leave short-term fluctuations in demand to the Bank of England's monetary policy operations (King, Treasury Select Committee, 2009g, Q97; see also King, 2010b; Sentence, 2009) — a view supported by some in the Treasury (Interview, Macpherson, 2017). The Bank of England was now

casting itself as an active economic manager to allow the state to retract and secure the future value of its increasingly important debt.

This process of reconstituting the Bank of England's role in the British political economy was completed by its active engagement with both the operational and the strategic elements of the state's fiscal strategy. Where the 1997 reforms had removed these from the Bank of England, the Bank of England now sought to develop operational cooperation and effective externalisation strategies to regain influence, thereby deepening and broadening the Bank of England's engagement with state structures at both operational and strategic levels.

The result of the abandonment of the Bank of England's market discipline strategy was thus a more active role and exposure to broader economic and state processes. At the same time, the consequence of the Bank of England's operations was that asset values remained stable and easily convertible. All that was left was for the underlying debt to be realised. Thus, as the UK economy entered a period of protracted stagnation, the Bank of England faced a new structural crisis of money as capital. While the Bank had flattened the trade-off curve between the present and the future, this only served to "buy time" (see Streeck, 2014, pp. 164–172) for the British economy to restructure and return to profitable accumulation — and thus for the repayment of its debts. The Bank of England now had to take an active role in this process as an economic manager and policy partner to the Treasury.

## V.iii. Crisis of Money as Capital

Through reforms to the SMF and the APF, the Bank of England had stepped in to secure the liquidity and value of financial assets. But these assets must still be realised as debts

are repaid. Firms and households had borrowed against expectations of exuberant futures and, while circulation had resumed as growth returned, there remained the problem of reconciling past promises with current circumstances.

The easiest way to resolve this problem of debt encumbrance or 'debt overhang' (Turner, 2016, pp. 74–75) is to inflate the debt away though negative real interest rates (Reinhart & Rogoff, 2009, p. 127). This would theoretically reduce the real cost of debt repayment and thus the relative burden on debtors. However, this only applies if the inflation is driven by rising nominal wages and profits, as the individual faces the problem of debt repayment as one of cash-flow not relative values. Thus, as Turner notes, this would require the further extension of credit to create the funds to drive inflation (Turner, 2016, p. 124), simply redistributing the debt spatially and temporally.

In this sense, then, the irony of the household narrative employed by conservative politicians to justify austerity is not that the state is qualitatively different from the household. It is that the state faces the same problem as the household. Debts can only be paid out of income and income in capitalism requires the profitable deployment of resources, whether that is through possessing profitable labour or deploying profitable capital. Thus, the problem faced by the state, the capitalist and the labourer in 2010 was the need for rising revenues to allow the easy repayment of debt. This was compounded by the need for banks to recapitalise as debts were repaid, until which they remained reluctant to extend credit without adequate security. The problem post-2009, however, was that profitable enterprises were scarce. The British economy, like that of much of the Western world, was entering a period of deflationary stagnation (Gamble, 2014).

In short, what was needed was broad money growth to drive up wages and profits, facilitate repayment of debts and thus restore banks' balance sheets. This would either have to come from a surge in state expenditure in the hope of future revenues as demand growth stimulated business and tax returns, or from increased lending against private projects and their profitability. The former was rejected in order to preserve the credit structure as a Sovereign Debt Crisis wracked Europe. The latter would only happen if there were sufficiently profitable investments to be lent against. That is, any new money created would have to be able to operate successfully as capital.

This placed the Bank of England in an increasingly difficult position. It had taken extraordinary steps to secure the credit structure, which left it without much policy space to engage in further operations. Thus it needed a return to growth, broadly defined, to allow it to unwind its asset purchases and raise interest rates. Rising wages and profits were needed to pay the debts that formed as the foundation for the assets that comprised the credit structure.

Secondly, it was committed to an inflation target of 2%. While this did provide space for negative real interest rates as the base rate sat at 0.5%, it also meant that a certain level of monetary discipline would apply to firms and households. An inflationary spiral would be met with an interest rate rise, reducing the deleveraging benefits of inflation as credit costs rose. Thus, increased revenue would have to come from improvements in real economic performance, leading to real rather than nominal wage and profit increases.

Finally, the Bank of England was now committed to a role as an active economic manager in exchange for securing the austerity programme of the coalition government. Thus the Bank of England faced a policy conundrum — it needed to reverse its

exceptional policies to buy policy space and it needed to extend its policies to facilitate growth as fiscal expenditure contracted. The result was a series of compromises between the Treasury and the Bank of England over the management of credit practices. This led to the Bank of England providing a decade of subsidy to commercial credit through the Funding for Lending Scheme and an attempt to guide the economy through Forward Guidance. The developments completed the abandonment of market discipline as a governing strategy, as the Bank of England actively subsidised and sought to shape credit practices in an attempt to restore competitiveness. The developments also came to reveal the limits of the new strategy of subsidised credit.

This section reviews the development of these strategies both as part of a broader strategy of restructuring of class relations in the UK and as part of a changing political economy of monetary policy between the Bank of England and the British State. First, it summarises the overarching strategy of the British State and the role of the Bank of England as an economic manager within it. Secondly, it covers how the strategy of medium-term monetary discipline placed the onus of adjustment on households, as short-term price shocks could be passed on to consumers as long as they did not result in a rise in wages, while Quantitative Easing stood ready to shield asset holders from any further shocks. Finally, it then provides an account of the tension over to what extent the Bank of England should engage in active management of credit practices as a part of its role as an economic manager. There was a resulting renegotiation of traditional roles, as the British State sought to actively shape lending practices in favour of capital, while placing downwards pressure on wages. This task was eventually taken on by the Bank of England in the FLS and then through ‘Forward Guidance’. It is concluded that these developments were both the logical continuation of the compromise of fiscal austerity and reveal the

limits of this new strategy, as lack of growth and low productivity continue to plague the British economy.

## ‘Expansionary Fiscal Contraction’

Mid-2010 saw the Bank of England in a significantly more secure position than in 2007–09. The economy had stabilised and the credit structure was largely secured via the APF and SMF reforms. At the same time, the return of a coalition government in May 2010 saw George Osborne appointed as a Chancellor, who — in contrast to the increasingly strained relationship between the previous Chancellor and the outgoing Premier — actively sought to form a positive relationship with the Governor and had been elected on a mandate of sweeping fiscal cuts.

Thus the coalition government developed a strategy of ‘expansionary fiscal consolidation’ (Dellepiane-Avellaneda, 2015), largely in keeping with the prevailing neoliberal focus on the marketization of state and society (Gamble, 2009b, 2014). The core of this strategy was a return to profitability through the suppression of labour (Radice, 2014). Reductions in state welfare provision and regulation alongside low interest rates would reduce business costs and thus allow for an ‘enterprise-led recovery’ to take hold (Osborne, 2010b). Meanwhile, the previous year’s concern over the need for a credible fiscal strategy had also seen the Governor of the Bank of England explicitly argue that ‘[m]onetary policy should bear the brunt of dealing with the ups and downs of the economy’ (King, Treasury Select Committee, 2009g, Q97).

Thus, the Bank of England’s monetary policy played a critical role in this strategy as the source of effective demand. Having secured a more cooperative government post-2010, which in contrast to the increasingly strained relationship with the outgoing Premier,

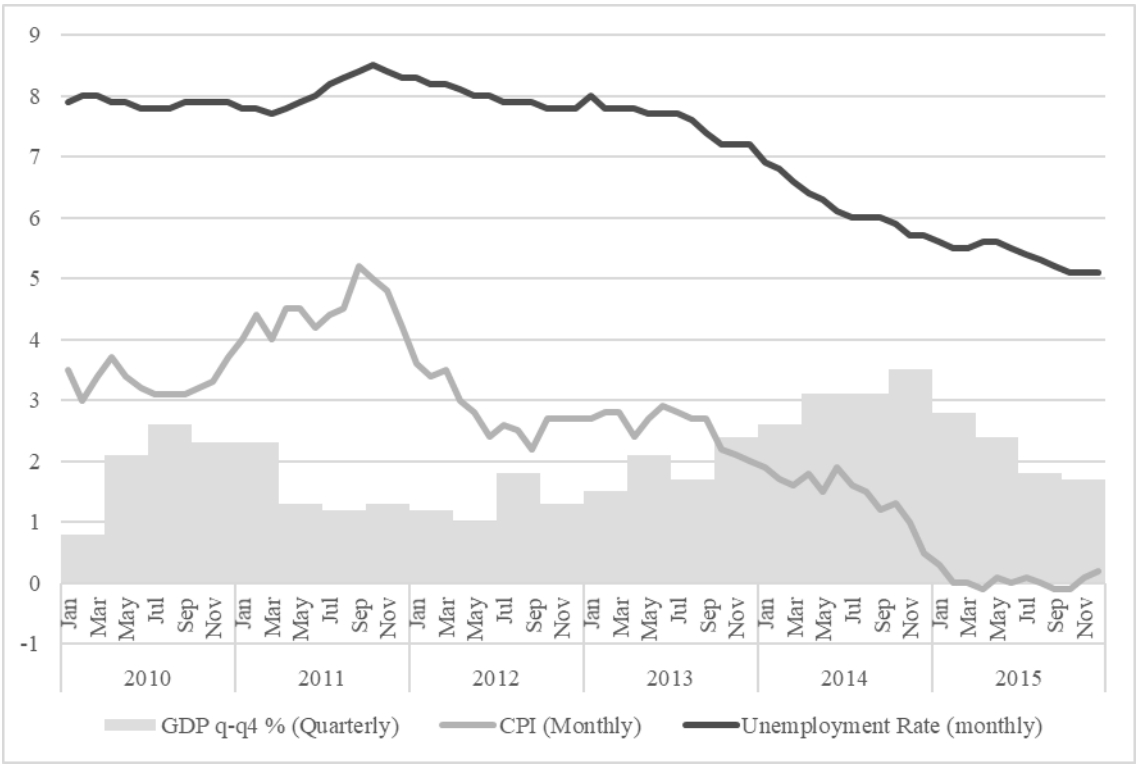



*Figure 27. UK yearly GDP growth, CPI and unemployment rate (Office for National Statistics, 2016)*

actively sought to form a positive relationship. Indeed 'Osborne and the Governor were pretty aligned on the force of fiscal policy' (Interview, Macpherson, 2017) and a policy culture formed such that, 'if the Bank had really pushed for [a particular tool] it would have gotten it' (Interview, Senior Treasury Offical, 2017). Furthermore, the Treasury's commitment to a 'credible plan to restore the public finances to a sustainable path' was premised on the fact that it would drive down interest rates (Osborne, 2010a); that the reduction in nominal demand would lead to continued and further monetary expansion triggered by the Monetary Policy Committee's commitment to 2% inflation (Osborne, 2009b). Meanwhile, the increased credibility of the government's debt would secure low long-term interest rates for both the state and British business (*ibid.*). This strategy directly mirrored the monetary policy of the Bank of England, which sought to stimulate demand through low short-term interest rates and the high value of UK sovereign debt via the APF, but left the burden of driving demand on the Bank of England.

Thus, while the Bank of England had been able to secure a state strategy of securing asset values through debt repayment and low interest rates, this came at the political price of increased monetary activism. This was problematic, however, as inflation rose to over 5%, unemployment remained obstinately at 8% (Figure 27) and growth fell, leading to a double-dip (*Financial Times*, 2012a) or even triple-dip recession (*Financial Times*, 2013). Meanwhile, the Governor, although having promised monetary expansion, was reluctant to move beyond the current policies of low interest rates and Quantitative Easing (Interview, Macpherson, 2017). The Bank of England's response was to "look through" the immediate inflation, to the medium-term horizon of two to three years (Interview, Bean, 2017). This strategy was premised on the underlying fundamentals, most importantly the "slack" in the labour market remaining deflationary, allowing businesses to pass on increased costs without driving up inflationary expectations. Meanwhile, Quantitative Easing remained available to shield asset prices against the impacts of the Eurozone crisis as it peaked throughout 2011 and 2012.

However, the Eurozone crisis worsened and attempts by the Treasury to drive lending to British enterprises had failed and funding concerns returned, risking a destabilising spiral of credit contraction (Financial Policy Committee, 2012d, p. 4). The developments led the Bank of England to recommend that the Treasury step up its contingency plans for an eventual bank failure (Financial Policy Committee, 2011c, p. 5). Thus, the Bank of England eventually agreed to provide an explicit funding subsidy to the British banking sector — the Funding for Lending Scheme. This move represented the end of the market discipline strategy towards a strategy of 'central bank led capitalism' (Bowman et al., 2013).

## Medium-Term Monetary Discipline

The strategy of the Bank of England in response to the crisis was largely in keeping with, and to a certain extent a logical extension of, its pre-crisis mandate of inflation targeting. The transition to inflation targeting in 1992 was an attempt to secure wage discipline and the international credibility of sterling in the wake of the exit from the Exchange Rate Mechanism (Bonefeld & Burnham, 1998). As Watson (2003) points out, this was constructed in such a way as to exempt capital and house price inflation: aptly summarised as '"retail inflation bad, house price inflation good"'(Hay, 2009, p. 474). The strategy was replicated by the attempts to secure the credit structure, leading to a slight reformulation as '"asset price inflation good, wage inflation bad'" (Green & Lavery, 2015, p. 905).

From 2010 to mid-2012, the UK experienced a long period of elevated inflation, peaking at over 5% in October 2011 (Figure 27). This was the result of a series of price shocks in the form of two rises in VAT in 2010[23] and 2011, rising energy costs and a fall in the exchange rate (Bank of England, 2011a, p. 14; 2012b, p. 14). In short, the British economy experienced a series of one-off cost increases. The Monetary Policy Committee, however, chose to do nothing and then, as inflation began to fall in 2012, it introduced another wave of Quantitative Easing. This permissive stance towards inflation was part of a broader strategy of medium-term monetary discipline.

The purpose of inflation targeting was never to achieve short-term price stability. This was too easily impacted by exogenous factors, as in 2007 and 2010–2012. Instead,

[23] The first as the result of a temporary reduction in VAT in 2009 as a part of the coordinated fiscal stimulus.

its aim was to shape expectations and thus target inflationary *dynamics*: namely, attempts to secure wage increases (Begg, 2009). In the words of Gordon Brown (2001), 'Unacceptably high wage rises will not therefore lead to higher inflation but higher interest rates' (pp. 134–5). This focus on the medium term allowed business to absorb the additional costs by passing them on to the consumer. The MPC was permissive to short-term price disruption on the condition that higher prices did not in turn lead to higher wages (Interview, Bean, 2017; Interview, MPC Member B, 2017)[24].

In 2010–12, this was possible because of the level of "spare capacity" in the UK economy (Dale, 2010; Miles, 2012): most importantly the level of "slack" in the labour market (Fisher, 2011) as unemployment reached 8%[25]. This meant that labour was in a weak position relative to capital, as welfare cuts and high unemployment saw competition for limited jobs, placing downwards pressure on wages and limiting the ability of workers to secure wage rises. At the same time, the slack in the economy meant that attempts to turn price rises into increased profit could be easily met by increased supply as idle resources became deployed. Thus price increases would not lead to spiralling costs.

Asserting monetary discipline in the medium term thus allowed the Bank of England to preserve the profitability of UK capital by allowing it to pass on external cost increases, on the condition that neither labour nor capital sought to use the situation to secure relative gains, which would risk undermining the credibility of sterling. This strategy of shielding capital from the costs of crisis was continued when inflation began

[24] Indeed, the risk of wages rising did lead to three members of the committee voting for a rate rise thought 2011 as wages partially rose to meet inflation.

[25] Although there were dissenters to this view, who argued that the level of spare capacity was being overestimated (for example Sentance, 2011).

to fall in 2011 as the Eurozone crisis intensified, undermining UK financial markets and export demand. This led to an additional £125bn of Quantitative Easing over fourteen months from October 2011, shielding financial capital and assets from the instability triggered by the ongoing European Sovereign Debt Crisis.

**Eurozone Crisis and Quantitative Easing 2**

2011 saw the Eurozone crisis spread from Greece to other "periphery" nations, with Greece risking being forced to leave the Euro and Portugal, Italy and Spain receiving aid from the ECB to stabilise their debt markets (Buiter & Rahbari, 2012). The result was renewed tensions in UK funding markets as the City of London was exposed to counterparty risk in Euro markets (Bean, Bank of England, 2011b, Q9) — although not to the same extent as French and German banks (Howarth, 2013; Thompson, 2015). This led to both a tightening of domestic credit conditions, as banks faced higher funding costs, and a decline in demand, as firms and households again lowered their expectations (Bank of England, 2011e). By November, as the Eurozone entered another recession, the expectation was that, once the price shocks wore off, UK inflation would significantly undershoot its target (Bank of England, 2011d). Thus to shield financial markets from the turmoil, and hopefully ease credit conditions, the MPC requested permission to increase its asset purchases (King, 2011a; Monetary Policy Committee, 2011). Which, in the same manner as QE1, served to secure asset values and increase financial liquidity (Churm et al., 2015; M. A. S. Joyce et al., 2013), effectively shielding financial capital from the destabilising costs of crisis (Bowman et al., 2013). Subsequently, inflation stabilised at 2.7% until late 2013, while unemployment remained at 8% and growth remained low.

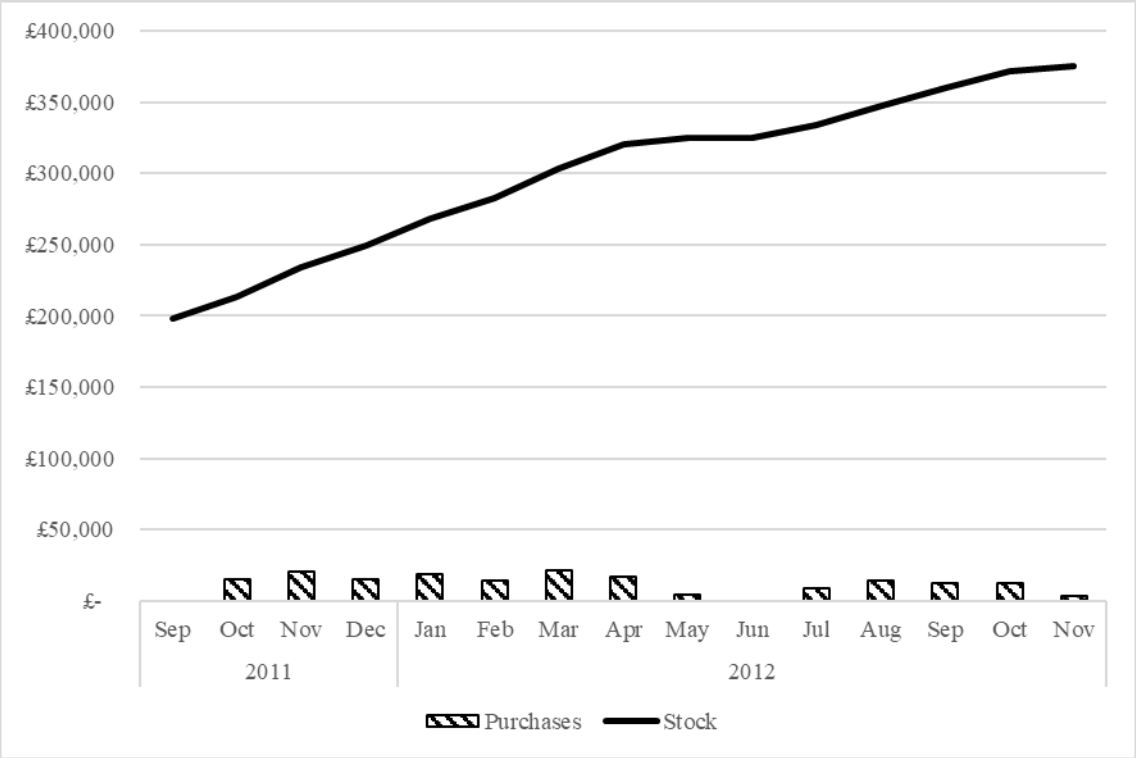



*Figure 28. Asset Purchase Facility gilt purchases and stocks 2011–2012 (Bank of England, 2018e)*

The consequence of this strategy of medium-term monetary discipline was thus to shield capital from the costs of crisis: first, by allowing firms to pass on additional costs to consumers; then by shielding financial assets from the effects of the Eurozone crisis. This left labour to bear the costs of adjustment. As the Bank of England continued its permissive stance towards inflation in an environment of high unemployment and austerity, firms continued to pass on increased costs to labour, which saw its ability to secure any offset in wages diminish.

Labour was in effect under a threefold attack facilitated by the Bank of England. Firstly, the economic narrative of austerity advanced by the coalition government served to place downwards pressure on wages. This in turn allowed the MPC to adopt a permissive stance to inflation increasing the cost of living. Finally, the recession and ensuing stagnation forced households to revise their expectations downwards in relation

to their ability to borrow and repay debt, which was reinforced by the ongoing austerity narrative (Stanley, 2014).

Thus, the strategy of medium-term monetary discipline facilitated a restructuring of the UK economy towards overcoming the structural crisis of capital by suppressing labour. This improved the relation M–C, money as command, within the circuit of capital as money could command increasing amounts of labour. This in turn increased captial's ability both to repay debts and to attract fresh credit, stabilising the credit structure. The problem with this was that it was a restructuring within the already existing, and relatively impoverished, conditions of production. Economic and monetary growth remained depressed, significantly below the needs of the British government's fiscal consolidation agenda. Meanwhile, many firms were experiencing increased borrowing costs, as the financial sector continued to use the additional funds to recapitalise and sought more secure investments. However, while the Treasury expected the Bank of England to take further action to stimulate monetary growth, the Bank of England was reluctant to become involved in managing the lending practices of banks. Thus, the Treasury began to take the lead on stimulating money growth, until the Bank of England agreed to take on a more active role as an economic manager.

## Managing Credit Practices

The Bank of England's strategy of permissive monetary policy combined with Quantitative Easing served to protect capital in general terms from the immediate costs of crisis and to extract gains from labour. However, this was not evenly distributed. The main beneficiaries were financial actors and publicly listed companies and the 250 corporations that could directly access public bond markets (Bank of England, 2012c).

Small and Medium Sized Enterprises that were dependent on bank lending, while able to pass on additional costs to consumers, were facing significant funding difficulties (Franklin, Rostom, & Thwaites, 2015). As banks sought to restructure their balance sheets and recapitalise through increased profits (Bank of England, 2012f, pp. 24–28), they were now both asking for more collateral and charging higher spreads against the base rate as banks now sought either higher security or higher returns for their funds (Bank of England, 2018a).

This posed a political problem for the British government, which sought to drive growth, and thus its own deleveraging, through cheap credit for British business, of which SMEs represented 98.7% (Department for Business Innovation and Skills, 2013). Despite this, the Bank of England was largely unwilling to become involved in the lending practices of private banks (King, Treasury Select Committee, 2011, Q22 & Q96), having withdrawn the Commercial Paper Facility in 2010 (Bank of England, 2009e). Instead, the Bank of England noted the deflationary pressures of the lack of credit growth but also the need for the financial sector to recapitalise and 'retain profits as a cushion against possible losses' (King, 2012a). This raised a new point of tension between the Treasury and the Bank of England, albeit a congenial one, as the Treasury felt that the Bank of England should be doing more to increase growth (Interview, Senior Treasury Offical, 2017), especially as monetary policy formed the expansionary correlate to the fiscal contraction in the government's strategy — a point reiterated in the open letters to the Governor (Osborne, 2011b, 2012a).

This reluctance to act meant that the Treasury began to develop strategies of bypassing the Bank of England to encourage bank lending and stimulate broad money growth: first, through the use of lending targets under Project Merlin and then through

government subsidies in the National Loan Guarantee Scheme. These schemes, however, proved at best limited in their ability to expand bank lending. So in 2012, the Governor of the Bank of England was called to a meeting of the "Quad" where it was agreed that the Bank of England would have to take action. The result was the Funding for Lending Scheme.

**Project Merlin**

In late 2010 and early 2011, as inflation soared above the Bank's inflation target and the Eurozone crisis took hold, the Treasury engaged in a series of negotiations with the UK's largest high street banks — Barclays, HSBC, Lloyds Banking Group, RBS and Santander. The result was an agreement on the 6th of February, whereby the banks agreed to exercise some constraint on the politically contentious topic of bankers' bonuses and to set targets for increased lending to UK SMEs (alongside some smaller commitments to higher taxes and capital for government projects) (HM Treasury, 2011c). In return, the government made a commitment not to harm the international competitiveness of the City of London in the ongoing reregulation programme and to engage more positively with its representatives (HM Treasury, 2011d).

In contrast to the lending panel set up in 2008 by the previous Chancellor, the agreement was largely performative. While the 2008 agreement involved the Treasury using its position on the boards of Lloyds Banking Group and RBS to create lending agreements on the premise of further government guarantees (HM Treasury, 2009a), Project Merlin was largely performative as the banks self-declared their targets according to their own accounting practices, and the agreement contained no repercussions for failure to comply (Macartney, 2014). Thus, while the project ultimately failed to boost

| | 2011 Q1 | 2011 Q2 | 2011 Q3 | 2011 Q4 |
|---|---|---|---|---|
| **'Project Merlin' data** | | | | |
| Gross lending facilities | 47.3 | 53 | 57.4 | 57.2 |
| o/w gross lending facilities to SMEs | 16.8 | 20.5 | 18.8 | 18.9 |
| **Alternative measures of lending (Trends in Lending basis)** | | | | |
| Gross lending | 26.7 | 24.3 | 23.9 | 25.0 |
| Net lending | −2.8 | −3.7 | −0.1 | −3.0 |

*Table 3. Lending to UK businesses by the five major UK banks (£ bn) (Bank of England, 2012a)*

SME lending in 2011 (in fact, the corporate money supply shrank in 2011), it saw the Treasury take on responsibilities for the transmission of monetary policy.

While the 2009 agreement came as a "quid pro quo" for the further extension of government support and thus risk to the Treasury, the 2011 agreement was an attempt to make effective the permissive stance of the MPC — a task clearly within the Bank of England's remit. Indeed, the act of using moral suasion to shape lending practices had long been an important role of the Governor of the Bank of England (e.g. Capie, 2010, pp. 264–266 & 492–432). This strategy of the Treasury taking responsibility for shaping lending practices was continued in the National Loan Guarantee Scheme [NLGS], as the Bank of England continued to focus on systemic and-market level responses through further Quantitative Easing

**National Loan Guarantee Scheme**

The NLGS was launched in 2011 as part of a £40bn 'major programme of credit easing to help small business' (Osborne, 2011a), matched by a £40bn reduction in the Bank of England's disused, private asset purchase indemnity (Osborne, 2011a), thereby

reallocating the Treasury's indemnity risk from the Bank of England to an active scheme run by the DMO.

In essence, the NLGS was a revisiting of the 2009 Asset Protection Scheme agreements, but with a legally enforced cost if banks subsequently failed to comply. It operated by providing a significantly discounted guarantee to bank funding on the condition that the whole funding benefit was passed on to SME borrowers — at a minimum rate of a 1% discount — within six months (HM Treasury, 2012b). Failure to do so would result in penalty fees and exclusion from further guarantees (DMO, 2012b). In short, the scheme directly subsidised lending to SMEs in an attempt to reduce the cost of up to £20bn of business loans.

The reality, however, was that only two banks — Lloyds and Barclays — participated in exchange for guarantees on £1.4bn and £1.5bn credit instruments, respectively (DMO, 2012a). This amounted to approximately 10% of their 2011 SME loan books (Barclays Plc, 2011a; Lloyds Banking Group, 2011). In other words, it did not drive credit expansion but simply subsidised already existing credit lines, easing the pressure on the SME sector to restructure and firming some bank balance sheets.

The implications of the NLGS were thus twofold. Firstly, it represented a continuation from Project Merlin of the Treasury taking a proactive stance in attempting to facilitate monetary expansion. Unlike 2008–09, this was undertaken not to prevent the sudden deleveraging of major UK banks but to try to shape their lending practices. It also directly replaced Bank of England capacity to perform similar functions through its private asset schemes and reallocated them to the Treasury controlled DMO. However,

the constraints of state aid rules on the DMO to engage in markets left the scheme partially used and to little overall effect (Interview, Macpherson, 2017).

Despite this limited efficacy, both Project Merlin and the NLGS represent the Treasury attempting to fill the gap between the narrative of monetary expansion driving growth and the reality of rising costs, deflation and stagnation. The Bank of England remained reluctant to become involved in the practicalities of lending, despite having readily assumed the mantle of monetary-led growth in exchange for austerity. However, the Chancellor and the Governor remained on amicable terms and as the crisis developed an agreement was reached that the Bank of England would take further action to secure credit growth (Interview, Macpherson, 2017). The result was the Funding for Lending Scheme, announced in principle in June 2012 (King, 2012b) and activated on August 1st.

**Funding for Lending Scheme**

The Funding for Lending Scheme [FLS] was the result of several factors. Firstly, it served a political agenda of meeting the Treasury's desire for more proactive measures from the Bank of England (Interviews, Bean, 2017; Cross, 2017). Secondly, the backdrop was the ongoing Euro crisis and the apparent lack of a strong UK recovery from the crisis, which was widening out both sovereign and bank CDS spreads which had spread to the money markets (Figure 18). Finally the Special Liquidity Scheme, introduced in 2008 to give the banks some breathing space, had closed in January 2012, forcing banks back into private funding markets. So, at a time when the Bank was trying to keep interest rates down, commercial bank deposit rates were actually going up as they competed for retail funds (Interviews, Bean, 2017; Cross, 2017; Senior Bank of England Official A, 2017).

The FLS was based on a similar technical model to the SLS. However, unlike the SLS, it did not seek to charge market rates – which were wider spreads than normal - but instead to explicitly provide a funding discount (Interview, Senior Bank of England Official A, 2017). Under the FLS, any institution with access to the DWF could use any of its pre-positioned collateral to borrow 9-month Treasury bills on renewable terms of up to four years at the universal SMF haircut and a fee of 25 basis points (Bank of England, 2012h), a rate significantly below the market rate (Bank of England, 2013e, p. 11; Churm, Radia, Leake, Srinivasan, & Whisker, 2012). This enabled UK banks to access cheap high-grade liquid collateral to use in funding operations. The catch, however, was that to keep this discount an institution must maintain lending to the UK non-financial sector, and to increase the amount they could borrow they must increase their lending (Bank of England, 2012h). Failure to maintain lending would incur penalties of up to 150 basis points against any borrowed bills (Bank of England, 2012h), a rate still significantly below the stressed market rate (Bank of England, 2013c, p. 13).

By setting the rate charged on the borrowed bills in relation to the institutions' lending practices, the FLS sought to directly incentivise credit growth on a large scale. However, unlike the Treasury schemes, it did not set any conditions on the terms of this lending. While NLGS set a limit on the associated interest rate and a floor to the level of new lending, the FLS only required that there was no reduction in lending. Furthermore, the credit risk of any lending would remain with the banks, as the scheme only reduced the funding and liquidity risk (Bank of England, 2012d). This system of incentives but lack of any direct involvement in lending practices was key to gaining the Governor's agreement (Interview, Macpherson, 2017).

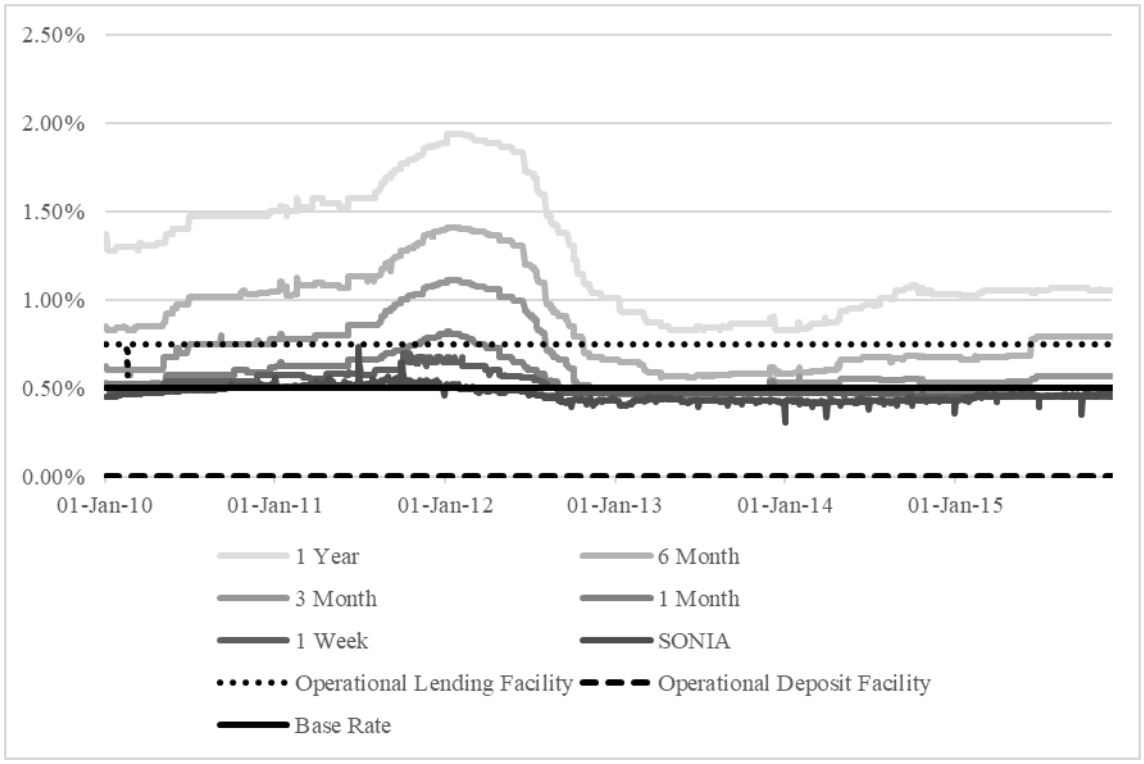



*Figure 29. Sterling LIBOR and OSF 2010–2015 (Bank of England, 2018e)*

However, with a change of Governor in January 2013, the Chancellor took the opportunity to appoint a more proactive Governor. Subsequently the FLS saw a tapering and more targeted implementation of its subsidies. At the request of the Financial Policy Committee, which was concerned about the level of household debt, from 2014 the pool of assets against which the subsidy was awarded was narrowed to exclude lending to households and expanded to include non-bank credit providers (Bank of England, 2013g). Then from 2015 it excluded lending to large corporations, with only SME lending counting for the subsidy calculations (Bank of England, 2014l). In essence, it served as a continuation of the Project Merlin and NLGS — which was now redundant (HM Treasury, 2012a) — in attempts to directly steer lending practices.

In practice, however, the effects of the FLS are much more questionable. Against its own stated goals of increasing lending conditions for the UK economy, its results were ambiguous. While it proved relatively successful in reducing the cost of credit to

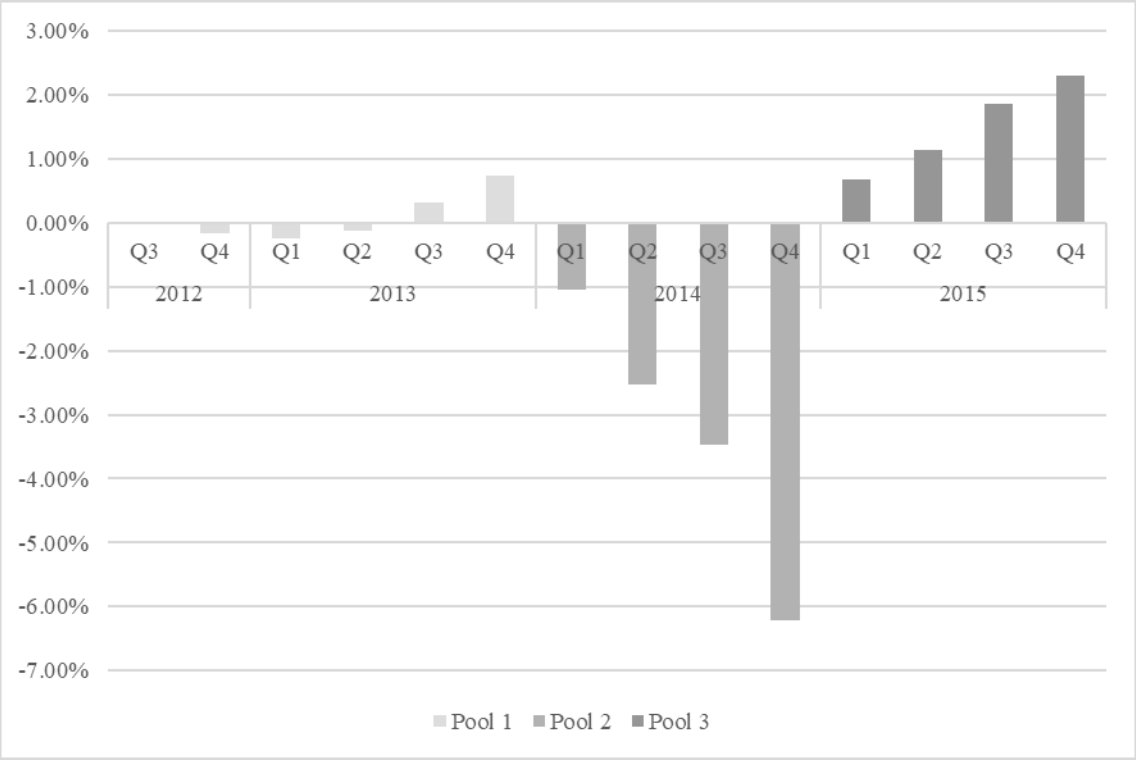



*Figure 30. Cumulative % change in net lending to FLS targeted sectors (Bank of England, 2018b)*

borrowers (Figure 31), it was not until 2015 that the targeted lending pool showed persistent growth (Figure 30). By this time broad economic growth, increased profitability and thus increased corporate money growth were already improving the creditworthiness of UK enterprises in general, as they increasingly funded operations through retained profits (McCafferty, 2014). The main success of the scheme was calming financial markets after its initial announcement in June 2012, two months before its implementation (Churm et al., 2015).

The FLS, like the Quantitative Easing programmes that preceded it, served largely to subsidise and secure both funding for the financial sector and market demand for financial assets. It served to replace the end of the SLS and the demand for liquid high-quality collateral shielding finance, and some borrowers, from the effects of the Eurozone crisis rather than driving growth. Unlike QE, however, the FLS was overtly designed to subsidise capital. At its launch the Bank of England acknowledged that the subsidy may

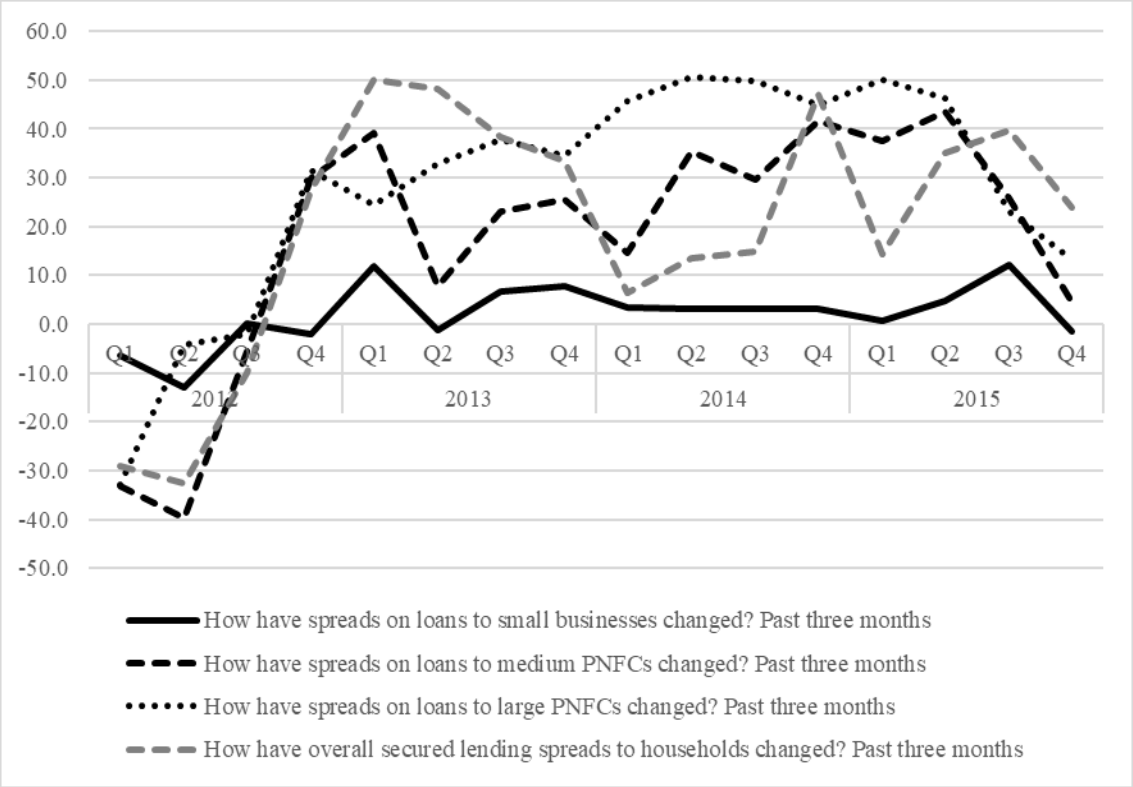



*Figure 31. Credit Conditions Survey 2012–2015, positive implies an improvement in credit conditions. (Bank of England, 2018a)*

simply be used 'to boost profits and capital rather than lowering lending rates, although healthier capital positions would still yield a longer-term benefit' (Bank of England, 2012g, p. 15). Meanwhile, the tapering of the scheme towards a focus on lending to corporations rather than the household sector was an explicit subsidy to capital, leading corporate money growth to drive aggregate demand.

Finally, while the FLS provided political cover for the Bank of England from increasing pressure from the Treasury to act, it also further deepened the Bank of England policy conundrum and further reduced its policy space and the distance from "normal" conditions. By providing a blanket funding discount to the banking sector, the Bank of England had in essence revoked the last component of its market discipline strategy. The only remaining condition was that debtors continued to service their debt and did not default. Thus, as growth returned in 2014 and 2015, the Bank announced a staggered

closure of the scheme, whereby the last drawdown could be no later than December 2018 (Bank of England, 2015d, 2015i)[26] — after which the liquidity could be rolled over for four more years. Thus the FLS provided a subsidy to British banks for a decade, with increasingly discretionary features.

This deepened the political/policy problem facing the Bank of England. It was now not only nominally but actively engaged in driving lending practices and thus was exposed to political challenges as an active economic manager making executive discretionary decisions, especially as the FLS was designed and managed by the Bank executive with no input or oversight afforded to either the MPC or the newly created Financial Policy Committee (Interviews, Bean, 2017; Miles, 2017; Turner, 2017) — despite driving money growth and securing bank liquidity. The political problems of discretionary action and subsidy were left with the Governor — no longer shielded by the policy committees.

This reallocation of responsibility for demand management away from the Treasury and to the Bank of England was increased with the change of governors in 2013. The appointment of Mark Carney as a replacement to the outgoing Mervyn King was a key opportunity for the Chancellor to exercise power over the Bank of England. He used this opportunity to appoint a Governor with a more "post-Keynesian bent", who was happier to innovate and push demand. This coincided with a change in mandate for the MPC, which increased the focus on economic growth, subject to inflationary concerns, and a Treasury mandated review of "Forward Guidance" as a potential policy tool. These

[26] It is worth nothing that the Term Funding Scheme superseded this by drastically expanding the FLS subsidy in order to offset the financial turmoil of 'Brexit' (Bank of England, 2016d).

further pushes into economic management coincided, however, with the rise of deflationary pressures as the limits of monetary policy were met.

## Deflation and the Limits of Monetary Policy

By the end of 2012, the critical juncture of the Eurozone crisis had passed and, while growth on the continent remained subdued, the British economy began a steady path to recovery. Credit expansion increased as banks slowly recapitalised (Bank of England, 2013b, pp. 13–15). Domestic demand grew steadily through increased mortgage lending (Bank of England, 2013e, 2014i), subsidised first through the FLS and then through a series of Treasury schemes, such as the "help to buy" and the extension of the "right to buy" discount (House of Commons Library, 2014; Osborne, 2013a). Meanwhile, UK firms were able to expand on subsidised credit and increasingly cheap labour in real terms leading to a steady fall in unemployment (Figures 27 & 33).

Despite this return to growth, concerns continued over its stability. Firstly, the new growth was coming largely from absorbing labour market slack rather than increases in productivity, which remained stagnant (Figure 34). Meanwhile, real wages fell, as the quality of employment became increasingly precarious and low paid (Green & Lavery, 2015). Thus, while the return to growth facilitated a faster deficit consolidation (Figure 14), it was premised on a growth of household debt without increased household income potential, essentially by extracting a form of rent from previously unindebted households (Marazzi, 2010). Thus, it served to "buy time" (Streeck, 2014) in a repeat of the "privatised Keynesianism" (Crouch, 2009) of the pre-crisis era. The growth in net household income and GDP was being matched by a proportionate increase in household debt, which stabilised at 150% of disposable income (OECD, 2018a) as the saving rate

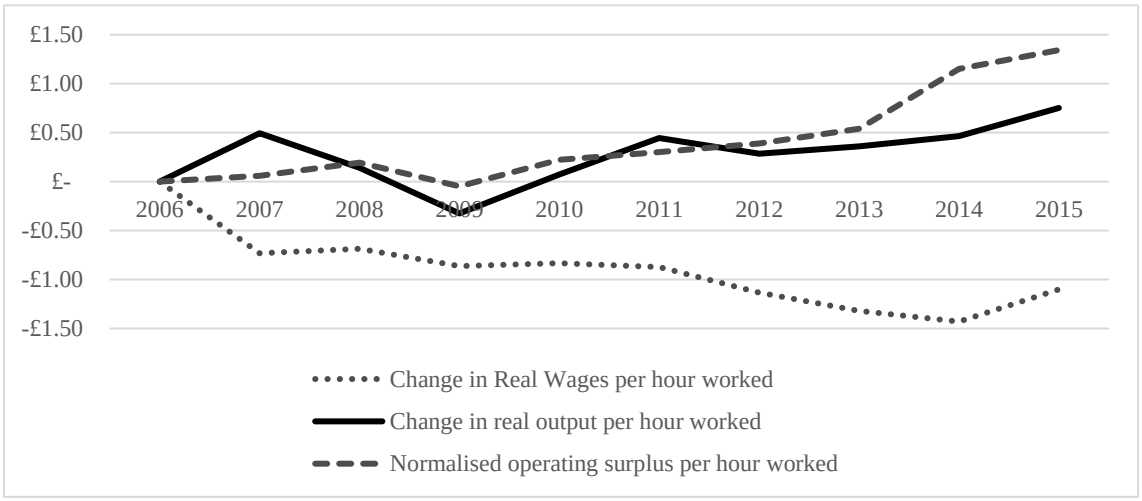



*Figure 34. Change in distribution of output per hour worked (Office for National Statistics, 2016, and author's calculations)*

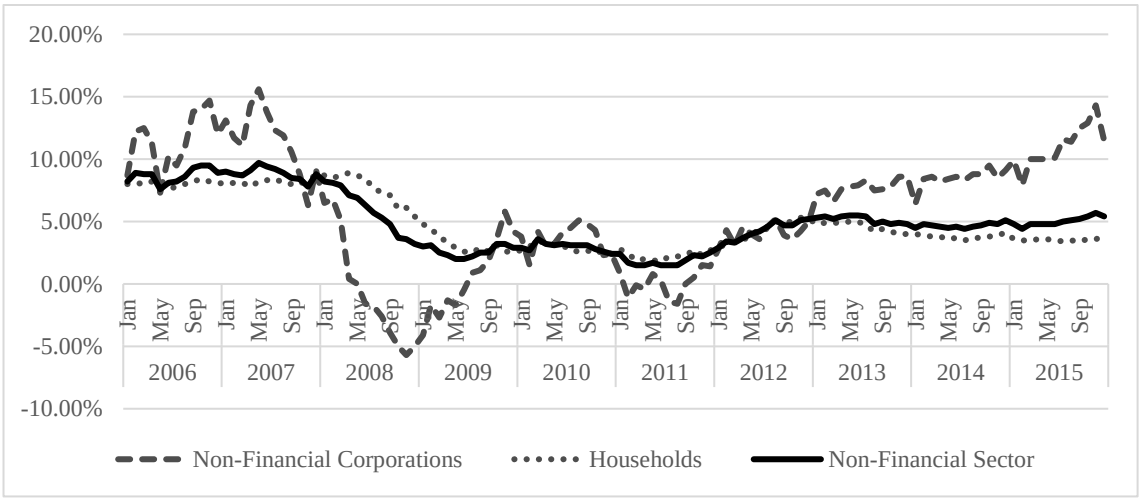



*Figure 33. Broad money (M4) growth to non-financial sectors 2006–2015 (Bank of England, 2018e)*

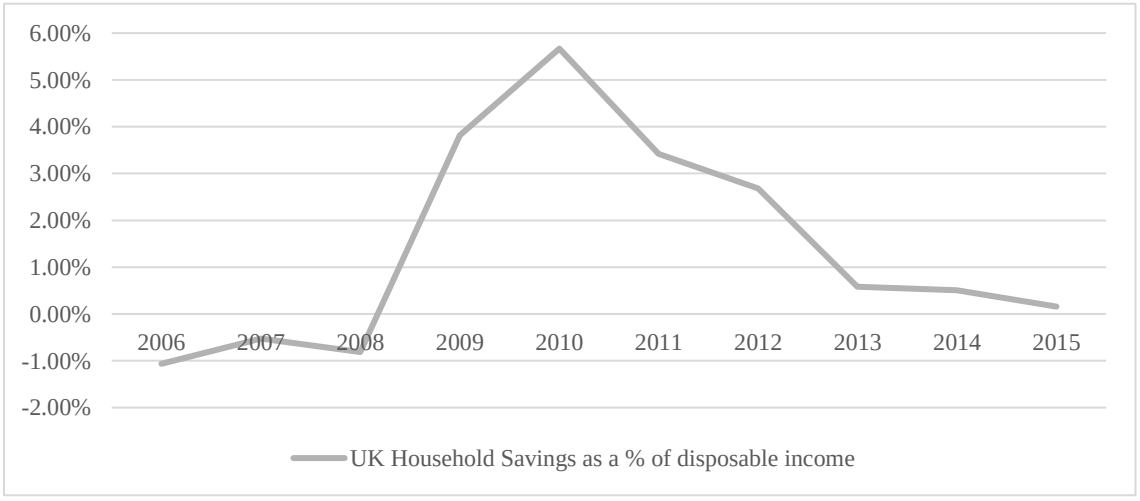



*Figure 32. UK Household Saving (income − expenditure) as % of GDP (OECD, 2018b)*

fell to under 0.5% of income (Figure 21). This risked a sudden return to inflation as the slack in the labour market reached its limit and wage pressures began to undermine profitability (Bank of England, 2014j, p. 6). This would force a rise in interest rates just as households increased their indebtedness, which would risk a sudden collapse in domestic demand as revenues stabilised but costs increased (Bank of England, 2013d, pp. 22–23; 2015h, p. 15).

The return to growth was thus the result of the falling real cost of labour and subsidised credit, not an improvement in fundamentals. This meant that the capacity for the UK economy to accommodate external shocks was limited. Firstly, there was the continuing problem of household indebtedness (Bank of England, 2015h, p. 15), which required real wage rises to alleviate and provide policy space for the Bank of England to raise interest rates. This was linked to the second problem of low productivity growth, as firms increased their profitability through lower wages rather than increased productivity (Figure 34). Without increases in productivity, wage rises would have to come from either higher prices or reduced profits. The former would potentially cause a rate rise and the latter would risk future growth as money as profitability fell — especially as current expansion was based on subsidised credit.

Thus, despite the return to growth, the Bank of England faced a threefold problem. Firstly, the credit structure needed outstanding debts to be paid and the subsidised values of financial assets to be realised. This, however, required firms, households and the state to have sufficient surpluses to repay debts. This was tied to the second problem of the needs of capital to valorise its product and thus pay wages, taxes and commercial credit. This was predicated on the ability to pay lower real wages than had been expected by indebted households (the moment M–C). This left households limited in their ability to

purchase goods and thus valorise product (the moment C–M′). This structural problem was also increasingly becoming politically assigned to the Bank of England itself, as the narrative of expansionary fiscal contraction — and the repayment of state debt — also tied the hands of the British State. However, this threatened not only the independence of the Bank of England but also its future policy space, as it was forced to deepen its 'exceptional' policies and thus stray further from the 'normal' conditions it sought to return to. The Bank of England was thus caught in a three-way requirement of the needs of money as credit, money as capital and the political economy of the British State.

Monetary policy, however, is ill equipped to deal with this broader economic situation of low productivity, low employment and low wages. Its ability to shape demand was through the cost of credit and thus it could ease the need to save and repay debts. It did not shape the way the funds were put to use or the opportunities for their deployment. Monetary policy thus faces a form of policy spiral. Cheap credit not only allows firms to restructure but dis-incentivises them from doing so, leading to further cheapening of credit to prevent recession — a potentially infinite spiral of deflationary stagnation (Borio, 2014). The British State, however, was keen to continue the process of substituting monetary policy for fiscal policy as demand management (see Green & Lavery, 2015, pp. 906–907), and utilised the change in governorship in 2013 to allocate further responsibility for economic management onto the Bank of England.

**New Governor, New Mandate**

2013 saw significant changes at the Bank of England. Despite a growing feeling in some parts of the Bank of England that 'the Treasury should do more' to stimulate demand (Interview, Yates, 2016), at the political level the Treasury was committed to the need for

austerity — albeit at a reduced rate as the economy stagnated and undermined tax revenues (Interview, Macpherson, 2017) — and sought to continue the policy of substituting monetary policy for fiscal policy. Thus, with the end of the second and maximum term of the relatively conservative Governor Mervyn King, the Chancellor took the opportunity to assert direct influence over the direction of the Bank of England.

First, there was the question of successor. The Bank of England's increased reluctance to take more radical action peaked in 2012 when the Governor criticised those who sought to move beyond broad market interventions:

> It is strange that those in Parliament and the press who feel the central bank should not talk about fiscal policy are often the most enthusiastic to see the Bank actually do it. (King, 2012b)

This was seen by some as a clear indication that:

> "we've done all of this QE, we've done as much as we can do, fiscal policy needs to step in", you know and Osborne had a fit. And I think that was the single speech that made Osborne appoint Mark Carney and not appoint Mark Tucker. He was just like "well if you guys can't do anymore I'll get someone in who can" (Interview, Cross, 2017)

Mark Carney, the incumbent Governor of the Bank of Canada, was chosen, who had a more activist "radical" reputation (*Financial Times*, 2012b). Second, the Chancellor used the change in leadership to impose a new mandate on the Monetary and Financial Policy Committees that emphasised their obligation to support the government's economic growth strategy: specifically that the committees should be actively seeking policy strategies that would enable them to meet this end (Osborne, 2013b).

The appointment of an activist Governor largely served to complete the path deepening the Bank of England's involvement not only with Treasury strategy but also with economic activity in general. Thus, while the departing Governor went on to advocate the Bank of England becoming a "Pawn Broker of Last Resort", providing only broad financial assistance against any adequate collateral (King, 2016) — the Bank of England began not only to target specific lending practices through the FLS but also continued to expand the range of collateral accepted in the SMF (Bank of England, 2015b). Thus the change in Governor served to facilitate the continuation of the Bank of England's trajectory towards proactive collateral and credit management and to remove potential political hurdles from this path.

At the same time, the transition process between Governors provided a point of weakness for the Bank of England, where its leadership would find it difficult to resist broader reforms. The incumbent, King, was a "lame duck", as he would not be responsible for any of the reforms. Meanwhile, the successor, Carney, was still not Governor and was thus unable to resist any reforms. Thus, the Chancellor used the 2013 budget as an opportunity to revise the mandate of the Monetary Policy Committee to provide more consideration of economic activity and the need for growth.

The reformed mandate itself did not involve a significant shift in wording. Whereas the previous mandate simply states that the target was '2 per cent at all times' and that deviations of more than 1% would require a letter explaining why (Osborne, 2012b), the revised mandate stated that 'The inflation target is forward-looking' and that deviations were to be expected — but still required explanation (Osborne, 2013b). What was different was the explicit inclusion of 'monetary activism and credit easing' as a part of the subordinate mandate 'to support the economic policy of Her Majesty's Government'

(Osborne, 2013b).The effect, then, was that the external members of the MPC were under the clear impression that they must include broader economic concerns in their decision making (Interview, MPC Member B, 2017). Furthermore, the accompanying letter required the Bank of England to investigate further policy tools to meet both its inflation target and the subordinate mandate for monetary activism, starting with a full review of "forward guidance" as a new policy tool (Osborne, 2013b).

**Forward Guidance**

Forward Guidance was a strategy previously employed by the new Governor during his time at the Bank of Canada. It involved explicitly binding the future decisions of the Bank of England and its policy committees to future conditions — whether the passage of a certain period of time or a specific future condition (De Vita & Berger, 2015; Weale, 2013). This then would shape the future expectations of economic actors regarding current and future costs of credit etc., ideally leading financial markets to stabilise low long-term interest without having to change policy variables (Bank of England, 2013h).

This strategy was, after a formal review, introduced in August 2013, largely to combat the rise in longer-term interest rates, as the return of global growth and stabilising inflation had led to expectations of a potential rate rise being priced into long-term credit markets (Monetary Policy Committee, 2013). Thus at its August 2013 meeting, the MPC issued the explicit declaration that:

> The Committee intends not to raise Bank Rate from its current level of 0.5% at least until the Labour Force Survey (LFS) headline measure of the unemployment rate has fallen to a threshold of 7%. (Monetary Policy Committee, 2013)

This was subject to the "knockout" conditions that inflation was not expected to rise above 2.5% and that the Financial Policy Committee did not perceive a financial stability risk from low rates (Bank of England, 2013c). Although unemployment was only at 7.8% at the time, the Bank of England did not expect any significant reductions in the short run, as growth prospects remained depressed and there was an expectation that currently underemployed[27] workers would pick up most of the immediate demand for labour alongside productivity gains (Carney, 2013).

While this did have the immediate effect of reducing long-term interest rates (Bank of England, 2013e), the fall in unemployment was significantly sharper than expected and by early 2014 unemployment had reached 7% (Figure 15). This caused Forward Guidance to backfire, as rate rises were now priced into markets sooner rather than later (Bank of England, 2014i, p. 11). This forced the MPC to backtrack and focus on the vaguer guidance of the need for less "slack" in the economy and most importantly wage growth though productivity gains in order for interest rates to rise (Bank of England, 2014i, pp. 8–9).

While Forward Guidance has thus had a dubious beginning, it continues to remain a part of the Bank of England's monetary policy framework. As such, it is also a significant repositioning of the Bank of England as an economic manager. It serves to explicitly link monetary policy decisions and frameworks to non-monetary economic variables, such as wages or unemployment, which in turn links Bank of England activity to broader economic concerns as a persistent feature of its operations and their framing.

[27] Workers who are technically employed but are only on part-time or casual contracts or otherwise are working below potential.

In short, it represents the Bank of England taking on responsibility for broader economic concerns as part of its monetary operations. While it is not actively targeting these variables (Carney, 2013), their inclusion in its framework and their relevance in the MPC's decision making are now open to question and challenge.

Furthermore, what Forward Guidance does is lay bare the core problem facing the Bank of England — the need for non-inflationary wage rises though productivity growth. The targeting of unemployment and then "labour market slack" were premised on the fact that low wage growth was now the main deflationary factor inhibiting demand growth and that anchoring interest rates to the labour market would incentivise pre-emptive investments to boost productivity. Thus Forward Guidance, by providing clarity to the MPC's thinking, sought to shape the business decisions of British capital. Without stable improvements in wages through improved productivity, the ability of households to repay and thus take on credit was limited, a fact that had forced the Bank of England's new Financial Policy Committee to take action to limit the financial stability risks of household debt levels (see chapter seven). Meanwhile, real wage rises without increases in productivity, while potentially inflationary, would threaten to spiral and undermine the profitability of capital and the credibility of the currency.

The effectiveness of this strategy of advocating investment and stable wage increases was limited. The expected productivity growth remained elusive as unemployment continued to fall, despite a concerted research agenda at the Bank to tackle the "productivity puzzle" from a monetary perspective (Bank of England, 2014a, p. 14). Furthermore, the weak fundamentals of UK demand — premised on rising low-quality employment and household debt (Bank of England, 2015g, p. 25) — meant that the economy was unable to mitigate external price shocks. Thus, as sterling rose and

commodity prices — most notably oil — fell in 2014 and 2015, domestic demand was not able to compensate for the downwards price pressures (Bank of England, 2014k, 2015f). The result was inflation falling to −0.1% in September 2015. Between a quarter and a third of the deflationary pressures which led to this fall were attributed by the Bank to 'the past weakness of domestic cost growth, and unit labour costs in particular' (Bank of England, 2015e, p. i). Thus, despite a pickup in business investment and some productivity growth in 2015 alongside an improvement in wages, expectations for future inflation fell (Bank of England, 2015h). So, as 2015 drew to a close, the Bank of England, while seeking to "look through" this new challenge of deflation (Interviews, Bean, 2017; MPC Member B, 2017), was increasingly predicating its strategy on the rise in productivity and real wages stabilising as an upward trend (Bank of England, 2015h).

This struggle to resolve the problem of productivity and the valorisation of commodities reveals the limits of monetary policy as an economic management strategy. Monetary policy serves to mediate the tensions between past obligations, current economic activity and future revenues. In doing so, it is able to shift the temporal requirements of restructuring and reform, raising and easing the pressure both on the economy as a whole and on certain sectors (such as through the FLS). What it cannot and does not do is to create the fertile soil for credit expansion to occur, the demand for new debt or the profitable application of fresh funds.

Despite this the political economy of the austerity programme secured, in order to stabilise the credit structure, required the Bank of England to bear this mantle. The Bank of England finds itself in an impossible situation. It has been tasked with the management of the UK economy, but can only do so at the cost of future policy space to resolve future situational crises. Without external action or innovation, the Bank of England now faces

a potential crisis of re-politicisation in the face of future economic shocks as it reaches the limits of monetary policy to ease the passing of the structural crisis of British capital.

## V.iv. Conclusion

In terms of the Bank of England's monetary policy and its broader financial and economic responsibilities, the post-2008 period has seen an almost complete reversal in strategy. Compared to the 'narrow' monetary policy of 2006, where a single tool — the base rate — was used to meet a single target — CPI inflation at 2% — the Bank of England in 2015 was at the opposite end of the spectrum. The strategy of market discipline as a means of shaping credit practices had been all but abandoned in the face of existential crises of money as credit and of money as means of exchange crises, which led the Bank of England to take increasingly interventionist stances to set bounds on market discipline; and then to subsidise credit operations. The consequence was to expose the Bank of England both structurally and politically to the broader needs of the British State, placing into question the "independence" of the Bank of England, as monetary and fiscal policy became increasingly intertwined.

The use of Quantitative Easing and government bills in market making operations alongside a weakly capitalised banking sector directly linked the Bank of England's operations to the value of UK state debt. Meanwhile, the British State needed demand growth and economic credibility to legitimate itself. The resulting compromise of securing the value of state debt in exchange for monetary activism saw the Bank of England forced to continue along the path of active economic management, as it secured the liquidity and values of almost all debt and became involved in discretionary subsidies to different parts of the economy.

The consequential attempt by the British State to depoliticize the question of demand growth to the Bank of England through a focus on fiscal responsibility and monetary activism has now placed the Bank of England in an almost impossible position. Having shielded capital from the ravages of crisis throughout 2008–2013, by preserving market values of assets and facilitating a fall in real wages and a rise in relative operating surplus, the Bank of England was left waiting for the return to productivity growth, which would allow credit practices to stabilise around rising real wages. Firms, however, appeared to be happy to use the subsided credit to discount costs and raise profits, rather than engage in restructuring and wage growth. Thus, while the Bank of England hopes to "return to normal" by unwinding its "exceptional" monetary policies such as the APF and the FLS, it now bears significant responsibility for this recovery, and can only influence it by moving further away from "normal".

This analysis does not necessarily disagree with the key findings of the crisis and growth literatures that the recovery has been based on regressive state strategy (Green & Lavery, 2015) and the continuation of neoliberal credit-based growth strategies (Crouch, 2011; Hay, 2013a, 2013b; Streeck, 2014), and indeed the solution may be 'the politics stupid' (Gamble, 2014, p. 25). However, by disaggregating the state and focussing on the internal contradictions and crises of money in capitalism, it has shown how these developments have involved a significant restructuring of state–central bank relations.

Furthermore, it has shown how these developments are also the result of struggle and compromise over the different needs of the Bank of England as a monetary authority and the British State as a political authority. By approaching this from the inherent contradictions of money in capitalism, this chapter has provided a unified approach to the Bank of England's changing role. The needs of money as credit, means of exchange and

capital provided a clear path for analysing the shifting stances of the Bank of England and the British State as well as the limits to the emergent strategy, placing the question of money at the centre of analysis of the current crisis of British capitalism.

By expanding on the competing political and monetary needs, the struggle over monetary and fiscal policy as financial markets and the economy convulsed is brought to the fore. And its doing so has shown how the eventual compromise between the state and the Bank of England is central to understanding the Bank of England's role as an active monetary and economic manager today. So, in contrast to much of the central banking literature, the development of new collateral and monetary policy is shown to be both the result of, and influenced by, the development of the British political economy, rather than simply technical fixes to financial and economic problems with political implications (c.f. Dow, 2014; Gabor, 2014a, 2016; Mehrling, 2011; Singh, 2014).

This implications of this shift in strategy towards monetary activism and market management extends further than the development of an economic management mandate. Alongside these changes in monetary and economic management, the Bank of England was also engaged in a conflict over the responsibility and operationalisation of the UK's financial stability. The final chapter thus completes the assessment of the changing role of the Bank of England from narrow monetary manager to active economic and financial manager, by reviewing the development of the financial stability debate from 2008 to 2015 and the development of the Bank of England's new financial stability mandate, as it developed in tandem with its changing economic and monetary role.

# VII. Financial Stability Reforms

In exchange for being allowed to profit from taking the risks inherent in providing liquidity, or monetary and credit, services to the economy, banks have been subject to prudential regulation; given access to liquidity insurance at the central bank; and required to finance industry-wide insurance schemes to protect depositors. All three components have needed to be redesigned

(Tucker, 2009b)

the UK's plans to ring-fence the more basic retail banking business will help to protect the core payments system in the event of a crisis … It effectively separates the domestic-intermediation part of banks' activities from the entrepôt, wholesale business centred in the City of London

(Tucker, 2013, p. 209)

[Macroprudential interventions] were intended as a complement to monetary policy by insuring against risks arising in specific sectors and therefore seeking to make the central projection in the MPC's forecast more likely

(Financial Policy Committee, 2014c, pp. 10-11)

The events of 2007–2008 revealed systemic weaknesses within the regulatory architecture of the UK. The first run on a British bank in over 150 years and the mobilisation of vast sums of public money to part nationalise two of the largest banks forced the question of financial regulation and regulatory failure into the political domain (Bell & Hindmoor, 2015b). The subsequent process of reregulation saw the Bank of

England assume complete responsibility for the prudential regulation and supervision of the financial sector. The Bank of England was forced to abandon its pre-crisis strategy of distancing itself from financial stability concerns, placing them solely in the FSA, and by 2015 had come to embrace its new role as complementary to its significantly expanded monetary operations. This radical transformation of the Bank of England's strategy of market discipline, with a minimal financial stability role, to discretionary regulator is the focus of this chapter.

Within the political science literature it is this realm of regulation and regulatory reform which tends to be emphasised as the place where central banks wield most influence (McNamara, 2002a; Widmaier, 2007), where they utilise technocratic language which excludes outsiders from engaging in debate (Marcussen, 2009), exercising significant influence over state actors as a result (Baker, 2006; Engelen et al., 2012). The findings of this chapter, however, qualify this finding. While it is certainly true that central bankers form important 'epistemic communities' and can shape regulatory outcomes through their predominance in international fora and expert advice, this can only happen if the state chooses to delegate responsibility to these realms.

The key reforms to the UK regulatory architecture — namely the abolishment of the FSA and empowerment of the Bank of England — were driven and decided by political processes of statecraft. That is, they were the result of key politicians engaging in 'the art of winning elections and achieving some necessary degree of governing competence in office' (Bulpitt, 1986, p. 21). It was within rather than through these debates over the regulatory architecture and the role of the Bank of England that the Bank of England developed its approach to macroprudential regulation. The Bank responded to the 2009 Banking Act, which forced it to accept a statutory financial stability mandate,

and the party political debate that followed, a debate where the opposition Conservative Party sought to challenge the credibility of the government's flagship tripartite structure and proposed its own alternative. Thus, the future of the Bank of England's role was dictated at the polls in 2010.

In a similar manner, the subsequent coalition government's reform initiatives in the 2012 Financial Services Act and the Independent Commission on Banking [ICB] saw the Bank of England relatively side-lined within the political process of reform. However, these processes served to depoliticise the regulatory debates over the content of regulation (rather than the architecture of its implementation), allowing the Bank of England to exercise more influence. This process of delegation towards the Bank of England was completed with the 2012 Financial Services Act, which came into full force in 2013. From this point on, the Bank of England had almost full autonomy over the development of its strategy as a financial regulator.

This chapter argues that this strategy can be characterised as follows. First, it focussed on securing the production and reproduction of money as credit through the ring-fencing and then the application of significantly higher capital and leverage regulations on retail banks and systemically important actors, while allowing the non-systemic elements of the wholesale and investment banking of the City of London to remain relatively unimpeded. Secondly and subject to the first goal, the regulatory strategy sought to mitigate the destabilising effects of the changes in monetary strategy by requiring higher liquidity and capital standards, actively intervening in domestic asset markets to stem bubbles triggered by the relaxed monetary environment.

Thus, by approaching the Bank of England as a monetary authority and situating the regulatory reforms in the context of its monetary reforms, this chapter argues against the conceptualisation of the Bank of England as largely an advocate of financial interests. (e.g. Engelen et al., 2011; Solomon, 1995; Zysman, 1984), or the notion that the changes are largely due to the rejection of pro-banking narratives (e.g. Bell & Hindmoor, 2015b, 2017). Instead, they are seen as a strategic response to the changing needs of money and the credit structure.

This chapter is thus structured around two parts. The first focusses on the politically driven reforms to the regulatory architecture, detailing the Bank of England's initial resistance as it was forced to abandon its market discipline strategy in the money market and became more actively involved in the reform debates. The results, however, were determined by the 2010 election rather than any sway or discursive power of the Bank of England. The second part then focusses on the national and international development of the regulatory approach and the Bank of England's position and role in developing and implementing these reforms into a coherent strategy aimed at securing money as credit.

## VII.i. The Regulatory Architecture

The changes to regulatory architecture began with the New Labour reforms of 2008–2010, which, while largely superseded by the coalition's, are an important moment in the changing role of the Bank of England. Firstly, they set the foundations of the subsequent reforms by forcing a statutory responsibility for financial stability onto the Bank of England. Secondly, they coincide with the shift in market management strategy away from market discipline towards 'bounded market discipline'. Thus, they form a key

moment in the internal shift in the Bank of England, as it was forced by both the structural and political implications of the crisis to develop a new strategy for regulating the credit structure, a strategy that came to be defined in the initially nebulous 'macroprudential' toolkit.

Finally, what they reveal is the limitations of the Bank of England's discursive power. While much of the political science literature on central banks points to their power as technical authorities able to frame and shape policy debates (e.g. Marcussen, 2009; McNamara, 2002a; Widmaier, 2007), the main shifts in the regulatory architecture were decided by the political needs of the state. Firstly, the Bank of England's attempt to reject any financial stability obligations in the wake of Northern Rock, as it sought to enforce market discipline, failed due to the politicisation of the Bank of England's financial stability role. Secondly, the Bank of England's attempt to limit any subsequent reforms to a narrow mandate with explicit powers failed, as the government wanted to force the Bank of England to take more assertive action to secure financial stability — defining the role after the fact. Finally, the changes to the regulatory architecture sought by the Bank of England after the collapse of Lehman Brothers were decided by the politics and statecraft of the 2010 election. It was within these spaces not through them that the Bank of England developed its new financial stability strategy.

## Blame for the Rock

The aftermath of Northern Rock saw the Bank of England attempt to distance itself from financial stability concerns, in keeping with its existing strategy of enforcing market discipline. This strategy, however, proved to be problematic as a political inquiry into the regulatory failures that allowed the occurrence of the first bank run since 1866 showed

(Treasury Select Committee, 2008e). An inquiry which led the Treasury Select Committee and the British government to make explicit their expectation for the Bank of England to take responsibility for systemic factors such as liquidity, and that they would legislate to this effect.

Since New Labour's election in 1997, the British government had sought to depoliticise the question of financial regulation (and monetary policy). Financial stability was placed at one remove in the Financial Services Authority (and to a lesser extent the Bank of England) while theoretically coordination and influence were maintained through the Tripartite Authorities [TPA] structure. The public failure of Northern Rock signalled the end of this strategy. Financial practice and regulation became subject to public debate and parliamentary enquiry in late 2007 and early 2008 (Treasury Select Committee, 2008a, 2008e). Two key questions formed the foundations of this initial debate: who was to blame for the crisis? and what reforms were needed?

The Bank of England's response was first to externalise the blame by pointing to its lack of a formal mandate or tools for managing financial stability and the FSA's primacy in this area (Gieve & King, Treasury Select Committee, 2008g, Q9 & Q14). Then when pushed on its lack of action post-hoc to warn against the risks of moral hazard, instead it asserted that its role was to step in once a bank had failed and required lender of last resort support (Bank of England, 2007j).

In terms of reforms, the Bank of England was initially keen to maintain the separation between monetary stability and financial regulation as:

> I just do not believe that one institution — a central bank — can manage in today's world both monetary policy and the entire range of financial supervision. (King, Treasury Select Committee, 2008g, Q.90)

It would, thus, keep external to the Bank any potential conflict between the needs of the credit structure and the needs of money. Instead, it emphasised the lack of certain technical features, such as a resolution regime and coordination in the TPA, which had caused the crisis to become protracted, rather than the need for broader reform (King,Treasury Select Committee, 2008g, Q2).

The Treasury and the FSA, on the other hand, while acknowledging the role of regulatory oversight in allowing for the failure of Northern Rock (McCarthy, Treasury Select Committee, 2008g, Q271) also indicated the systemic problems of liquidity — the role of the Bank of England (Treasury Select Committee, 2008g, Q285–295, Q1753, Q1182–1845). Thus, a key reform was to clarify the financial stability role of the Bank of England alongside the technical reforms to bank resolution.

The parliamentary inquiries found largely in favour of the Treasury and the FSA: namely, the significant empowerment of the financial stability wing of the Bank as a full macroprudential authority alongside the formalisation of a process for bank resolution (Treasury Select Committee, 2008e, pp. 118–123). While the actual proposal for creating a full financial stability branch in the Bank of England, semi-autonomous from the broader bank and responsible for the FSA (Treasury Select Committee, 2008e, pp. 118–123), was rejected (Treasury Select Committee, 2008f), the principle that the Bank of England would have to accept responsibility for systemic stability was accepted (Tripartite Authorities, 2008c).

Thus, while the Bank of England sought to maintain its strategy of market discipline and price stability, unencumbered by financial stability concerns, the political authorities desired action and culpability. The debate thus turned from whether the Bank of England should have a financial stability mandate to what the mandate was to be. At the same time, the unwinding of the financial crisis was forcing the Bank of England to revise its market discipline strategy as the crisis transitioned from a crisis of liquidity to a crisis of money.

## The 2009 Banking Act

The second period saw the Bank of England seek to extract relative gains from the legislative process, simultaneously trying to minimise its responsibility and increase its relative powers. The Bank of England sought to gain the ability to direct the FSA, directly access institution specific information and activate bank "resolution" while only receiving a mandate that was directly tied to a specific target. Again, this failed, as the government sought to empower the FSA as the primary regulator and mandated the Bank of England to secure financial stability, broadly defined, with no additional powers. Meanwhile, the development of the crisis meant that the Bank of England was rapidly losing its ability to discipline the financial sector and was thus dependent upon successful supervision and regulation.

The main reform of the New Labour government was the 2009 Banking Act. While the core of the Act served to formalise the special resolution regime set out in the 2008 Banking (Special Provisions) Act, due to the presence of a sunset clause (Banking Act, 2009, 2(8)). The government, however, used it as an opportunity to solidify other

reforms identified in the aftermath of Northern Rock: namely, the inclusion of a statutory financial stability mandate for the Bank of England.

Thus while the Act began as a Tripartite discussion paper on deposit guarantees and bank resolution in October 2007 (Tripartite Authorities, 2007), it quickly developed into a full discussion on the regulatory architecture in January (Tripartite Authorities, 2008c) and July 2008 (Tripartite Authorities, 2008a, 2008b), before being presented to Parliament in November. Although this process focussed largely on the technicalities of depositor protection and bank resolution, there were two key points of discussion regarding the Bank of England: firstly, what was to be the Bank of England's broader role in maintaining financial stability? and, secondly, what was the role of the Bank of England once a bank had failed?

It is important to remember that these discussions were held prior to the major shift in Bank of England monetary operations in October to December 2008. In this period the Bank of England was still attempting to make market discipline bind in order to force private bank recapitalisation and dampen inflationary expectations. And so the Bank of England largely sought to minimise the risk of conflicting mandates by limiting the scope of any mandate while also enhancing the position of the Bank of England within regulatory debates and decisions.

Specifically, the Bank of England sought only to receive a mandate if it came with corresponding additional powers, and thus did not undermine its current operations:

> The key thing is not so much the general words; the key thing is to decide what powers, if any, the Bank of England should be given in this area. Once you have

> answered that question, I think we can find some words to describe it. (King, Treasury Select Committee, 2008d, Q43)

It also sought to enhance its powers over the FSA as part of its market surveillance and warning operations (NEDCo, 2008a) and with regards to bank resolution to gain the power to initiate the resolution process by declaring a bank insolvent as part of its role as lender of last resort (King, 2008a). In short, it sought to limit any reforms to simply increasing the power of its existing operations, or through the creation of a specific facility with a set goal independent of other operations.

The government, however, preferred to bind the Bank of England into taking a more proactive stance, while securing the FSA — a political flagship innovation (Darling, 2011) — as the primary financial regulator (Treasury Select Committee, 2008b). Thus, as the debate developed, the government intentionally chose to grant the Bank of England an ambiguous financial stability mandate (Pearson, House of Commons, 2008, Q33) to 'contribute to protecting and enhancing the stability of the financial systems of the United Kingdom' and that in doing so the 'the Bank shall aim to work with other relevant bodies (including the Treasury and the Financial Services Authority)' (Banking Act, 2009, 238 (1)). This was to be defined more clearly post hoc and agreed indirectly with the Treasury. This mandate would then form the guiding principle of the new Financial Stability Committee, which would then formulate a strategy and toolkit for achieving it (Darling, 2008b).

In terms of new powers, the Bank of England was again left wanting. The ability to initiate bank resolution was left to the FSA, which would then pass the administration of resolution on to the Bank of England, as the institution most familiar with banking

operations.[28] Meanwhile, the Bank of England did not gain any additional access to information about institutions prior to their failure. Although the Act formalised the right of the Bank of England to request information, the FSA would still have be satisfied by the request 'which would inevitably involve [the Bank of England] using political capital in some debates in order to obtain the data the Bank judged it needed' (NEDCo, 2009). The sole gain was limited additional powers of oversight and regulation of key payment systems (Banking Act, 2009, 185–206).

Thus, at the beginning of 2009, the Bank of England had been forced to abandon its pre-crisis strategy. Firstly, its focus on market discipline and arbitrage to limit the excesses of the credit structure was no longer viable, due to the immediate crisis of money as credit. Thus, it was forced both to set bounds on and to intervene in market processes through changes to the SMF and the launch of the APF[29]. Also, it was forced to abandon its strategy of placing at one remove financial stability concerns, due to the political implications of crisis for the state. It now had to develop a new strategy which would secure the future regulation of the credit structure and the credibility of the Bank of England as a monetary authority as:

> the Act and the debate around it would inevitably lead to an expectation that the Bank would now be more involved in discussions about financial institutions. However, it remained the case that the FSA alone would decide if an institution

[28] In any case other than immediate nationalisation or bankruptcy.

[29] See chapter six.

> should be put into the Special Resolution Regime. Up to that point the Bank would not have a single additional power. (NEDCo, 2009)

at a time when the Bank of England was reliant on a credible financial regulation and crisis resolution framework for securing the credit structure.

> So although the system continued to work through 2009 and 2010, the interests of all the authorities were aligned to ensure there weren't future crises. It didn't really resolve the issues of a) who was really in charge in a crisis and b) whether the Bank of England could instruct the FSA, or at least they weren't resolved to the Bank of England's satisfaction (Interview, Macpherson, 2017).

This was compounded by the continued loss of credibility in the FSA as a financial regulator (BBC, 2009; *Financial Times*, 2009a, 2009b; *The Telegraph*, 2009; see also Treasury Select Committee, 2009c). Thus, as 2009 developed, the Bank of England was increasingly at odds with the British government over the direction of both systemic reforms and the detail of banking regulation, as it sought to establish itself as a financial stability actor. This debate, however, was again more straightforwardly political, with the New Labour government's strategy coalescing around the FSA's Turner Review and the opposition Conservative Party's around the alternative Sassoon Review, limiting the scope for the Bank of England to shape the debate

## Turner and Sassoon Reviews

The 2009–10 period thus saw the Bank of England openly discontented with the existing reforms and the solidification of a strategy that would embrace financial stability obligations. This was done by attempting to lever the new Financial Stability Committee and the statutory mandate to impact the regulatory debates. The government, however,

continued to regard the FSA as the primary regulator, while its credibility as such came into question and the opposition Conservative Party adopted a tactic of blaming "Gordon Brown's FSA" for the crisis (Interview, Macpherson, 2017). So the future of the regulatory architecture was thus largely a political issue determined by the 2010 election, but a debate in which the Bank of England sought to position itself and develop a coherent new strategy as a macroprudential regulator.

2009 to 2010 saw the direction of financial regulation develop around the questions of exactly what systemic or 'macroprudential' regulation would entail and the potential redesign of the regulatory architecture. Both of these questions were critical to the Bank of England, as it was now highly exposed to corporate and sovereign debt markets due to the APF and had received a statutory financial stability mandate with few powers to utilise outside of its money market operations. However, the crisis had also meant that there was opportunity for more sweeping reform than that conducted by the 2009 Banking Act. The range of actions taken by the Bank of England and the Treasury to stem the crisis had called into question the separation of powers and thus the new roles of the FSA, Bank of England and the Treasury (Gieve, 2009)

This broader question of the role of the Treasury, Bank of England and FSA was to be conducted, however, in the shadow of an election in 2010. In the build-up to this, the government commissioned a review by the new Chairman of the FSA, Adair Turner, to propose a path forwards for UK regulation (Financial Services Authority, 2009), published in March 2009. Meanwhile the opposition Conservative Party commissioned their own review by James Sassoon, a former senior Treasury Official, to formulate an alternative proposal (Sassoon, 2009) which was published a week prior. Both then became formal party policy as the government published its white paper on financial

stability (HM Treasury, 2009e) in July, matched by an opposition alternative white paper (Conservative Party, 2009).

**The Turner Review**

The focus of the Turner Review was on the regulatory failings that resulted in the crisis and the appropriate action to be taken by the authorities to prevent future banking crises (Financial Services Authority, 2009, p. 5). Its proposals largely revolved around a need for a more systemic approach to financial regulation and higher, counter-cyclical, capital and liquidity requirements as well as the potential introduction of maximum liquidity ratios (Financial Services Authority, 2009, pp. 61–79).

These new regulations and tools were positioned as naturally sitting with the FSA as the regulator. The Bank of England's macroprudential role was, in contrast, largely positioned as conducting analysis and the 'ultimate arbiter of judgements relating to the position in the economic cycle and the definition of macro-prudential risks' (Financial Services Authority, 2009, p. 84). Any action to be taken on these judgements would be by the FSA. Whether the Bank of England could instruct the FSA to act in a disagreement was left open, with the Treasury posited as a final arbiter in disagreement through the TPA structure. The preferred option for the FSA, however, was that the Financial Stability Committee would be a joint committee between the Bank of England and the FSA, which would collectively decide on macroprudential issues (Financial Services Authority, 2009, p. 85).

In short, the proposals of the Turner Review were to continue on the established path of the Banking Act by empowering and reforming the approach of the FSA, while leaving the Bank of England with the responsibility for assessing systemic risks, but only

the power of voice in changing them. While this may have been a desirable outcome for the Bank of England a year earlier, as it continued the strategy of externalising the operational responsibility for financial stability, the events of 2008 meant that this was no longer adequate. The Sassoon Review, however, offered a clear alternative.

**The Sassoon Review**

Whereas the Turner Review took as given the existing institutional arrangements, the Sassoon Review took these as its primary subject of enquiry (Sassoon, 2009, p. 3). Coming to broadly similar conclusions about the reforms to the regulatory toolkit (Sassoon, 2009, p. 32), the Sassoon Review instead focussed on the systemic regulatory failures of the FSA, the Bank of England and the Tripartite system (Sassoon, 2009, pp. 23–26). Its conclusion was that the Bank of England should be significantly empowered as the primary macroprudential regulator and the FSA significantly reformed, or even abolished, in favour of a system that separated prudential and conduct regulation (Sassoon, 2009, pp. 19–22).

While the review was critical of the lack of action by the Bank of England prior to the crisis and its strategy of downsizing its financial stability operations, it did recognise that the Bank of England had spotted the systemic flaws that underpinned the crisis (Sassoon, 2009, p. 31). Thus, like the Turner Review, the Sassoon Review recommended that the Bank of England assume a much more expanded role in analysis of systemic financial stability concerns. Unlike the Turner Report, however, it recommended that the Bank of England be given powers over the FSA: namely, the statutory right to instruct the FSA to provide it with information relating to its macroprudential work (Sassoon, 2009, p. 42); to take the lead on all international

negotiations on macroprudential regulation; to be given control over any systemic countercyclical capital or liquidity tools; and the establishment of an exchange of open letters where at least twice a year the Bank of England would state its opinion on the stability of the financial system to which the FSA must respond with what action it was taking.

The Sassoon Review also recommended significant reforms to the structure and practice of the FSA: that the prudential and conduct operations should be separated, so that the prudential component would liaise directly with the Bank of England. This would potentially take the form of empowering the Bank of England to direct the FSA on prudential concerns or the separation of the prudential wing from the FSA into the Bank of England (Sassoon, 2009, p. 60).

This approach to the structural reform of the financial architecture and the empowerment of the Bank of England as a regulator essentially replicated key parts of the Bank of England's policy stance. The subsequent narrative of the Bank of England was to repeatedly focus on the disunity between the macro and micro elements of supervision (King, 2009a); the lack of a firm macroprudential toolkit (Bean, 2009), which, if implemented as a precautionary tool, should fall under the purview of the Bank, given its already existing mandate and expertise in market management (Tucker, 2009c); and thus the need for systemic reform of the regulatory system. The Governor went so far as to declare that '[t]he Bank finds itself in a position rather like that of a church whose congregation attends weddings and burials but ignores the sermons in between' (King, 2009g; see also Treasury Select Committee, 2009h, ev.306). It effectively rejected the notion that the Bank of England's role should be restricted to analysis and voicing concern

— it was ‘a naked attempt to wrest powers from the FSA. … it was a direct challenge to government policy, and therefore to me’ (Darling, 2011, pp. 254–255).

At the same time, the FSA was steadily losing credibility as a regulator. The failure of the Dunfermline Building Society in March 2009 proved the new resolution regime to be effective (Interview, Darling, 2017; Macpherson, 2017) but attracted a damning report from the Parliamentary Select Committee (House of Commons Scottish Affairs Committee, 2009). Meanwhile, the Bank of England’s response to the events of autumn 2008 and lack of prior mandate had effectively insulated it from bearing the blame for the bank failures of 2008 (see Treasury Select Committee, 2009b). Thus, the debate focussed instead on the regulatory failures of the FSA. This constellation of events was seized on by the Conservative Party when it published its white paper on financial stability reform.

**The White Papers**

In July 2009, both major political parties formalised their stances on regulatory reform by publishing white papers, which served as the foundations of their eventual stances a year later. The government’s essentially followed that proposed by the Turner Review. The Conservative Party’s built on the Sassoon Review by directly attacking “Gordon Brown’s FSA” as the primary culprit for the crisis. The Conservatives’ proposal was instead to:

> abolish the FSA and the failed tripartite system and create a strong and powerful Bank of England with the authority and powers necessary to ensure financial stability. (Conservative Party, 2009, p. 4)

This would involve the creation of a Financial Policy Committee to mirror the Monetary Policy Committee, which would have responsibility for directing the new Financial Regulation Division of the Bank of England (Conservative Party, 2009, pp. 24–28). The Bank of England would also thus receive responsibility for capital and liquidity regulation with an enhanced toolkit. In essence, this applied the full range of reforms recommended by the Turner Review but placed them all in the Bank of England, in keeping with the most radical proposals of the Sassoon Review (Conservative Party, 2009, pp. 30–36). This was all constructed as an intentional political attack on the current government and served to place the blame for the crisis on the regulatory system implemented in 1997–2000.

These proposals, however, went beyond those advocated by the Bank of England, which was still wary of taking on complete responsibility for financial stability (Conaghan, 2012, pp. 44–48). However, the debate was no longer one of regulatory preference or 'best practice' but of electoral politics and statecraft. The Labour Party sought to defend its regulatory legacy by continuing to empower the FSA in the 2010 Financial Services Act and in its election manifesto (Labour Party, 2010). Meanwhile, the Conservative Party sought to leverage the perceived mismanagement of the crisis by the TPA, and in particular the FSA, to press the attack in its own manifesto (Conservative Party, 2010).

The common ground of these two approaches, however, was that the Bank of England would be the body primarily responsible for macroprudential policy. The debate was over what this meant in terms of power. As it became clear that the architecture was to be decided at the polls in May 2010, the Bank of England shifted its focus to the content of the new regulatory regime.

With the loss of its capacity to use market discipline as a credible regulatory tool in October 2008, the Bank of England now sought to use more traditional regulation to regulate the credit structure. Public speeches from July 2009 shifted towards the question of 'too big to fail' (King, 2009h) and the appropriate levels of capital and liquidity requirements (Alessandri & Haldane, 2009; Tucker, 2009a), as well as the need for change in banking governance and structures towards a more stable format (Haldane, 2009). This culminated in November 2009 with the Bank of England's own take on the macroprudential debate (Bank of England, 2009q), which served as a foundation for its further national and international discussions.

This push towards more stringent capital and liquidity requirements, as well as the need to restructure banking to prevent 'too big to fail' (King, 2009g; Treasury Select Committee, 2009c, Q113, Q125–7), potentially by ring-fencing activities (Bank of England, 2009n, p. 55; Haldane, 2010), can clearly be seen as an attempt by the Bank of England to leverage its new mandate and traditional role to guarantee, regardless of the results of the 2010 election, both its prominence in regulatory debates and that any new regulation would be sufficient. In particular, the assault on structurally significant, or "too big to fail", banks and the contagion between speculative banking and retail banking can be seen as an attempt to pave the way towards a return to market discipline by establishing a system where some banks could fail by separating the higher risk activities from the production of money as credit. It is this approach that served as the foundation for the Bank of England's new regulatory agenda with the return of a Conservative-led coalition in 2010.

## The 2012 Financial Services Act

The election of a Conservative-led coalition in May 2010 largely determined the fate of the regulatory architecture for the UK. The reforms proposed in the white paper in 2009 were passed into law in the 2012 Financial Services Act. Having won the election with a clear mandate for structural reform, the Conservative-led coalition now had to reconcile their proposal with the practicalities of financial governance. There was the contentious question as to how the Chancellor and the potentially over-mighty Governor would relate to one another. Would the Bank of England have to accept more Treasury authority in exchange for its increased powers?

The proposed reforms were largely in keeping with the white paper a year earlier. The difference was that The FSA was to be dissolved into a Prudential Regulation Authority [PRA] and a Consumer Protection and Markets Authority (later renamed the Financial Conduct Authority [FCA]) rather than into a new division of the Bank of England. The PRA would then be a subsidiary of the Bank of England, while the FCA was to be independent under the supervision of the government, but still accountable to the FPC on certain tasks (HM Treasury, 2011b, p. 6). This decision, while welcomed by the Bank of England, as it kept some separation between itself and any future bank failures, was largely due to the technical difficulties of merging the pay scales and benefit packages of the FSA and the Bank of England, as they had diverged significantly (Interview, Macpherson, 2017). The FPC, as part of the Bank of England, would still form the centrepiece of the system as the supervisory and discretionary body responsible for financial stability as a whole (HM Treasury, 2011b, p. 18).

Initially the Chancellor sought to use this opportunity both to externalise the responsibility for financial stability and to gain influence over the Bank of England by placing himself as the Chair of the Bank of England's Financial Stability Committee. However, keen to avoid conflict with the Governor and to develop a positive working relationship, the Chancellor backed down due to Bank or England resistance (see Hungin & James, 2018). The formal consultation launched in July saw the responsibility for financial stability sit with a new Financial Policy Committee, which mirrored the structure of the Monetary Policy Committee (HM Treasury, 2010b).

Instead, the Chancellor opted for a statutory Memorandum of Understanding between the Bank of England and the Treasury to be established separately from the legislative reforms (HM Treasury, 2011b, p. 40), and the requirement for more public hearings on the topic of financial stability under the Treasury Select Committee system and private meetings with the Chancellor (HM Treasury, 2011b, pp. 31–33).

Critically, the Memorandum of Understanding established that the Bank of England would have complete autonomy until public funds were put at risk. This included the provision of Emergency Liquidity Assistance, such as that provided to Northern Rock. As soon as *any* public funds were put at risk, the Treasury would have the power to direct the Bank of England to provide systemic or institutional liquidity support, as determined by the Treasury, or to implement a particular bank resolution plan (HM Treasury, 2013a). In essence, once a crisis required action beyond already established Bank of England facilities, the Treasury would assume control, which was seen as a significant win for the Chancellor (Interview, Macpherson, 2017).

Meanwhile, the actual powers of the FPC, other than the ability to direct the PRA and the FCA on matters of financial stability, were to be decided separately. The provision in the Financial Services Act was that any powers would be provided by statutory instruments. (HM Treasury, 2010a) The clear intention, however, was that the FPC would largely inherit the discretionary tools developed in the ICB and the Basel III negotiations (HM Treasury, 2010b; 2011b, p. 40). This allowed the technicalities of policy to be developed separately from the political debate over the regulatory architecture.

Thus, the passing of the 2012 Financial Services Act represented a minor victory, given the political context, for the Bank of England. For it had been able to secure significant increases in its power to regulate the credit structure but with only marginal losses in autonomy. The Bank of England was now able to push for whatever tools it wanted as part of its macroprudential strategy. Meanwhile, the supervision of specific institutions was left at arm's length in the PRA and the FCA, which had their own governance and accountability structures. However, this victory was again largely due to the political position of the state vis-à-vis the Bank of England. It was the conflict-adverse Chancellor who allowed for the continued autonomy, and the technical difficulties of pay which left the PRA as a separate organisation. In contrast, the development of the content of the new regulations was largely delegated to external authorities, allowing the Bank of England both to exercise more influence and to establish more firmly its regulatory strategy.

## VII.ii. The Macroprudential Toolkit

As Baker (2013) notes, the notion that what was missing from the pre-crisis regulatory toolkit was a systemic or macroprudential approach was quickly identified, but lacked

content. Within the UK context, this meant that, while the political debates dominated over the regulatory architecture, forcing the Bank of England to take an increasingly broad financial stability mandate, the content of this mandate was delegated to external arenas. Thus, despite fighting the election on the mandate of tackling financial excess and the regulatory failures of the crisis (Conservative Party, 2010, p. 29; Osborne, 2010b), the strategy adopted by the government once elected was to delegate this task to external bodies (Johal et al., 2012). Nationally this took the form of the Bank of England's Interim Financial Policy Committee, set up by the request of the Treasury in February 2011, and the Independent Commission on Banking [ICB]. However, the core reforms were developed at the international level at the Basel Committee on Banking Standards and the Financial Stability Board (Interview, Turner, 2017).

Within this, the Bank of England was able to position itself as something of a nexus point. Since mid-2009, the Bank of England had been steadily increasing its capacity as an advisor on financial stability matters. In particular, it has remained a key actor in the international regulatory debates since 1997, and had adopted a strategy of limiting legislation to the terms agreed in the international fora within which it was present (Interview, Gieve, 2017). It was thus a key negotiator, alongside the FSA, at the Basel III negotiations and a founding member of the Financial Stability Board alongside the Treasury and the FSA. Thus, with the formation of the Interim FPC in 2011, comprised of senior FSA officials, Bank of England officials and four external members appointed by the Treasury (HM Treasury, 2011b, p. 7), the UK's strategy was congealed within the Bank of England. In a similar manner, while the ICB's membership was constructed to reflect the political needs of the coalition partners and their respective commitments (Interview, Macpherson, 2017), it drew its secretariat of 14 from the Bank

of England, the Treasury, the Financial Services Authority, the Department of Business Innovation and Skills and the Office for Fair Trading (Vickers, 2011). This allowed the Bank of England to wield some influence in an otherwise relatively closed process.

That being said, these arenas only had the power to recommend policy changes: these would then have to be transposed into legislation. Thus, while the Bank of England was not dominant in any of these arenas, it could leverage its posting within them to shape the national discourses and policy process. In doing so, the Bank of England developed a strategy towards macroprudential regulation that sought first to separate the question of price stability from the question of financial stability (Bank of England, 2009q, pp. 10–11); then to develop a series of regulations that would secure the stability of the credit structure and insulate the production of money from the risks of wholesale finance. This was to be achieved through structural reform of the banking sector; higher and countercyclical capital requirements; compulsory liquidity ratios; and leverage ratio limits (Financial Policy Committee, 2011b). Specifically, it demanded a tough regulatory stance on core banking activities.

Several of these moves were heavily opposed by key actors in the City of London, to which the Bank of England paid relatively little heed. Thus, in contrast to much of the political economy literature on the Bank of England, which posits the Bank of England as an advocate for UK financial interests (Engelen et al., 2011; Goodhart, 2009; Solomon, 1995), these reforms appear to be a deviation from this role. This section argues that this shift is not simply the ideational rejection of banking narratives by regulators (e.g. Bell & Hindmoor, 2015b, 2017), although this is clearly important. Instead, it presents the case for understanding these reforms as based on the Bank of England's relationship to the production of money as credit, within which the City of London plays an important but

not determining role (Ingham, 1984). Thus, the regulatory shift was an attempt to secure the credit structure and the production of money as credit, as it abandoned its market discipline strategy. In short, the ideas changed because the problems faced had changed, forcing a search for a new strategy. This took the form of increased liquidity insurance for financial institutions and money markets, but at the same time tougher regulations and a more discretionary approach to supervision and regulation.

## Ring-Fencing

The Bank of England had been relatively positive about the idea of structural reform of the banking sector since 2009 (Bank of England, 2009n, 2009q), especially as a way of reducing the risk of too big to fail and the reality of implicit guarantees to structurally critical financial actors, such as deposit taking banks (Treasury Select Committee, 2010c, ev. 25–6). The Governor even appeared to advocate a complete separation of retail and investment activities (King, 2010a) with the Executive Director for Financial Stability actively advocating it (Haldane, 2012b).

Thus, when the ICB recommended a relatively 'high' ring-fence separating the retail and wholesale banking operations within banking groups (Independent Commission on Banking Standards, 2011, pp. 54, 69–75), the Bank of England was broadly positive (Bailey, 2012). This would essentially separate 'the domestic-intermediation part of banks' activities from the entrepôt, wholesale business centred in the City of London' (Tucker, 2013). This would stabilise the production and reproduction of credit money, as it would require more stringent capital, liquidity and leverage restrictions on those institutions that produced money for the broader economy and reduce exposure to international shocks (Bank of England, 2011c, pp. 54–56). The primary concern on the

part of the Bank of England was that the ring-fence be constructed in such a way that it would not be undermined by regulatory capture but would be enforced through legislation (Parliamentary Commission on Banking Standards, 2012, Q1144–1152), not on the banking sector's outcry against this reform as inhibiting their business and damaging the City of London's position (Barclays Plc, 2011b; Standard Chartered, 2011; TheCityUK, 2011).

Despite initial signals that the Chancellor was tempted to delay reforms to the UK banking sector (*Financial Times*, 2011a), political pressure from the Liberal Democrat coalition partners and the opposition saw the ICB report "accepted in full" (*Financial Times*, 2011b) with a few minor amendments (HM Treasury, 2011a). This in turn formed the foundation for the 2013 Financial Services (Banking Reform) Act, which required the separation of deposit taking institutions from proprietary and wholesale trading operations by 2019. This move has remained firmly defended by the Bank of England's Financial Policy Committee (Taylor, 2015) and Prudential Regulation Authority (Bailey, 2012, 2016).

## Liquidity Ratios

The significant structural reform of ring-fencing was complemented by a broader range of international reforms stemming from the Basel III agreements in 2010 and 2013. One of the key reforms of Basel III was the introduction of a liquidity ratio, whereby banks would be expected to meet liquidity requirements. The liquidity coverage ratio required banks to hold enough high-quality liquid assets to cover their forecast funding needs for the next 30 days, which would serve as a countercyclical buffer by setting a minimum for liquidity self-insurance. Meanwhile, the Net Stable Funding ratio was aimed at changing

the funding structures of banks away from short-term money markets (Basel Committee on Banking Supervision, 2010a, pp. 8–10). This was a significant step away from the previous Basel II agreements, which only required a minimum standard of capital to the be held against the "risk weighted assets" of a bank's balance sheet (Basel Committee on Banking Supervision, 2004). But broadly speaking it was one welcomed by the banking community (Goldman Sachs, 2010; HSBC, 2010; RBS Group, 2010; Santander, 2010), although there were some key dissenting voices (Citi Group, 2010; JP Morgan Chase, 2010; Standard Chartered, 2010).

The introduction of more liquidity regulation was also a consistent feature of the Bank of England's regulatory strategy. Liquidity and funding risk from maturity mismatch was seen as one of the key causes of the crisis (Financial Policy Committee, 2011b, p. 8), which the Bank was now mitigating through the APF and the reforms to the SMF. Thus, the development of a mandated liquidity buffer on banking balance sheets would limit the risk of large liquidity risks being absorbed by the Bank of England in crisis (Tucker, 2009c), thereby mitigating the potential moral hazard of public liquidity insurance.

This was also posited as a potentially discretionary buffer, allowing the FPC to increase and decrease the level of self-insurance that financial institutions were required to take at various points in the cycle (Bank of England, 2009q, p. 19). So, while there was no formal liquidity tool added to the FPC in the initial consultation, due to the difficulty in establishing a measure, it was seen as an important future addition (Financial Policy Committee, 2012b, pp. 8–9). In the meantime, the FPC sought to use its power of advice and recommendation to shape how the regulators and banks were using the buffer (Financial Policy Committee, 2012d, pp. 9–10; 2013a, pp. 8–9), advocating its drawdown

by banks in the wake of the Eurozone crisis to ease their liquidity constraints (Financial Policy Committee, 2012d, pp. 9–10), as fears mounted that banks were over-insuring and thus creating a shortage of market liquidity (Financial Policy Committee, 2012a, pp. 5–6). In doing so, the Bank of England was beginning to develop its more discretionary approach to financial regulation by shaping regulatory pressures and guidance in order to invoke specific responses from the banking sector. This approach was more firmly solidified with the reforms to bank capital and the development of the initial discretionary toolkit.

## Capital Requirements

The core of the post-crisis reforms, however, has been significantly increased capital requirements. These have taken two forms: a series of static requirements largely laid out in Basel III and a set of discretionary controls designed to impact the credit cycle, although the FPC sought to have the systemic reforms embedded in legislation, only taking control of tools 'suited to targeting systemic risks that varied over time' (Financial Policy Committee, 2012b, p. 3). The perceived inadequacy of Basel III by UK regulators and the complexities of its implementation in EU law have seen the Bank of England, through the PRA, take an active and time-variant role in setting base capital requirements. Thus the development of the Pillar 2 capital requirements and the macroprudential toolkit has been one of the areas in which the Bank of England was most active in shaping the new regulatory regime.

### Systemic Requirements

The Bank of England's diagnosis of the crisis was from the beginning that it was a crisis of undercapitalisation. This remained the central issue of the Bank of England's post-

crisis regulatory strategy. While the changes to the money market operations had been able to ease funding and liquidity constraints, the problem of undercapitalisation relied on banks either taking action proactively or in response to regulatory requirements. Thus, increased capital requirements and the ability to vary them over time to shape banking activity and risk taking was the central policy point of the Bank of England's strategy (Bank of England, 2009q; Financial Policy Committee, 2011b). Indeed, the primary activity of the interim financial policy committee was to use its power of voice and advice to both secure higher legislative capital requirements (Financial Policy Committee, 2011b, 2012b) and to push the FSA to require banks to increase their core capital either through retained earnings or by issuing more shares (Financial Policy Committee, 2011a, 2011c, 2012a, 2012c, 2012d, 2013d).

Thus the Basel III accord was a key regulatory step for the Bank of England. Basel III built on Basel II, but sought to remove the pro-cyclicality of its implementation, which saw banks forced to de-leverage as their assets were revalued, further driving down their value (see Kashyap & Stein, 2004). At the same time, it sought to narrow the range of capital accepted to predominantly common equity capital [CET1] with a smaller allocation for other Tier 1 capital [T1] and Tier 2 subordinated debt [T2]. This core requirement was complemented in 2011 with an agreement by the Financial Stability Board that Global Systemically Important Banks would have to carry an additional 2.5% of common equity. These would be held against the Risk Weighted Assets [RWA] of the bank's balance sheet (Basel Committee on Banking Supervision, 2010a, p. 12). This core requirement was then complemented by two countercyclical components. Firstly, all banks were expected to build up a 2.5% CET1 capital conservation buffer which could be drawn down under stress conditions, with a requirement to rebuild it from reduced

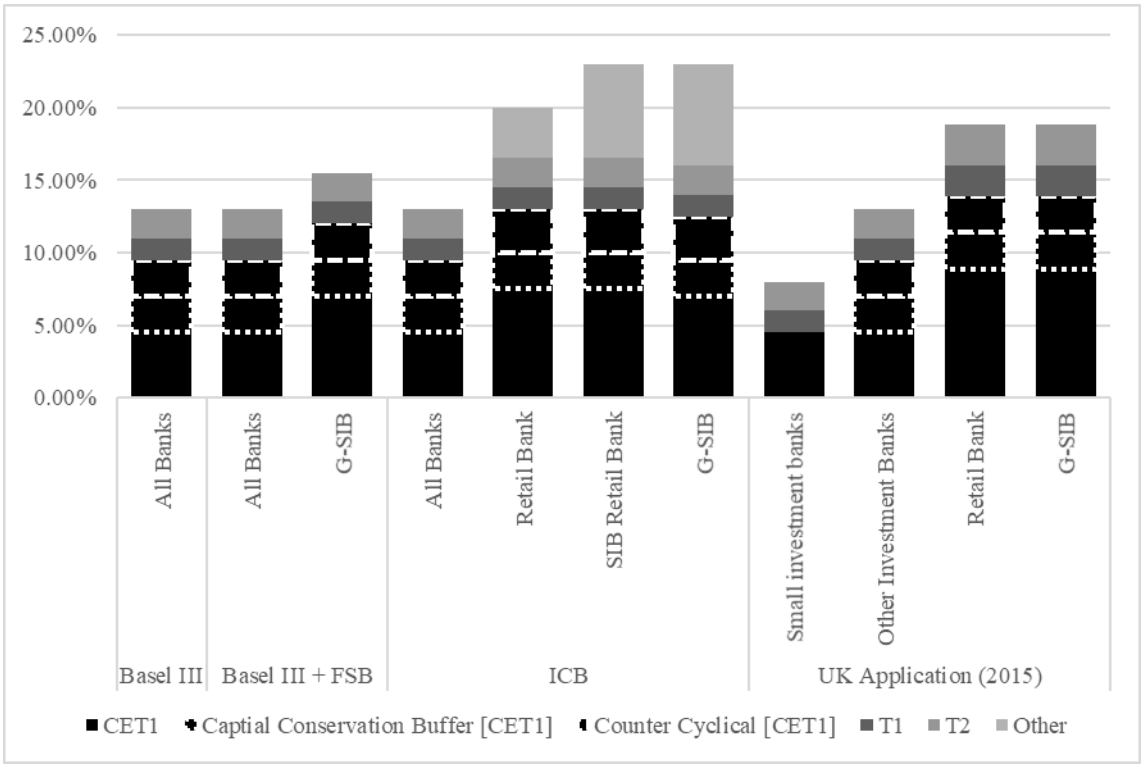



*Figure 35. Proposed UK capital frameworks (Capital Tiers as % of Risk Weighted Assets)*

distributions to shareholders (Basel Committee on Banking Supervision, 2010a, pp. 54–57). This static buffer could then be increased through a discretionary countercyclical capital buffer of 0–2.5% CET1 in order to regulate credit (Basel Committee on Banking Supervision, 2010a, pp. 57–60).

This limited move to higher capital requirements was broadly accepted by the British banking community, the exception being the Lloyds Banking Group (2010). However, the Bank of England considered them inadequate (King, 2010a) and sought to expand them further through their transposition into UK law. The ICB held a similar view, stating that 'In sum, the Commission believes that the Basel baseline is by some margin too low' (Independent Commission on Banking Standards, 2011, p. 27).

The ICB proposal was first to treat the ring-fenced retail banks in the same manner as globally systemically important banks [G-SIBs], requiring them to hold an additional

3% CET1 ‘ring-fence surcharge’ in lieu of the G-SIB surcharge. Both G-SIB and retail banks would then also be required to carry an additional 3.5–4% of capital that could be drawn down in crisis, potentially in the form of ‘bail-in bonds’, allowing regulators to trigger conversion from debt to equity under stress. Finally, to be considered structurally important all banks would be required to carry up to an additional 3% of this extra tier of capital, depending on the extent of their systemic importance (Independent Commission on Banking Standards, 2011, pp. 120–122). In total, this increased the capital requirement for retail and systemically important banks by 50% (see Figure 35). These levels of capital were broadly rejected by the British banking community, as risking both their ability to extend credit and their international competitiveness by deviating from international standards (Barclays Plc, 2011b; British Bankers’ Association, 2011; HSBC, 2011; Standard Chartered, 2011).

This approach of distinguishing between the international and domestic orientated banking sectors was a key part of the ICB proposals and one welcomed by the Bank of England (Bank of England, 2011c, pp. 54–56). If applied, this would have seen those banks with systemic importance, either due to global impact or their role as monetary authorities, become significantly more stable with a limited impact on the global presence of the City of London. However, the process of applying new capital requirements, unlike ring-fencing, was inhibited by EU law, which would take primacy in transposing the Basel recommendations.

This took the form of Capital Requirements Directive [CRD] IV and the Capital Requirements Regulation, both of which sought to water-down, rather than increase, the Basel recommendations, to favour French and German banking practices (Howarth & Quaglia, 2013). Crucially, the Commission sought to impose “maximum harmonisation”

in this area, which would prevent the UK from going further than the minimum set by Basel III. This was a significant concern for the interim Financial Policy Committee (2011b, p. 11; 2012b, p. 4; 2013a) and the Bank of England (King, 2011b), which was not the primary negotiator but instead reliant on the Treasury, which shared a similar view (Osborne, 2011c).

The result of the CRD negotiations was mixed. While the definitions of capital were weakened to allow for German and French variations of banking, the UK was able to extract the ability to increase its national capital requirements[30]. Specifically, under Pillar 2 of the Basel framework, national regulators would be allowed to impose higher capital requirements on banks under their supervision (HM Treasury, 2013b, 34). This meant that the power to vary the core capital requirements sat directly with the FSA/PRA at an institutional level as the supervisor. This was then overseen at a strategic level by the FPC (Bank of England, 2014d; Financial Policy Committee, 2015d).

The subsequent strategy largely followed the proposals of the ICB by de facto grouping ring-fenced banks with G-SIBs and imposing higher capital requirements on them, plus setting systemic targets for core CET1 capitalisation at 9.5% plus conservation buffers (Financial Policy Committee, 2015d, pp. 12–16). Meanwhile, the Bank of England also sought to continue to secure the position of the City of London by allowing investment firms to hold only the Basel III minimum, even waving the conservation and countercyclical buffers for those considered to have no systemic impact by the FCA (HM Treasury, 2014). The result was an approach which fell short of the ICB proposals

[30] See James (2016) for a full account of the negotiations.

(Vickers, 2016), but was still significantly higher than that desired by the banking community (British Bankers' Association, 2015).

**Dynamic Requirements**

The other main innovation of Basel III was the introduction of a discretionary 'countercyclical capital buffer'. This would allow the appropriate authority to impose an additional countercyclical CET1 buffer of up to 2.5% against all RWA, which would operate in a similar manner to the capital conservation buffer. This approach, however, was seen as deeply problematic by the Bank of England.

In fact, the headline approach had been rejected by the Bank of England's initial discussion paper on macroprudential tools. This was because simply adjusting the headline rate would force banks to make allocation decisions between different sectors. If there was a bubble growing, this could cause an acceleration of the bubble as banks divested from stable but lower return sectors into the problem sector (Bank of England, 2009q). Thus, the central proposal of the interim FPC was the inclusion of the ability to direct the PRA to apply a sector specific capital surcharge of up to 2.5% on financial assets (Financial Policy Committee, 2012b, pp. 4–6). The proposal was readily welcomed by the Treasury, which had adopted a stance that the Bank of England could have what it wanted in terms of regulatory tools (Interview, Senior Treasury Offical, 2017). Thus, the first tool granted to the FPC when it became fully active in 2013 was the ability to direct the PRA to set sector specific capital requirements (Bank of England, 2014d).

The countercyclical buffer was introduced later as part of European level agreements to coordinate macroprudential regulation (HM Treasury, 2014). Under these agreements, the countercyclical "headline" buffer would be reciprocated across the EU

to prevent foreign banks becoming substitutes for constrained domestic banks (Basel Committee on Banking Supervision, 2010b, 2014b; European Systemic Risk Board, 2015). Thus, if the UK raised its countercyclical buffer, all EU banks would take on increased capital requirements on UK assets and vice versa. So the countercyclical buffer would be used to target disconnections of broad credit growth in relation to the economy as a whole — measured as a ratio of credit to GDP, while the SCRs would be used as part of targeted interventions to curb asset bubbles (Bank of England, 2014d).

## Leverage Ratios

The final tool recommended by the interim FPC was the introduction of a leverage ratio (Financial Policy Committee, 2013d, p. 7). In contrast to the capital requirements, which were determined as a ratio of RWA, the leverage ratio was set as a hard maximum ratio between the size of the bank's balance sheet and its T1 capital. The inclusion of this in the Bank of England's toolkit and eventually as part of the Basel agreements was seen as a key victory by the Bank of England's financial stability division.

Alongside the belief that Basel III did not go far enough in terms of capital requirements, the Bank of England and the FPC were also sceptical of the method of calculating the WRA against which the capital levels were set (Financial Policy Committee, 2011c, p. 9). The Basel accord was configured for these to be set by models constructed by banks and approved by the regulator. The result was an increasingly divergent and complex set of models utilised by different banks, which resulted in radically different outcomes in terms of capital requirements (Financial Policy Committee, 2012c, pp. 5–8). This potential for gaming and the inconsistency of the associated capital levels led the Director for Financial Stability to advocate the use of simpler models of

measuring risk exposure that could be easily calculated and thus avoid the social cost of complex calculations, regulatory negations and arbitrage (Bank of England, 2009n, p. 48; Haldane, 2014).This approach was endorsed by the FPC, which discussed two potential solutions: the ability to set minimum margin requirements on transactions (Financial Policy Committee, 2012b, p. 9) and the ability to set a maximum leverage ratio (Financial Policy Committee, 2012b, p. 7; 2013d, p. 7). The latter had seen significant support from other quarters and formed the third part of the FPCs toolkit.

While the idea of a maximum leverage ratio of 33× had been agreed in principle at Basel III, this was left open to further consultation (Basel Committee on Banking Supervision, 2010a, pp. 60–61). The exact conditions of the leverage ratio, however, were ambiguous. Within the UK debate, the notion of a leverage ratio had long been established as a key reform (Bank of England, 2008g, p. 44; Financial Services Authority, 2009, pp. 68–69; Treasury Select Committee, 2010b, pp. 30–33). The ICB had again declared the Basel level insufficient and instead proposed a ratio of approximately 25× for banks required to hold higher levels of capital due to their systemic importance (Independent Commission on Banking Standards, 2011, pp. 98–99), an approach and level supported by the Bank of England (Haldane, 2012a).

Thus when the Basel Committee formally reported in 2013 with a more detailed version of the initial recommendation (Basel Committee on Banking Supervision, 2014a), the Bank of England had already requested that banks publicly declare their leverage ratios (Financial Policy Committee, 2011c) and formally set limits for systemically important banks (Prudential Regulation Authoirty, 2013), as well as having begun the development of a national framework that would apply the Basel recommendations in a manner in keeping with the ICB model (Bank of England, 2013b, pp. 69–70).

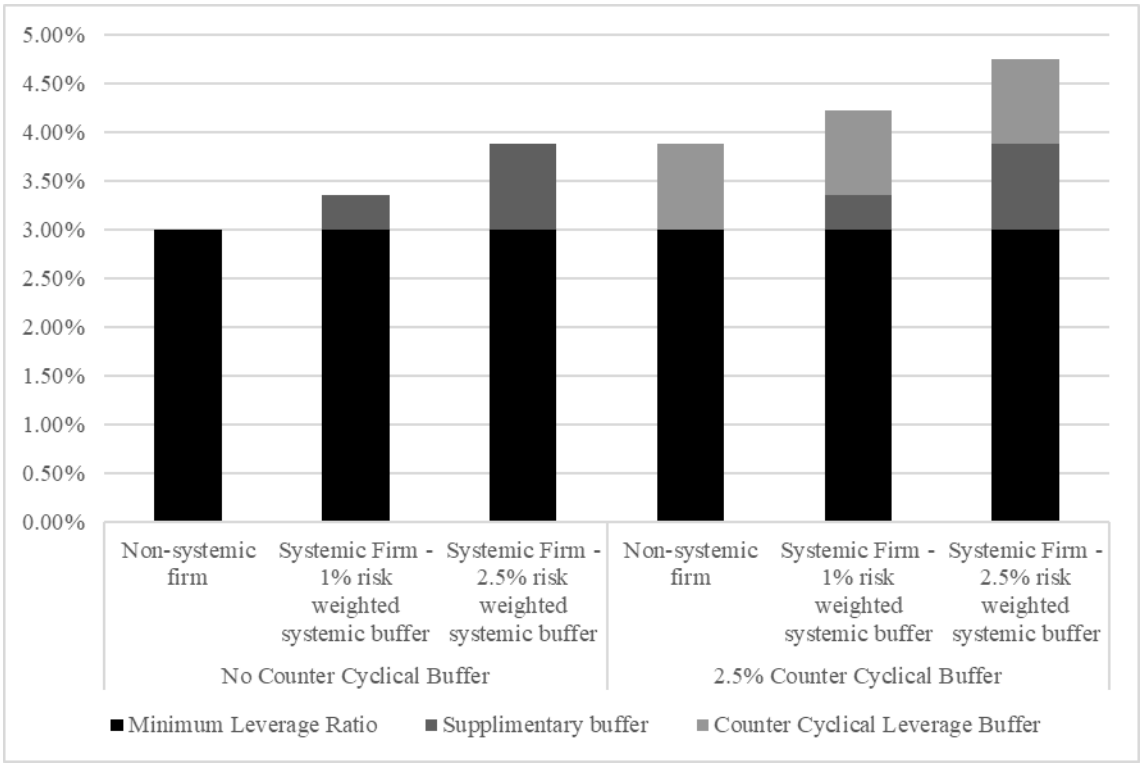



*Figure 36. UK leverage ratios as a % of T1 capital to total assets (Bank of England, 2014e, p. 19)*

The approach adopted was that initially the systemically important but eventually all banks would have to adopt a minimum 3% leverage ratio of Tier 1 capital[31] to all assets plus variable supplemental and countercyclical leverage ratios (see Figure 36). These were calculated as a percentage of the systemic and countercyclical capital surcharges and set by the FPC (see Financial Policy Committee, 2014b). Thus the leverage ratio would automatically move with the countercyclical buffer, or independently as the FPC adjusted the surcharges (see Bank of England, 2015c), which were initially set at 35% (Financial Policy Committee, 2015b, p. 1), leading to results only slightly lower than the ICB recommendations due to the lower systemic capital charges, but replicating the approach of distinguishing between ring-fenced retail and investment banking.

[31] 75% of which must be CET1 (Financial Policy Committee, 2015b).

Taken as a whole, this strategy of imposing restrictive regulation on the banking sector makes sense when we consider the problem faced by the Bank of England as a monetary authority. The global position of sterling and thus the Bank of England has long rested on its use as a funding and reserve currency through the City of London's wholesale and equity markets (Ingham, 1984). However, the crisis had forced the Bank of England and the British State to subsidise and recapitalise major UK retail banks after the failure of a systemic investment bank (Lehman Brothers) due to their centrality in the production and reproduction of money as credit. It was no longer possible to utilise a simple market discipline strategy to curb financial excess due to these explicit and implicit subsidies. Thus, the process of ring-fencing and divergent capital requirements serves to mediate the problem of securing money as credit and the position of the City of London. In a similar manner, the Bank of England's relative resistance to EU legislation aimed at curbing capital, insurance and securities markets (Quaglia, 2017) can be seen not as the relative power of City actors over regulators (James & Quaglia, 2017) but as the coincidence of their goals. This strategy continues when we consider the development and implementation of these tools as part of the Bank of England's broader strategy after the changes to the regulatory architecture came into effect in 2013.

## VII.iii. Macroprudential Regulation in Action

The development of the Bank of England's role as a prudential regulator thus took place in two stages. The first, which saw the FSA dissolved and the Bank of England granted a statutory mandate for financial stability and formal control over regulatory powers, was characterised by the political need to take action on financial regulation. The latter, where the content of the new regulatory regime was developed through national and

international fora, saw the Bank of England begin to develop its new strategy as a regulator. This final section of this thesis now turns to the strategic implementation of this strategy through the Financial Policy Committee. In doing so, it continues to present the case that the development of the regulatory strategy of the Bank of England largely served to offset the financial stability implications of its monetary strategy.

This largely focussed on three key areas: the problem of bank recapitalisation and the setting of the Pillar 2a requirements; the systemic risks of persistently low interest rates and artificially high asset values; the problem of high private indebtedness and the housing market. These were met with a range of measures largely relying on changes in direction and tone of regulation rather than on formal macroprudential tools. Regardless, the strategy that developed was one of discretion and market management to offset the new risks of the new monetary strategy.

## Mandate and Operations

The Financial Policy Committee formed the main decision-making body of the Bank of England's financial stability operations. As part of the 2013 Act, the FPC had been granted a dual mandate, similar to the MPC, first to contribute 'to the achievement by the Bank of the Financial Stability Objective' through 'the identification of, monitoring of, and taking of action to remove or reduce, systemic risks with a view to protecting and enhancing the resilience of the UK financial system'. Subject to which the FPC was to support 'the economic policy of Her Majesty's Government, including its objectives for growth and employment' ("Financial Services Act 2012", .4(1) 9C). In other words, it was to identify and take action on financial stability concerns in a manner that did not harm or risk economic growth.

The makeup of the Committee was the Governor and Deputy Governors, the Chair of the FCA, a member nominated by the Governor, four members appointed by the Chancellor and a non-voting Treasury official (Financial Services Act 2012, .4(1) 9B). Thus, in a similar manner to the MPC, the Bank of England Executive held the majority, but with considerable input from external members. The Committee itself had three sets of powers. First, it had the power of voice as it would approve the six-monthly Financial Stability reports and give speeches and presentations on financial stability issues. It also had the power of recommendation, whereby it could "recommend" an action or strategy to either the FCA or the PRA on an "explain or comply" basis, or to other institutions on a more general basis. This allowed it to set strategic goals and approaches to almost all aspects of regulation. Finally, it had the more limited range of powers of direction, where it could force either the FCA or PRA to immediately apply or change a policy tool (see Murphy & Senior, 2013).

In contrast to the MPC, however, this involved the discussion of and design of new policy instruments. Whereas the MPC's new tools were designed by the Bank of England executive and then granted to the MPC by the Treasury, the FPC would be responsible for actively requesting new powers (Financial Services Act ,2012, 4(1) 9P). The threshold for adopting new directional tools was that they must be clear and the FPC must be able to explain and justify their use and purpose with regular revisions and updates (Financial Policy Committee, 2013b, pp. 10–11) and they could be used only after public consultation and the production of a policy document (Financial Policy Committee, 2015c, p. 11). Thus, while the initial scope considered for review was wide (Financial Policy Committee, 2011b, pp. 10–11), the initial toolkit was intentionally

narrow and limited to clear tools, to be updated over time (Financial Policy Committee, 2012b, p. 4).

At the operational level, the full FPC differed from the Interim FPC in that it actively coordinated with the MPC (Bank of England, 2014a, p. 24), due to the overlap and potential clash of short-term interests between the MPC and FPC (Financial Policy Committee, 2013a, p. 3). This formed part of the new Governor's "One Bank Strategy" which sought to 'fully integrate the skills and resources [the Bank of England] possesses … to better support each policymaker and every policy decision' (Bank of England, 2014a, p. 14 ). While the formal design initially saw this coordination as being conducted through the Executive, and the committees not directly coordinating, the One Bank Strategy saw the FPC and the MPC meeting jointly on a regular basis for briefings. Thus, while they would seek to meet their objectives independently of one another, they would also be working in tandem to minimise policy clashes (see Shakir & Tong, 2014). The limitation of these joint MPC and FPC briefings, was that rather than being a fruitful exchange of knowledge and concerns between the committees, they tended to be staff briefings on one common denominator — the housing market (Interview, Senior Bank of England Official, 2017).

Meanwhile, at the core of the FPC's tools were its ability to shift capital requirements and leverage ratios on the core banking sector. Critically, there was its ability to set the strategic targets of the Pillar 2a regulatory capital and to direct the PRA to set the countercyclical capital buffer, sectoral capital requirements and the leverage ratio, which as the primary macroprudential tools necessarily formed a central feature of discussion.

At the same time, some Bank of England staff were keen for the FPC to focus less on banks and have more have time for what was actually happening more broadly in financial markets (Interview, Senior Bank of England Official, 2017). So with the focus on systemic financial stability, which was specified in legislation to include 'risks attributable to structural features of financial markets, such as connections between financial institutions' (Financial Services Act 2012, .4(1) 9C(a)), market dynamics were included as a central point of strategic discussion. This view was consolidated by the appointment of a new Deputy Governor for Markets and Banking in 2014 (Bank of England, 2014m).

The result was that the FPC's discussions focussed largely on setting capital levels and the dynamics of asset and housing markets. However, within these discussions, the FPC actively sought to mitigate the various risks and problems posed by the exceptional monetary policy of the MPC by tackling the subsequent risks (Financial Policy Committee, 2014c, pp. 10–11). It is to these risks and the actions taken that we now turn.

## Capital Requirements

With the continued crisis in the Eurozone in 2012–2013, the FPC was primarily concerned with the ability for banks to recapitalise to withstand any shocks. However, the rising costs of funding could trigger a wave of defaults, threatening banks' capital further (Financial Policy Committee, 2012d, p. 4). Meanwhile, the slow growth of credit meant the banking sector could not raise capital from retained profits, incentivising them to meet their requirements through deleveraging (Financial Policy Committee, 2012a, pp. 2–3; 2012c, pp. 8–9). In response, the FPC asked, and once possible formally recommended, that the PRA should ensure that regulated banks did not meet their capital

requirements by deleveraging or restricting further credit growth, reducing payments to shareholders if necessary (Financial Policy Committee, 2013d, pp. 6–10).

This problem of undercapitalisation and the systemic risks of slow credit growth posing a potential paradox of thrift meant that the FPC chose not to implement any additional countercyclical tools. But at the same time it pushed for the rapid and high capitalisation of the banking sector not only to reduce the risk of another crisis of money through bank failure but also to increase the capacity of banks to lend to the economy (Financial Policy Committee, 2012d, pp. 1–2). Thus the FPC pushed for a faster accumulation of capital than the Basel III implementation timetable required (Financial Policy Committee, 2013d, pp. 7–8), meanwhile developing a process of stress testing in order to assess the inadequacies of the Basel III standards and set higher requirements through Pillar 2a.

Thus, the UK came through the Eurozone crisis relatively unscathed and with improved capitalisation of banks (Financial Policy Committee, 2013b, p. 7) and a falling leverage ratio (Financial Policy Committee, 2015c, pp. 7-8). The move to stress testing to set capitalisation strategy became a medium-term and recurring feature of the FPC strategy (Financial Policy Committee, 2014a, p. 7; 2014d, p. 9; 2015a, p. 9; 2015b, p. 11; 2015c, p. 7), a strategy whereby the FPC attempted to directly shape the dynamics of the banking system by setting crisis scenarios and preferred strategies to assess regulatory requirements. It thereby directly offset the loss of market discipline by explicitly stating and setting requirements which were aimed at preventing future financial crisis from becoming a crisis of money as credit.

**Stress Testing**

While Pillar 2a capital requirements formally sat with the PRA, the FPC assumed a strategic role in setting the system-wide targets and the stress test scenarios which would be used to assess capital adequacy (Financial Policy Committee, 2015c, p. 10). However, these assessments were very stylised events with important performative elements as to what the scenarios were to be, how capital was to be calculated and what responses the banks could take. The implicit assumption was that banks should be sufficiently capitalised to be able to absorb shocks directly without recourse to reducing the money supply.

The decision to begin stress testing was made in 2013 to be conducted in 2014 and was steadily refined into a more rigorous approach (Financial Policy Committee, 2013a, pp. 5–6; 2013d, pp. 4–9). The scenarios selected served to reflect the concerns of the FPC at the time, housing markets in 2014 and global exposures in 2015, but were not to be seen as predictions but rather extreme or 'tail end' scenarios (Bank of England, 2014n, p. 5). The purpose was both to inform the FPC about the actual risks involved to bank balance sheets and to demonstrate the resilience of the system in general by pushing it to its limits (Financial Policy Committee, 2014d, pp. 4–6).

The first stress test in 2014 thus focussed only on the eight major UK banks and involved both a European level test of a downturn in global economic conditions and a UK specific test which assumed a sharp fall in the housing market, an increase in unemployment to 12%, a contraction in GDP and a sharp rise in the bank rate to 4% (Bank of England, 2014f, pp. 60–61). These were then assessed against a 'more prudent calculation of risk weights' (Financial Policy Committee, 2013d, p. 6), reflecting the

Bank of England's scepticism of the Basel standards. At the same time, bank managers could propose 'strategic' management actions to increase their capital ratios; however, these needed to be plausible and could not include actions that would risk reducing the supply of bank credit (Bank of England, 2014f, pp. 62–63). The results of the test acted to confirm the Bank of England's scepticism of the Basel standards and the RWAs proved to be procyclical and the buffers established insufficient for three of the eight banks assessed (Bank of England, 2014n, pp. 6–7, 13–14), leading the FPC to continue to push for higher capitalisations as part of its review of the UK banking sector (Financial Policy Committee, 2014a, pp. 5–6).

The 2015 stress tests followed a similar approach, but instead focussed on sudden and protracted global downturn over five years and included a requirement to meet the leverage ratio (Bank of England, 2015j, p. 12). Again, banks were not allowed to propose actions that would risk the supply of money. Instead, the three actions considered were a reduction in payments to shareholders, staffing cuts — especially by reducing bonuses — and the conversion of contingent capital (Bank of England, 2015j, pp. 27–28). The result was better than 2014, with most banks passing with only minor reforms to their capital (Financial Policy Committee, 2015d, pp. 11–12).

These two tests then formed the foundation for future stress tests launched in October 2015. The use of stress tests to set and review the Pillar 2a approach was to become a yearly occurrence. The scenarios were to be set by the FPC and the PRA board and would require that banks meet both their own risk models and the PRA's standardised model without deviating from a set path of bank lending (Bank of England, 2015a, p. 10). This would then form part of the FPC's discussions of broader systemic risks as the system evolved as various exposures were assessed independently of the cyclical risks

(Bank of England, 2016c, pp. 10–11). The focus, however, was to remain on the core UK banks, thereby safeguarding the production of money against financial risks while maintaining the competitiveness of the City of London's asset markets.

Stress testing at the Bank of England thus forms an important discretionary strategy. The design and implementation of stress tests and their results allow the FPC to signal its concerns, force banks to develop specific crisis response strategies by declaring some unacceptable for regulatory purposes, justify additional capital requirements and extract information about the exposures of core banks. The problem with this approach to systemic risk and associated capital regulation is that, while it allows for changes in the structure of the financial sector to be accommodated, it also means that regulators at the FPC and the PRA especially, are at risk of regulatory capture because the levels of capital and their assessment are not on the legislative footing initially advocated. Indeed, the justification for setting the level of capital targetted for the banking sector below the ICB recommendations was that there was a cost in continuing to push for further capitalisation and that the risks were now offset through the regulatory and structural reforms (Financial Policy Committee, 2015d, pp. 13–14). Additionally, the focus on the core banking sector, while fringe practices in the City of London were left relatively unregulated, was a practice which played a role in undermining the previous regime (see Thiemann, 2014). This was especially the case where the persistent low-interest environment pursued by the MPC was leading to an 'excessive search for yield' (Financial Policy Committee, 2014c, p. 4).

## Market-Based Finance

While the banking sector was increasingly well capitalised and regulated by the PRA, hedge funds and asset management firms were not. These were instead placed with the FCA, as they were seen as being of minimal prudential risk, having simpler balance sheets (Interview, senior Treasury policymaker, 2017). However, the persistence of a low interest rate environment from 2008 onwards was raising concerns with the FPC. Specifically, a 'search for yield' could be causing liquidity risk and credit risk to be under-priced (Financial Policy Committee, 2013a, pp. 6–7; 2014c, pp. 2–3; 2015c, pp. 4–5). This could cause sudden large losses if confidence fell or if funding costs rose significantly, potentially leading asset managers to sell en masse (Bank of England, 2014g, pp. 28–29).

This scenario of low interest rates and excess liquidity with an aggressive search for yield, however, was the explicit goal of the Bank of England's monetary policy. The purpose of the Asset Purchase Facility in particular was to drastically increase liquidity and artificially force up key asset prices to spark a search for yield and thus fresh lending. Forward Guidance meanwhile sought to push down long-term liquidity and funding concerns to make long-term credit cheaper. Thus, the concerns raised by the FPC were the direct and intended result of the monetary activism of the MPC.

The FPC, meanwhile, was concerned that activities of asset managers could pose a systemic risk. But recognising the MPC's strategy (Financial Policy Committee, 2015d, pp. 3–4), and in keeping with the broader strategy of facilitating the City of London while regulating core banking, the FPC did not take formal action (Financial Policy Committee, 2014c, p. 13; 2015b, pp. 13–14). But it commissioned a series of investigations by the

FCA and PRA into the structure of asset markets and potential risks and solutions (Financial Policy Committee, 2013b, p. 10), concluding that there was sufficient resilience to warrant observation rather than formal action (Financial Policy Committee, 2014d, pp. 3, 10). Instead, it chose to advise that the FCA include in its regulatory dialogue the risks of under-pricing and compressed spreads on assets (Financial Policy Committee, 2015d, pp. 19–21).

Alongside this over-buoyant market, there was also the emerging problem of the rising current account deficit in 2014–15, as slow domestic credit growth and slow economic activity continued (Financial Policy Committee, 2015b, p. 6). This meant that 'the United Kingdom's overall net reliance on external finance [was] around 5% of GDP in 2014' (Bank of England, 2014f, p. 29): in particular investment in the commercial real estate sector, which was prone to bubbles (Financial Policy Committee, 2015d, p. 7). Thus, as the crisis of capital continued and the UK domestic economy stagnated, the rise in growth was potentially linked to a rising bubble in commercial real estate. However, again rather than take action and risk the position of the UK's credit growth[32] and the competitiveness of the City of London (Financial Policy Committee, 2015a, pp. 10–11), the FPC advised that the Treasury act to stabilise this flow of capital through a continued commitment to fiscal surplus and the 'openness' of the UK economy (Financial Policy Committee, 2015a, p. 4; 2015d, p. 7).

In other words, as the push to recapitalise and secure the core banking sector continued, the FPC remained reluctant to take action on emerging financial risks, as to do

[32] With some members of the FPC even arguing that there was no substantial reason for concern.

so would risk the credit structure as slow credit growth continued. This returns us to the core argument of this thesis and the limits of the Bank of England's new regulatory strategy. The continued crisis of money as capital and the need for debts to be repaid at a profit were necessary not only for the successful recapitalisation of the banking sector but also for money to work as capital. This meant that, even though the growth of domestic demand was increasingly premised on unstable credit practices, deviation from this path would risk the credit structure, preventing the FPC from taking action. Meanwhile, the privileged position of the City of London as a financial centre was critical to maintaining the capital inflows that supported the domestic cycle. Without this, the global position of sterling would be at risk, as would the domestic production of money.

It is also worth remembering that the reliance on foreign capital inflows, low interest rates and compressed yield spreads were the factors that the Bank of England saw as the causes and warning signs of the 2007–08 crisis. The lack of action now, albeit for structural reasons, raises significant issues around the sustainability of this strategy. That being said, the FPC was taking action in other areas to offset the risks and implications of the MPC's strategy, specifically in the housing market and the rising concerns over the levels of private indebtedness.

## Housing Market

The UK housing market had started to grow steadily again from 2013 onwards. While this was welcomed to a certain extent, it also posed a significant risk to financial stability due to the already elevated levels of private indebtedness (Financial Policy Committee, 2013c, pp. 3–4; 2015b, p. 6). Mortgage lending made up 'the largest single asset class on major UK banks' balance sheets and mortgage borrowing accounted for the largest share

of household debt' and so was the focus of the FPC's attention (Financial Policy Committee, 2014c, p. 3). However, the concern was the rising levels of private debt and the risk of sudden deleveraging if there was a raise in interest rates or an economic shock, rather than the actual price of housing (Financial Policy Committee, 2015b, p. 6; 2015d, p. 6).

This problem of growing household indebtedness was again seen as the result of persistently low interest rates (Bank of England, 2013b, pp. 25–26). But the purpose of low interest rates was to drive growth through private credit expansion, again placing at odds the monetary and financial stability strategies of the Bank of England. However, unlike the risks in markets for financial assets, the housing market could be restrained without affecting global competitiveness or cross-border financial flows. Thus, the FPC chose to take action to mitigate the risks of the monetary policy environment.

First, it requested that the FLS be restructured to remove the subsidy for the housing sector, to prevent a weakening of assessment criteria for borrowers (Financial Policy Committee, 2013c, pp. 4–5). Then, as the number of high loan to income [LTI] mortgages rose, the FPC took pre-emptive action. Rather than impose sectoral capital requirements which would have dampened the whole market, the FPC chose to shape the market by setting quotas on the number of high LTI (4.5 or higher) mortgages that could be offered to 15% of total mortgage lending (Financial Policy Committee, 2014c, pp. 8–10). This was initially a recommendation, pending the power to direct, which was requested in September 2014 (Financial Policy Committee, 2014e, pp. 9–15).

Thus, the FPC continued to support the general strategy of rising levels of private debt, recognising the financial stability implications, but requiring credit growth to

facilitate debt repayment. Instead, the FPC chose to take action to limit the concentration of debt, attempting to encourage a more even distribution of household debt, thereby reducing the risk of sudden household deleveraging and default from those with insurmountable debts. This, however, only serves to delay and relocate the problem, as household debt to income levels continued to rise, increasing the general rather than the specific risk of indebtedness.

At the same time, the housing market continued to boom as buy-to-let landlords began to speculate on asset values in the low interest rate environment (Financial Policy Committee, 2015a, pp. 6–8; 2015b, pp. 7–8). This had a higher risk of deleveraging and thus financial stability issues, as the dynamics took the form of a more traditional asset bubble based on speculation rather than need (Financial Policy Committee, 2015d, p. 6) Thus, the strategy served to relocate the problem both temporarily and sectorally, as house prices and private debt continued to be the driving force of the UK economy.

Taken together, the Bank of England's financial stability strategy has emerged since 2008 on two levels. The first has been to distinguish between domestic and international financial circuits, regulating the former but seeking competitive advantage in the latter. The second has been to offset the developments in monetary strategy through regulation of actors and markets, subject to the first. These strategies, however, only serve to mitigate not overcome the inherent contradictions of money, and have already begun to show their limits as the unregulated fringe and household debt come under strain. Whether or not they will be overcome or breached is a question for the future.

## VII.iv. Conclusion

By 2015, the Bank of England had established a financial regulation strategy that sought to insulate the production and reproduction of money from financial risks, mitigating the potentially destabilising effects of its monetary strategy, but at the same time maintaining the global position of sterling through the City of London's wholesale asset and funding markets. This has involved the development of a discretionary toolkit aimed at curbing financial excess in the core banking sector and domestic asset markets, such as housing, but leaving relatively untouched the globally orientated markets as an important source of funding for the fragile broader economy.

This chapter has mapped the development of this strategy and in doing so has presented two subsequent arguments. Firstly, while central banks may wield significant influence as technical authorities, they are ultimately constrained by their relationship to broader state structures and the political needs of state actors. Thus, while the Bank of England was empowered and did develop a financial regulation strategy in the immediate aftermath of the crisis, this was within the constraints of the political debates and reforms, culminating in the 2010 election and the 2012 reforms.

The second is that the Bank of England's strategy of significantly higher regulations for core banking and the split of retail activity from wholesale banking was a strategic response to the crisis of money. The reforms ran contrary to the wishes of the domestic financial sector and were significantly above the international accords, questioning the notion that the Bank of England is primarily a representative of financial interests. However, they were more than just a rejection of pro-banking narratives or a response to the domestic composition of forces. Instead, by approaching the Bank of

England as a monetary authority and considering the material reforms to its monetary operations, this chapter has argued that they were a strategic response to both the crisis and the Bank of England's monetary reforms.

The contradictions of money as credit in capitalism had forced the Bank of England to secure the credit structure at great cost. It was now dependent on the profitable deployment of credit to overcome the crisis of money as capital. This, however, opened new risks to the stability of money as credit, as moral hazard and the risk of future banking crises became a real risk with no solution. The response was the development of more stringent and discretionary regulation of core banking activities. The crisis of money as capital and the attempt to restart profitable deployment were causing concern, as households faced falling incomes and rising debt levels. The response was an attempt to distribute the debt overhang through housing market interventions. Thus, by approaching the question of the Bank of England's new financial stability role from the stance of money in capitalism, these strategic shifts become revealed as attempts to offset the costs and contradictions of maintaining money as credit.

Thus, the Bank of England in 2015 was a central bank that had steadily become directly involved in the discretionary management of money and finance. On the one hand, its central banking operations served to secure the credit structure through market liquidity, cheap funding and high asset values. On the other hand, the regulatory branch sought to offset the moral hazard, improve resilience through higher capitalisation and directly mediate asset bubbles caused by cheap credit.

However, like the monetary strategy, the regulatory strategy does not overcome the contradictions of money and credit but mediates them to a limit. The continued

structural need for the UK to secure foreign financing as it runs a current account deficit and the importance of the City of London for sterling's international position leaves financial stability exposed to international shocks. The reliance on yearly stress tests serves to ease this somewhat by adjusting capital requirements, but leaves the regulators, especially at the operational end in the PRA, exposed to regulatory capture. Finally, the continued slow domestic credit growth and the reliance on rising household debt levels to drive consumption have only been redistributed by the Bank of England's housing market interventions. Thus, while UK banks may be more resilient to financial shocks, their debtors, the foundations of their wealth, are increasingly less so. Crisis remains forever on the horizon.

# VIII. Conclusion

The period 2006 to 2015 saw the Bank of England undergo a radical transformation. It began with a single objective, to achieve price stability of 2% CPI. It now has an additional web of interconnected and potentially contradictory objectives of securing market liquidity, managing effective demand and the regulation of finance at both the systemic and the institutional levels. As a result, the Bank of England has moved from a simple framework of setting the terms for just one market — the overnight interbank rate — to an increasingly expansive range of interventions and tools. In doing so, the Bank of England has abandoned its original 'market discipline' strategy, through one of 'bounded' discipline, towards its current active management of funding and credit structures.

The purpose of this thesis has been to map this transformation through an analysis of Bank of England documents and elite interviews with policy makers. This account was underpinned by the development of a revised historical materialist approach to the study of central banking. The result has been a theoretically rich and cohesive account of the changing role of the Bank of England from 2006 to 2015, as it attempts to mediate the contradictions of money as credit. Theoretically, the thesis has sought to situate the Bank of England as first and foremost a monetary authority, which is historically situated within the British state system. This approach understands the changing role of the Bank of

England as the result of a series of complementary and contested strategies over the management of money and the economy with the British State.

Thus this thesis can provide an answer to the original research questions of [**Q]** How has the role of the Bank of England changed from 2006 to 2015? [**Q(a)]** What is the relationship between the Bank of England and broader British State structures? And [**Q(b)]** What is the relationship between the Bank of England and the British financial sector? It is that the changing role of the Bank of England from an isolated "narrow" central bank towards a "wide" and "deep" central bank has been the result of the Bank of England's need to maintain and regulate the credit structure as a central bank. This need placed it in regular conflict with the state's broader concerns as the crystallisation of the political in capitalism. The resulting strategies and developments did not, and will not, overcome the inherent contradictions of the money and state form, but instead served to relocate the pressures structurally and temporally. This in turn required new processes of policy development, as the crisis unfolded from a liquidity crisis, to a crisis of money as credit and a crisis of money as capital.

This final chapter serves as a pause before what Bertell Ollman (2003) refers to as the "jump" at the end of each research process where we return to the starting point at a higher level (p. 169). It serves both as a reflection on the key findings and contributions of the project and as an initial survey of the intellectual landscape about where to go next. It begins by reviewing the key findings of the project and its main contribution [**C1**] as a cohesive and clear account of the changing role of the Bank of England from 2006 to 2015. Part two then reflects on the limitations and implications of the study, both with regards to its ability to speak directly to the research question and its second theoretical contribution [**C2**] of providing a historical materialist conceptualisation of the Bank of

England and central banks in general. Noting that, while this study has been skewed towards the Bank of England in its use of sources and theoretical focus and is only a single case study, it still has implications for the future study of central banks, the British political economy and Marxist monetary theory. It closes by suggesting future avenues for research, placing this project as the foundation and beginning of a larger investigation into the production and reproduction of money in contemporary capitalism.

## VIII.i The Bank of England Today

The main contribution of this thesis has been to situate the changing role of the Bank of England from 2006 to 2015 both in relation to the management of the UK financial sector and the British State. It has drawn on a range of previously untapped records and documents, as well as elite interviews to delve behind the formal accounts into the processes and decisions that underpinned them. In doing so, it has bridged the gap between the political science and central banking literatures and the limitations of the contemporary literature's tendency to emphasise one aspect of a central bank to the detriment of others. Instead, it drew on the historical materialist tradition and emphasised the structural position of the Bank of England in the production and reproduction of money as credit and the broader, but interdependent, political needs of the British State.

The theoretical contribution of the thesis built on the existing historical materialist approaches to the study of central banks by first situating them in relation to money. However, by focussing on money first as a social form and then as a social object, the approach adopted by this thesis has overcome the limitations of the traditional Marxian accounts. Instead, it has shown how central banks draw their raison d'être from the production and reproduction of money as credit. This poses a specific problem for central

banks, as they attempt to overcome the contradictions of money and the credit structure in capitalism. This allowed the development and reading of the changing role of the Bank of England as one of strategic shifts and developments in the face of a series of crises of money as credit, strategies that were not necessarily in alignment with either the political needs of the state or the preferences of financial actors.

The reading of the crisis and the subsequent reforms are thus seen as a process of strategic shifts between the Bank of England and the British State, as they attempt to manage the credit structure and the broader economy. Thus, the initial strategies of depoliticisation and market discipline from the state and the Bank of England came under pressure in 2007 and 2008, as the state struggled to deal with the politicisation consequences of bank failure, while the Bank of England sought to enforce market discipline on the British economy. Thus, the development of the 'British paradigm' for responding to the crisis was shown to be the result of the division of responsibilities in the 1997 central bank independence reforms.

With the failure of Lehman Brothers, the Bank of England was forced to abandon its passive approach and to comply with the requests from the state to intervene. The subsequent reforms to the Sterling Monetary Framework and the launch of the Asset Purchase Facility combined with the government recapitalisation and funding plans served to stabilise the balance sheets of the banking sector. This only served to delay the problem, however, as the stability of the banking sector, and thus the production and reproduction of money as credit, were now premised on the stable value of UK sovereign debt and the return to growth in the broader economy. Furthermore, in order to secure this stability, the Bank of England now had relatively few tools for disciplining the financial

sector. This opened new points of conflict and negotiation between the British State and the Bank of England over the direction of the post-crisis regime.

This process of strategy development played out over two broad areas — the need for a new growth strategy and the new regulatory architecture. Both saw the Bank of England assume sweeping powers and responsibilities, further expanding its role. With the introduction of austerity under the coalition government, the Bank of England's concerns over the stability of government debt were largely appeased; however, this came at the cost of positioning monetary policy and low interest rates as the driver of effective demand. As the economy continued to stagnate, this meant that the Bank of England was forced to adopt an increasingly discretionary approach to subsidising credit expansion. In doing so, the Bank of England served to facilitate the resuscitation of the 'finance-led' growth model that predominated pre-crisis by forcing the costs of adjustment onto labour, either through falling real wages or the continued expansion of household indebtedness.

The development of the new regulatory architecture was similarly the result of complementary strategies at the Bank of England and the British government. With the blame for the crisis successfully shifted to the Financial Services Authority by 2010, the coalition government built on the previous government's reforms and granted the Bank of England both the powers and the mandate it desired, thereby making the Bank of England responsible for the entirety of the credit structure. The subsequent development of the new macroprudential toolkit was largely left to the Bank of England. This saw the development of a discretionary but limited package of reforms, as the Bank of England sought to limit the exposure of the banking sector to crisis, but also to encourage new lending and the global competitiveness of the City of London, factors which would secure the Bank of England's position within the global monetary hierarchy.

Looking forward, these reforms have placed the Bank of England in an increasingly powerful but exposed position. The coalition strategy of placing at one remove the political character of financial regulation, supervision and credit strategies in the Bank of England raises the important question of how the next crisis will be managed. The Bank of England has been forced to take further action to subsidise UK asset values and credit since 2015, with the launch of the Term Funding and the Corporate Bond Schemes (Bank of England, 2018c), further reducing the space available to act in crisis and undermining the credibility of any attempts to set limits to its interventions. Meanwhile, the process of "Brexit" is threatening to weaken the global position of the City of London, as other financial centres attract the 'low hanging fruit' of asset management, clearing and "fintech" companies (SPERI, 2017). Furthermore, the future of British growth remains uncertain, as political actors remain committed to austerity politics (BBC, 2018) and monetary activism in the wake of Brexit (*Financial Times*, 2018).

With responsibility for financial stability and economic growth and contracting policy space, the Bank of England may find itself facing expectations that it is simply unable to meet, especially in crisis, thereby leaving the Bank of England exposed to the political consequences of perceived failure, and placing at risk the political independence of the Bank of England and more importantly its credibility as a monetary authority.

## VIII.ii. Implications for Future Study

This contribution of a clear narrative and the conceptualisation that underpins it are limited, however, by the scope of this study. Namely, it is only a single case study whose evidence is skewed towards the Bank of England. The implications of this study are thus

suggestive and require further research to develop fully. Thus, it forms the initial step in a broader research agenda, rather than a definitive or conclusive account.

It is important to recognise that the findings of this study are limited by the evidence utilised in its construction. These come predominantly from the Bank of England and are not totalising: there is always the risk that there is something left unread and unanalysed. Equally, the focus on the changing role of the Bank of England has meant that the focus of the analysis has been on Bank of England policy documents and reports, which were then triangulated and set in the context of key reports from other actors, such as the Treasury, which provided similar narratives. Similarly, the respondents to interview were predominantly from the Bank of England; however, key Treasury and government officials were also interviewed and again provided similar narratives. Regardless, this skewing of the evidence towards the Bank of England, with other agencies' documents reviewed to a lower level of analysis, privileges one element of a complex story.

However, the purpose of this study was to focus more clearly on the operations of the Bank of England — in relation to other actors — in order to develop an account of its changing role. Thus, the skewing of documentary analysis and interviews towards Bank of England staff and policies was inevitable and in keeping with the purpose of the study. In a similar manner, the key findings of tension with state structures and the shifting relationship between the state, the Bank of England and the UK financial sector as one of strategy development around the needs of the credit structure, while developed through the analysis of Bank of England documents, were corroborated by outside sources. It would still be beneficial, however, for a similar analysis to be done, focussing on how the Treasury or key financial actors developed in relation to the Bank of England, to provide

additional vantage points to this period. This, however, was beyond the scope and viability of this study.

Equally, it is important to recognise that, as a single case study, the ability to directly generalise any claims about the essential character of central banks or the Bank of England is limited. Instead, the results of this study are to be interpreted as initial findings, which would require verification, development and refinement through further studies of central banks and the Bank of England. In particular, the process of empowering the Bank of England raises questions about to what extent the Bank of England's role in 2015 is particularly new. Thus, even within the study of the Bank of England, there would be significant benefits to comparing the Bank of England today to its previous roles and transformations in the early to mid-19$^{th}$ century and the restrictions on banknotes (Clapham, 1944b); the 1920s and 30s and the role that the Bank of England played in both bailing out productive firms and restructuring industries (Sayers, 1976); and the 1970s and 80s when the Bank of England was first granted a clear legal framework for banking regulation (Capie, 2010).

However, there is good reason to think that the findings of this study serve as a secure foundation. Firstly, the Bank of England serves as a paradigmatic case (Flyvbjerg, 2006) due to the position of sterling as a reserve currency, but without an exceptional relationship either to its broader state structure or to the global monetary system. Equally, the 2006–2015 period was one of crisis and change revealing the relations and dynamics of policy development in an 'extreme' case (Yin, 2009). While risking an over-emphasis on policy conflict, this serves to demonstrate the potential for dissensus between the Bank of England and the British State and thus provides space to theorise this. This does,

however, leave the study open to the challenge that its findings are the exception rather than the rule, something that would need to be refuted through further study.

That being said, there are several key claims that can be made from this study, which speak directly to other debates. Firstly and most importantly, this thesis has shown that it is important to disaggregate between the state and the central bank when analysing financial and economic policy. They do not always share the same objectives and may act to undermine one another. This appreciation of central banks as active policy actors is missing from much of the literature on central bank independence, which tends to see the central bank as passively receiving independence and mandates (e.g. Burnham, 2001; Cukierman, 1994; Elgie, 1998; McNamara, 2002b; the exception being Burnham, 2017). Equally, the literature on the British growth model has tended to assume the complete authority of the state, to the detriment of engagement with the importance of the Bank of England's preferences and the credit structure (Bell & Hindmoor, 2015b; Gamble, 2009b; Hay, 2010; Hodson & Mabbett, 2009; the exceptions being Green & Lavery, 2015; Hay, 2013).

In a similar vein, this study has shown the importance of understanding the interconnections between the production of money and economic activity. Modern money's existence as private credit creates structural implications for the study of economic policy making. Problems of debt encumbrance, asset values and financial regulation are not simply questions of good or bad business decisions, but are directly tied to the way in which money enters and flows through the economy. This problem shows itself most directly in the central bank problem, but has implications for economic policy making in general. While this is implicitly acknowledged in much of the central banking literature (e.g. Borio, 2014; Dow, 2017; Goodhart, 2011), the political

implications of this for the development of economic policy making are only recently being developed (e.g. Gabor & Ban, 2016; Turner, 2016) and is a development that this thesis seeks to speak to.

Thus, despite its limitations as a single case study of a single institution, this thesis makes its core contribution of developing a clear and cohesive account of the Bank of England from 2006 to 2015, which has a bearing on both existing literatures and future research in political economy. These are tentative and must be developed further, but serve as a starting point for future analysis. The final section looks forward to this and closes by suggesting next steps both for research and practice.

## VIII.iii. Going Forward

Two things come immediately from this project. The first is the need to politicise monetary policy and financial regulation. As Berman and McNamara (1999) clearly argue, monetary policy will always have distributional affects, both the objective set and the means used to achieve it (see also Watson, 2003). The use of monetary policy as a way of managing economic phenomena, most importantly as a means of securing wage repression, bears implications for the lives of everybody. In a similar manner, financial regulation and supervision have important implications as to how and on what terms money can be accessed, which shapes the economic activity of landlords, employers and individuals through the ability to access the means of social production and reproduction. Thus, there is an important agenda to be set out of challenging and rejecting the technical and exclusive language of central bankers and financiers and to lay bare the realities of their actions for everyday life.

This is especially important now due to the level of power and autonomy that central banks such as the Bank of England wield. Within the Bank of England this rests largely with the Executive, which decides what policies are to be adopted, only devolving the decision to implement to the public committees. Clarifying this process and articulating alternative possibilities for a more equitable future remain important tasks for critical scholars.

Finally, a significant proportion of this thesis has focussed on the problems and contradictions of money as credit. Money as credit is inherently capitalist and premised on growth. It requires the production of surplus to be extracted in interest. This means that the development of low or no growth economies, such as those advocated by many ecologists, or the successful overthrow of capitalism requires new money forms. The multiple fringe monetary practices, such as Local Exchange Trading Systems, cryptocurrency and 'shadow money', thus need to be investigated as potentially subversive monetary practices. It is money that serves as the means of control within capitalism, both as a relation and as a credit object. The realisation of socialism thus necessarily requires its subversion and the praxis of this is the next step in this research agenda.

# Appendix A: List of Interviews

All interview participants were asked how they would like to be referred to in my notes and published work.

## Named Participants

Professor Sir **Charles Bean**, Bank of England Deputy Governor for Monetary Policy from 2008 to 2014, Chief Economist from 2000 to 2008

Lord **Alistair Darling** of Roulanish, Chancellor of the Exchequer from 2007 to 2010

Dr **Michael Cross**, Head of Bank of England Market Intelligence from 2005 to 2009, Head of Sterling Markets from 2007 to 2009, Head of Foreign Exchange and Reserves from 2009 to 2015

Sir **John Gieve**, Deputy Governor for Financial Stability 2006-2009

Lord **Nicholas Macpherson** of Earl's Court, Permanent Secretary to the Treasury from 2005 to 2016

Professor **David Miles**, member of the MPC from 2009 to 2015, non-executive member of the FSA board 2004-2009.

Lord **Adair Turner** of Ecchinswell, Chairman of the FSA from 2008 to 2015

Professor **Tony Yates**, Senior Advisor, Monetary Analysis Division from 2008 to 2013

## Anonymised Participants

Senior Treasury Official

Senior Treasury Policy Maker

Senior Bank of England Official A

Senior Bank of England Official B

External MPC member A

External MPC member B

**Interviews Conducted off the record:** 1

# Bibliography


Adolph, C. (2013). *Bankers, bureaucrats, and central bank politics: the myth of neutrality*. Cambridge: Cambridge University Press.

Aglietta, M. (2001). *A theory of capitalist regulation: the US experience*. London: Verso.

Alessandri, P., & Haldane, A. (2009). Banking on the State Paper by Piergiorgio Alessandri & Andrew G Haldane, Bank of England 6 November 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/paper/2009/banking-on-the-state

Andrews, D. M., Henning, C. R., & Pauly, L. W. (2002). Monetary institutions, financial integration, and political authority. In D. M. Andrews, C. R. Henning, & L. W. Pauly (Eds.), *Governing the world's money* (pp. 1-18). Ithaca: Cornell University Press.

Arestis, P., & Howells, P. (1996). Theoretical reflections on endogenous money: the problem with 'convenience lending'. *Cambridge Journal of Economics, 20*, 539-551.

Arestis, P., & Sawyer, M. (2006). The nature and role of monetary policy when money is endogenous. *Cambridge Journal of Economics, 30*(6), 847-860.

Arksey, H., & Knight, P. (1999). *Interviewing for social scientisits*. London: Sage.

Bagehot, W. (1873). *Lombard street: a description of the money market* (3rd ed.). London: Henry S. King & Co.

Bailey, A. (2012). Prudential regulation: challenges for the future Speech given by Andrew Bailey, Executive Director and Member of the Financial Policy Committee, Bank of England; Managing Director of the Prudential Business Unit, FSA at the University of Edinburgh Business School 4 October 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2012/prudential-regulation-challenges-for-the-future

Bailey, A. (2016). Bank capital – debating again Speech by Mr Andrew Bailey, Deputy Governor of Prudential Regulation and Chief Executive Officer of the Prudential Regulation Authority at the Bank of England, at Barclays' 2016 Financial Conference, London, 9 March 2016. Retrieved from https://www.bis.org/review/r160310a.pdf

Baker, A. (2006). American power and the dollar: the constraints of technical authority and declaratory policy in the 1990s *New Political Economy, 11*(1), 23-46.

Baker, A. (2013). The new political economy of the macroprudential ideational shift. *New Political Economy, 18*(1), 112-139.

Balls, E. (2016). *Speaking out*. London: Hutchinson.

Bank of England. (2006). The Framework for the Bank of England's Operations in the Sterling Money Markets. Retrieved from

http://webarchive.nationalarchives.gov.uk/20100114104332/http://www.bankofengland.co.uk/markets/money/publications/redbook0506.pdf

Bank of England. (2007a). Annual Report. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/annual-report/2007/boe-2007

Bank of England. (2007b). Financial Stability Report - April 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2007/april-2007.pdf

Bank of England. (2007c). Financial Stability Report - October 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2007/october-2007.pdf

Bank of England. (2007d). Inflation Report - May 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2007/may-2007

Bank of England. (2007e). Letter from the Governor to the Chancellor - March 2007 CPI data, 17 April 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/letter/2007/governor-letter-160407.pdf

Bank of England. (2007f). Long-Term Repo Operations: Market Notice - 14 December 2007. Retrieved from http://webarchive.nationalarchives.gov.uk/20081112205701/http://www.bankofengland.co.uk/markets/money/documentation/statement071214.pdf

Bank of England. (2007g). Long Term Repo 15/01/2008 - Results. Retrieved from http://webarchive.nationalarchives.gov.uk/20081231082333/http://www.bankofengland.co.uk/markets/money/documentation/statement080115.pdf

Bank of England. (2007h). Long Term Repo 18/12/2007 - Results. Retrieved from http://webarchive.nationalarchives.gov.uk/20081112205527/http://www.bankofengland.co.uk/markets/money/documentation/statement071218.pdf

Bank of England. (2007i). Market Notice 19th September 2007. Retrieved from http://www.bankofengland.co.uk/markets/Documents/money/documentation/statement070919.pdf

Bank of England. (2007j). Memorandum from the Bank of England to the Treasury Select Committee, 12th September 2007. Retrieved from https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/56/56ii.pdf

Bank of England. (2007k). Quarterly Bulletin 2007 Q4. Retrieved from http://webarchive.nationalarchives.gov.uk/20090327023415/https://www.bankofengland.co.uk/publications/quarterlybulletin/qb0704.pdf

Bank of England. (2007l). Result of Term Auction Conducted on 26th September 2007. Retrieved from http://www.bankofengland.co.uk/markets/Documents/termauctions/statement070926.pdf

Bank of England. (2007m). Sterling Money Market Liasion Group meeting Minutes 14th November 2007. Retrieved from http://webarchive.nationalarchives.gov.uk/20090825151549/http://www.bankofengland.co.uk/markets/money/mmlgnov07.pdf

Bank of England. (2007n). Term auction results - 2 October. Retrieved from http://www.bankofengland.co.uk/markets/Documents/termauctions/statement071002a.pdf

Bank of England. (2007o). Term auction results - 10 October. Retrieved from http://www.bankofengland.co.uk/markets/Documents/termauctions/statement071010.pdf

Bank of England. (2007p). Term auction results - 17 October. Retrieved from http://www.bankofengland.co.uk/markets/Documents/termauctions/statement071017.pdf

Bank of England. (2008a). Annual Report. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/annual-report/2008/boe-2008

Bank of England. (2008b). Bank of England Market Notice: Operational Standing Lending and Deposit Facilities; Discount Window Facility - 8 October 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20140804121053/http://www.bankofengland.co.uk/markets/documents/marketnotice081020.pdf

Bank of England. (2008c). Bank of England Markey Notice: Sterling Long-Term Repo Operations; US Dollar Repo Operations; The Special Liquidity Scheme. Retrieved from http://www.bankofengland.co.uk/markets/Documents/marketnotice081020.pdf

Bank of England. (2008d). Credit Conditions Survey Q4 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/credit-conditions-survey/2007/2007-q4

Bank of England. (2008e). The Development of the Bank of England's Market Operations A consultative paper by the Bank of England. Retrieved from http://webarchive.nationalarchives.gov.uk/20081231042158/http://www.bankofengland.co.uk/markets/money/publications/condococt08.pdf

Bank of England. (2008f). Financial Stability Report - May 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2008/may-2008.pdf

Bank of England. (2008g). Financial Stability Report - October 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2008/october-2008

Bank of England. (2008h). The Framework for the Bank of England's Operations in the Sterling Money Markets. Retrieved from

http://webarchive.nationalarchives.gov.uk/20081231042201/http://www.bankofengland.co.uk/markets/money/publications/redbookjan08.pdf

Bank of England. (2008i). Inflation Report - August 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2008/august-2008.pdf

Bank of England. (2008j). Inflation Report - February 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2008/february-2008.pdf

Bank of England. (2008k). Inflation Report - November 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2008/november-2008

Bank of England. (2008l). Quarterly Buletin 2008 Q4. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203054627/https://www.bankofengland.co.uk/publications/quarterlybulletin/qb0804.pdf

Bank of England. (2008m). Quarterly Bulletin 2008 Q3. Retrieved from http://webarchive.nationalarchives.gov.uk/20081231044656/https://www.bankofengland.co.uk/publications/quarterlybulletin/qb0803.pdf

Bank of England. (2008n). Special Liquidity Scheme: Information. Retrieved from http://www.bankofengland.co.uk/markets/Documents/sls/sls-information.pdf

Bank of England. (2008o). Special Liquidity Scheme: Market Notice. Retrieved from http://www.bankofengland.co.uk/markets/Documents/money/marketnotice080421.pdf

Bank of England. (2009a). Annual Report. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/annual-report/2009/boe-2009

Bank of England. (2009b). Bank of England Asset Purchase Facility: Bonds Eligible for the Corporate Bond Secondary Market Scheme as at 05 October 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20091010004005tf_/http://www.bankofengland.co.uk/markets/apf/corp-bond-eligibilitylist.xls

Bank of England. (2009c). Bank of England Market Notice: Asset Purchase Facility - 19 March 2009. Retrieved from http://www.bankofengland.co.uk/markets/Documents/marketnotice090319.pdf

Bank of England. (2009d). Bank of England Market Notice: Asset Purchase Facility Commercial Paper Facility - 13 February 2009. Retrieved from http://www.bankofengland.co.uk/markets/Documents/marketnotice090213.pdf

Bank of England. (2009e). Bank of England Market Notice: Asset Purchase Facility Commercial Paper Facility - 24 April 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100610230046/http://www.bankofengland.co.uk/markets/marketnotice090424a.pdf

Bank of England. (2009f). Bank of England Market Notice: Asset Purchase Facility Consultation on Proposals for Amendment to the Corporate Bond Secondary Market Scheme - 03 December 09. Retrieved from http://webarchive.nationalarchives.gov.uk/20100610230020/http://www.bankofengland.co.uk/markets/marketnotice091203.pdf

Bank of England. (2009g). Bank of England Market Notice: Asset Purchase Facility Corporate Bond Secondary Market Scheme - 22 December 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100610214722/http://www.bankofengland.co.uk/markets/marketnotice091222.pdf

Bank of England. (2009h). Bank of England Market Notice: Asset Purchase Facility on and After 4 January 2010 Corporate Bond Secondary Market Scheme - 22 December 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100610230022/http://www.bankofengland.co.uk/markets/marketnotice091222cons.pdf

Bank of England. (2009i). Bank of England Market Notice: Asset Purchase Facility on and after 20 April 2009 - 20 April 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100610230021/http://www.bankofengland.co.uk/markets/marketnotice090420.pdf

Bank of England. (2009j). Bank of England Market Notice: Asset Purchase Facility Secured Commercial Paper Facility - 30 July 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100710145415/http://www.bankofengland.co.uk/markets/marketnotice090730.pdf

Bank of England. (2009k). Bank of England Market Notice: Sterling Monetary Frameowrk: Asset Purchases - 05 March 2009. Retrieved from http://www.bankofengland.co.uk/markets/Documents/marketnotice090305.pdf

Bank of England. (2009l). Bank of England Market Notive: Asset Purchase Facility Commercial Paper Facility on and after 3 April - 3 April 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100610230050/http://www.bankofengland.co.uk/markets/marketnotice090403.pdf

Bank of England. (2009m). Credit Conditions Survey 2009 Q1. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/credit-conditions-survey/2009/2009-q1

Bank of England. (2009n). Financial Stability Report - December 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2009/december-2009.pdf

Bank of England. (2009o). Financial Stability Report - June 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2009/june-2009.pdf

Bank of England. (2009p). The role of macroprudential policy - A Discussion Paper. Retrieved from http://webarchive.nationalarchives.gov.uk/20110802145307/http://www.bankofe

ngland.co.uk/publications/other/financialstability/roleofmacroprudentialpolicy091121.pdf

Bank of England. (2010a). Asset Purchase Facility Quarterly Report 2010 Q1. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/asset-purchase-facility/2010/2010-q1

Bank of England. (2010b). Bank of England Market Notice: Sterling Monetary Framework Indexed Long-Term Repo Operations - 15 June 2010. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203081642/http://www.bankofengland.co.uk/markets/marketnotice100615.pdf

Bank of England. (2010c). Bank of England Position-Paper: Framework for Indexed Long-Term Repo Operations - 15 June 2010. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203081642/http://www.bankofengland.co.uk/markets/marketnotice100615.pdf

Bank of England. (2010d). Inflation Report - May 2010. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2010/may-2010

Bank of England. (2011a). Bank of England Quarterly Inflation Report Q&A 11th May 2011. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203062125/https://www.bankofengland.co.uk/publications/inflationreport/conf110511.pdf

Bank of England. (2011b). Financial Stability Report - December 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2011/december-2011

Bank of England. (2011c). Inflation Report - May 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2011/may-2011.pdf

Bank of England. (2011d). Inflation Report - November 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2011/november-2011.pdf

Bank of England. (2011e). Market Notice: Sterling Monetary Framework: Extended Collateral Term Repo Facility - 6 December 2011. Retrieved from http://webarchive.nationalarchives.gov.uk/20120803145745/http://www.bankofengland.co.uk/markets/Documents/marketnotice111206.pdf

Bank of England. (2011f). News Release - Introduction of the Extended Collateral Term Repo Facility - 6 December 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/news/2011/december/introduction-of-the-extended-collateral-term-repo-facility

Bank of England. (2011g). Quarterly Bulletin 2011 Q4. Retrieved from http://webarchive.nationalarchives.gov.uk/20170705100811/http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb1104.pdf

Bank of England. (2011h). Sterling Monetary Framework - DWF Loan Collateral - 22 July 2011. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203081722/http://www.bankofengland.co.uk/markets/money/publications/dwf_loan_collateral.pdf

Bank of England. (2012a). Annual Report. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/annual-report/2012/boe-2012

Bank of England. (2012b). The distributional effects of asset purchases. *Quarterly Bulletin 2012 Q3.* Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2012/the-distributional-effects-of-asset-purchases.pdf

Bank of England. (2012c). Explanatory Note - Funding for Lending Sceme - 13 July 2012. Retrieved from http://webarchive.nationalarchives.gov.uk/20121003224913/http://www.bankofengland.co.uk/markets/Documents/explanatory_notefls120713.pdf

Bank of England. (2012d). Financial Stability Report - June 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2012/june-2012

Bank of England. (2012e). Financial Stability Report - November 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2012/november-2012.pdf

Bank of England. (2012f). Inflation Report - August 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2012/august-2012.pdf

Bank of England. (2012g). Market Notice 13 July 2012 - Funding for Lending Scheme. Retrieved from http://webarchive.nationalarchives.gov.uk/20120803125405/http://www.bankofengland.co.uk/markets/Documents/marketnotice120713.pdf

Bank of England. (2012h). Press Notice: Court of the Bank of England commissions a set of reviews to learn lessons - 21 May 2012. Retrieved from http://webarchive.nationalarchives.gov.uk/20120628111824/http://www.bankofengland.co.uk/publications/Pages/news/2012/049.aspx

Bank of England. (2012i). Z Funding for Lending Scheme: worked examples of borrowing allowance and fee. Retrieved from http://webarchive.nationalarchives.gov.uk/20170726163846/http://www.bankofengland.co.uk/markets/Documents/fls-workedexample1.pdf

Bank of England. (2013a). The Bank of England's Sterling Monetary Framework. Retrieved from

http://webarchive.nationalarchives.gov.uk/20130802163628/http://www.bankofengland.co.uk/markets/Documents/money/publications/redbookjune2013.pdf

Bank of England. (2013b). Financial Stability Report - November 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2013/november-2013.pdf

Bank of England. (2013c). Inflation Report - August 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2013/august-2013.pdf

Bank of England. (2013d). Inflation Report - May 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2013/may-2013

Bank of England. (2013e). Inflation Report - November 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2013/november-2013

Bank of England. (2013f). Liquidity insurance at the Bank of England: developments in the Sterling Monetary Framework. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/markets/sterling-monetary-framework/liquidity-insurance-at-the-boe.pdf

Bank of England. (2013g). Market Notice 28 November 2013 - Changes to the Funding for Lending Scheme Extension. Retrieved from http://webarchive.nationalarchives.gov.uk/20131205144854/http://www.bankofengland.co.uk/markets/Documents/marketnotice131128.pdf

Bank of England. (2013h). Monetary policy trade-offs and forward guidance. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2013/monetary-policy-trade-offs-and-forward-guidance

Bank of England. (2014a). Annual Report. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/annual-report/2014/boe-2014.pdf

Bank of England. (2014b). Bank of England Asset Purchase Facility: Bonds Eligible for the Corporate Bond Secondary Market Scheme as at 12 May 2014. Retrieved from http://webarchive.nationalarchives.gov.uk/20160601164225tf_/http://www.bankofengland.co.uk/markets/apf/corp-bond-eligibilitylist.xls

Bank of England. (2014c). The Bank of England's Sterling Monetary Framework. Retrieved from http://webarchive.nationalarchives.gov.uk/20140804115358/http://www.bankofengland.co.uk/markets/Documents/money/publications/redbook.pdf

Bank of England. (2014d). The Financial Policy Committee's powers to supplement capital requirements A Policy Statement - January 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/statement/2014/fpc-powers-to-supplement-capital-requirements-policy-statement

Bank of England. (2014e). The Financial Policy Committee's powers to supplement capital requirements: A Policy Statement - January 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/statement/2014/fpc-powers-to-supplement-capital-requirements-policy-statement

Bank of England. (2014f). The Financial Policy Committee's review of the leverage ratio - October 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/paper/2014/the-fpc-review-of-the-leverage-ratio-october-2014

Bank of England. (2014g). Financial Stability Report - December 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2014/december-2014.pdf

Bank of England. (2014h). Financial Stability Report - June 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/financial-stability-report/2014/june-2014

Bank of England. (2014i). Indexed Long-Term Repo operations and Contingent Term Repo Facility Market Notice - 16 January 2014. Retrieved from http://webarchive.nationalarchives.gov.uk/20140804120937/http://www.bankofengland.co.uk/markets/Documents/marketnotice140116.pdf

Bank of England. (2014j). Inflation Report - February 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2014/february-2014.pdf

Bank of England. (2014k). Inflation Report - May 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2014/may-2014.pdf

Bank of England. (2014l). Inflation Report - November 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2014/november-2014.pdf

Bank of England. (2014m). Market Notice 2 December 2014 - Amendment to the Funding for Lending Scheme Extension. Retrieved from http://webarchive.nationalarchives.gov.uk/20170726163830/http://www.bankofengland.co.uk/markets/Documents/marketnotice141202.pdf

Bank of England. (2014n). News Release - Three senior appointments to the Bank of England - 18 March 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/news/2014/march/three-senior-appointments-to-the-boe

Bank of England. (2014o). Stress testing the UK banking system: 2014 results. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/stress-testing/2014/stress-testing-the-uk-banking-system-2015-results

Bank of England. (2015a). The Bank of England's approach to stress testing the UK banking system. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/stress-testing/2015/the-boes-approach-to-stress-testing-the-uk-banking-system

Bank of England. (2015b). The Bank of England's Sterling Monetary Framework. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/markets/sterling-monetary-framework/red-book.pdf

Bank of England. (2015c). The Financial Policy Committee's powers over leverage ratio tools - Policy Statement July 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/statement/2015/the-financial-policy-committees-powers-over-leverage-ratio-tools

Bank of England. (2015d). Further Amendment to the Funding for Lending Scheme Extension - Market Notice - 30 November 2015. Retrieved from http://webarchive.nationalarchives.gov.uk/20170726163816/http://www.bankofengland.co.uk/markets/Documents/marketnotice151130.pdf

Bank of England. (2015e). Inflation Report - August 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2015/August-2015.pdf

Bank of England. (2015f). Inflation Report - February 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2015/february-2015.pdf

Bank of England. (2015g). Inflation Report - May 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2015/may-2015.pdf

Bank of England. (2015h). Inflation Report - November 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/inflation-report/2015/november-2015.pdf

Bank of England. (2015i). The Operation of the Funding for Lending Scheme Extension - Market Notice - 30 November 2015. Retrieved from http://webarchive.nationalarchives.gov.uk/20170726163851/http://www.bankofengland.co.uk/markets/Documents/marketnotice151130cons.pdf

Bank of England. (2015j). Stress testing the UK banking system: 2015 results. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/stress-testing/2015/stress-testing-the-uk-banking-system-2015-results

Bank of England. (2016a). APF Gilt Operational Results. Retrieved from http://webarchive.nationalarchives.gov.uk/20160601185323/http://www.bankofengland.co.uk/markets/Pages/apf/gilts/results.aspx

Bank of England. (2016b). The Financial Policy Committee's framework for the systemic risk buffer. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/paper/2016/the-financial-policy-committees-framework-for-the-systemic-risk-buffer.pdf

Bank of England. (2016c). Market Notice - 4 August 2016 - Asset Purchase Facility: Term Funding Scheme. Retrieved from https://www.bankofengland.co.uk/markets/market-notices/2016/asset-purchase-facility-term-funding-scheme-market-notice

Bank of England. (2017). Bank of England's Foreign Currency Reserves. Retrieved from http://www.bankofengland.co.uk/markets/Pages/reserves/default.aspx

Bank of England. (2018a). Credit Conditions Survey - 2018 Q1. Retrieved from https://www.bankofengland.co.uk/credit-conditions-survey/2018/2018-q1

Bank of England. (2018b). FLS Lending data. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/markets/funding-for-lending/fls-data.xlsx

Bank of England. (2018c). Quantitative Easing and the Asset Purchase Facility. Retrieved from https://www.bankofengland.co.uk/markets/quantitative-easing-and-the-asset-purchase-facility

Bank of England. (2018d). Statistical interactive database. Retrieved from http://www.bankofengland.co.uk/boeapps/iadb/

Barclays Plc. (2011a). Annual Report 2011. Retrieved from https://www.home.barclays/content/dam/barclayspublic/docs/InvestorRelations/AnnualReports/AR2011/barclays-plc-annual-report-2011.pdf

Barclays Plc. (2011b). Barclays response, Independent Commission on Banking Interim Report: Consultation on Reform Options - 4 July 2011. Retrieved from http://webarchive.nationalarchives.gov.uk/20120405041313/http://bankingcommission.s3.amazonaws.com/wp-content/uploads/2011/07/Barclays.pdf

Barkin, J. S. (2003). *Social construction and the logic of money*. Albany NY: State University of New York Press.

Basel Committee on Banking Supervision. (2004). International Convergence of Capital Measurement and Capital Standards: A Revised Framework. Retrieved from https://www.bis.org/publ/bcbs107.htm

Basel Committee on Banking Supervision. (2010a). Basel III: A global regulatory framework for more resilient banks and banking systems. Retrieved from https://www.bis.org/publ/bcbs189_dec2010.pdf

Basel Committee on Banking Supervision. (2010b). Guidance for national authorities operating the countercyclical capital buffer.

Basel Committee on Banking Supervision. (2014a). Basel III leverage ratio framework and disclosure requirements January 2014. Retrieved from https://www.bis.org/publ/bcbs270.pdf

Basel Committee on Banking Supervision. (2014b). Frequently asked questions on the Basel III Countercyclical Capital Buffer. Retrieved from https://www.bis.org/bcbs/publ/d339.pdf

BBC. (2007a). "Northern Rock gets bank bail out" 13th September 2007. Retrieved from http://news.bbc.co.uk/1/hi/business/6994099.stm

BBC. (2007b). Virgin poised for Rock takeover - 25 November 2007. Retrieved from http://news.bbc.co.uk/1/hi/business/7111813.stm

BBC. (2009). FSA Admits Huge Mistakes - 25 February 2009. Retrieved from http://www.bbc.co.uk/blogs/thereporters/robertpeston/2009/02/fsa_says_we_were_worldclass_ni.html

BBC. (2018). We're not out of austerity tunnel yet - Chancellor Philip Hammond. Retrieved from https://www.bbc.co.uk/news/uk-politics-43363167

Bean, C. (2007). "The Meaning of Internal Balance" Thirty Years On Speech given by Charles Bean, Chief Economist and Member of the Monetary Policy Committee, Bank of England At the James Meade Centenary Conference 13 July 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2007/the-meaning-of-internal-balance-thirty-years-on

Bean, C. (2009). The Economic Outlook - Remarks given by Charles Bean, Deputy Governor for Monetary Policy at the Bank of England at the National Farmers' Union Conference, Birmingham 16 February 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2009/the-economic-outlook

Bean, C. (2017) *Interview with Professor Sir Charles Bean, Bank of England Deputy Governor for Monetary Policy from 2008 to 2014, Chief Economist from 2000 to 2008/Interviewer: J. Evemy*.

Begg, I. (2009). Monetary policy strategies. In K. Dyson & M. Marcussen (Eds.), *Central banks in the age of the euro: europeanization, convergence, and power*. Oxford: Oxford University Press.

Beggs, M. (2016). The state as a creature of money. *New Political Economy, 22*(5), 463-477.

Bell, S. (2001). The role of the state and the hierarchy of money. *Cambridge Journal of Economics, 25*, 149-163.

Bell, S., & Hindmoor, A. (2015a). Masters of the universe but slaves of the market: bankers and the great financial meltdown. *The British Journal of Politics & International Relations, 17*(1), 1-22.

Bell, S., & Hindmoor, A. (2015b). Taming the City? ideas, structural power and the evolution of British banking policy amidst the great financial Mmeltdown. *New Political Economy, 20*(3), 454-474.

Bell, S., & Hindmoor, A. (2017). Structural power and the politics of bank capital regulation in the United Kingdom. *Political Studies, 65*(1), 103-121.

Benford, J., Berry, S., Nikolov, K., Young, C., & Robson, M. (2009). Quantitative easing. *Bank of England Quarterly Bulletin Q2*, 90-100.

Berman, S., & McNamara, K. (1999). Bank on Democracy: Why Central Banks Need Public Oversight. *Foreign Affairs, 78*(2), 2-8.

Bernanke, B. S., & Reinhart, V. R. (2004). Conducting monetary policy at very low short-term Interest Rates. *The American Economic Review, 94*(2), 85-90.

Berry, J. M. (2002). Validity and reliability issues In elite interviewing. *Political Science & Politics, 35*(4), 679-682.

Bibow, J. (2000). On exogenous money and bank behaviour: the Pandora's box kept shut in Keynes' theory of liquidity preference? *The European Journal of the History of Economic Thought, 7*(4), 532-568.

Bieler, A., & Morton, A. D. (2008). The deficits of discourse in IPE: turning base metal into gold? *International Studies Quarterly, 52*, 103-128.

Blanchard, O. J., & Fischer, S. (1989). *Lectures on macroeconomics*. Cambridge: MIT press.

Blanchflower, D. (2010). Mervyn King Must Go - 1st December 2010. *The Guardian*. Retrieved from https://www.theguardian.com/commentisfree/2010/dec/01/mervyn-king-bank-of-england

Blinder, A. S., Ehrmann, M., Fratzscher, M., Haan, J. D., & Jansen, D.-J. (2008). Central bank communication and monetary policy: a survey of theory and evidence. *NBER Working Paper Series, 13932*.

Bonefeld, W. (1995a). Money, equality and exploitation: an interpretation of Marx's treatment of money. In W. Bonefeld & J. Holloway (Eds.), *Global capital, national state and the politics of money*. Basingstoke: Macmillan.

Bonefeld, W. (1995b). The politics of debt: social discipline and control. *Common Sense, 17*, 69-91.

Bonefeld, W. (2010). Free economy and the strong state: some notes on the state. *Capital & Class, 34*(1), 15-24.

Bonefeld, W. (2012). Adam Smith and ordoliberalism: on the political form of market liberty. *Review of International Studies, 39*(02), 233-250.

Bonefeld, W., & Burnham, P. (1998). The politics of counter inflationary credibility in Britain, 1990-94. *Review of Radical Political Economics, 30*(1), 32-52.

Bonefeld, W., Gunn, R., & Psychopedis, K. (1992). Introduction. In W. Bonefeld, R. Gunn, & K. Psychopedis (Eds.), *Open Marxism Vol.1 - dialectics and history* (pp. ix-xx). London: Pluto.

Bonefeld, W., & Holloway, J. (1995). The politics of money. In W. Bonefeld & J. Holloway (Eds.), *Global capital, national state and the politics of money* (pp. 1-7). Basingstoke: Macmillan Press.

Boneva, L., Cloyne, J., Weale, M., & Wieladek, T. (2016). The effect of unconventional monetary policy on inflation expectations: evidence from firms in the United Kingdom. *International Journal of Central Banking, 12*(3), 161-195.

Borio, C. (2014). Central banking post-crisis: what compass for uncharted waters? In C. Goodhart, D. Gabor, J. Vestergaard, & I. Erturk (Eds.), *Central banking at a crossroads* (pp. 191-216). London: Anthem.

Borio, C., & Disyatat, P. (2009). Unconventional monetary policies: an appraisal. *BIS Working Papers No 292*.

Bowles, P., & White, G. (1994). Central bank independence: a political economy approach. *The Journal of Development Studies, 31*(2), 235-264.

Bowman, A., Erturk, I., Froud, J., Johal, S., Leaver, A., Moran, M., & Williams, K. (2013). Central bank led capitalism? *Seattle University Law Review, 36*, 455-487.

Braun, B. (2016). The financial consequences of Mr Draghi? Infrastructural power and the rise of market‐based (central) banking. *FEPS Studies*.

Bridges, J., & Thomas, R. (2012). The impact of QE on the UK economy — some supportive monetarist arithmetic. *Bank of England Working Paper, 422*.

Brien, K. M. (2015). Internal relations, the concrete universal, and historical materialism. *Capital & Class, 39*(1), 111-130.

British Bankers' Association. (2011). Interim report: consultation on reform options - Letter to Independent Commission on Banking. Retrieved from http://webarchive.nationalarchives.gov.uk/20120827150024/http://bankingcommission.independent.gov.uk/interimresponses/

British Bankers' Association. (2015). Assessing capital adequacy under Pillar 2. Retrieved from https://www.bba.org.uk/download-file/?f=eyJ1cmwiOiJodHRwczpcL1wvd3d3LmJiYS5vcmcudWtcL3dwLWNvbnRlbnRcL3VwbG9hZHNcLzIwMTVcLzA0XC9CQkEwMS00NDYyMjMtdjEtQkJBX3Jlc3BvbnNlX3RvX1BSQV9QaWxsYXJfMl9DUF8xXzE1LnBkZiIsIm5lZWRsb2dpbiI6ZmFsc2UsInVzZXIiOmZhbHNlfQ==

Brown, G. (1997). The New Monetary Policy Framework - Letter from Chancellor of the Exchequer to Governor of the Bank of England 6 May 1997. Retrieved from http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/chancellorletter970506.pdf

Brown, G. (2001). The Conditions for full employment. In F. Capie & G. Wood (Eds.), *Policy makers on policy: the Mais lectures* (pp. 123-135). London: Routledge.

Brown, G. (2010). *Beyond the crash: overcoming the first crisis of globalization*. London: Simon and Schuster.

Broz, J. L., & Grossman, R. S. (2004). Paying for privilege: the political economy of Bank of England charters, 1694–1844. *Explorations in Economic History, 41*(1), 48-72.

Brunnermeier, M. K., Goodhart, C. A. E., Crockett, A., Persaud, A., & Shin, H. S. (2009). The Fundamental Principles of Financial Regulation. *Geneva Reports on the World Economy, 11*.

Buckley, J., Howarth, D., & Quaglia, L. (2012). Internal Market: The Ongoing Struggle to 'Protect' Europe from Its Money Men. *Journal of Common Market Studies, 50*, 99-115.

Buiter, W., & Rahbari, E. (2012). The European Central Bank as Lender of Last Resort for Sovereigns in the Eurozone. *Journal of Common Market Studies, 50*, 6-35.

Buiter, W. H. (2008). Why the United Kingdom should join the eurozone. *International Finance, 11*(3), 269-282.

Bullpit, J. (1986). The discipline of the new democracy: Ms Thatcher's domestic statecraft. *Political Studies, 34*, 19-39.

Burkett, P. (1989). Financial Innovation, crises and contradictions of central bank policy under capitalism: the case of investment fund money. *Capital & Class, 38*, 37-62.

Burn, G. (1999). The state, the city and the euromarkets. *Review of International Political Economy, 6*(2), 225-261.

Burnham, P. (1994a). Open Marxism and vulgar international political economy. *Review of International Political Economy, 1*(2), 221-231.

Burnham, P. (1994b). The organisational view of the state. *Politics, 14*(1), 1-7.

Burnham, P. (1995). Capital, crisis and the international state system. In *Global capital, national state and the politics of money* (pp. 92-115). Basingstoke: Macmillan Press.

Burnham, P. (1999). The politics of economic management in the 1990s. *New Political Economy, 4*(1), 37-54.

Burnham, P. (2001). New Labour and the politics of depoliticisation. *British Journal of Politics & International Relations, 3*(2), 127-149.

Burnham, P. (2006). Marxism, the state and British politics. *British Politics, 1*(1), 67-83.

Burnham, P. (2007). The Politicisation of Monetary Policy-Making in Postwar Britain. *British Politics, 2*(3), 395-419.

Burnham, P. (2010). Class, capital and crisis: a return to fundamentals. *Political Studies Review, 8*(1), 27-39.

Burnham, P. (2011a). Depoliticising Monetary Policy: the Minimum Lending Rate Experiment in Britain in the 1970s. *New Political Economy, 16*(4), 463-480.

Burnham, P. (2011b). Towards a political theory of crisis: policy and resistance across europe. *New Political Science, 33*(4), 493-507.

Burnham, P. (2014). Depoliticisation: Economic Crisis and Political Management. *Policy & Politics, 42*(2), 189-206.

Burnham, P. (2017). The Alternative Externalisation Strategy, Operational Independence and the Bank of England. *Parliamentary Affairs, 70*, 173-189.

Burnham, P., Grant, W., Lutz, K. G., & Layton-Henry, Z. (2008). *Research methods in politics*. Basingstoke: Palgrave Macmillan.

Cable, V. (2010). *The storm: the world economic crisis and what it means*. London: Atlantic Books Ltd.

Cable, V. (2015). *After the storm.* London: Atlantic.

Campbell, M. (2005). Marx's explanation of money's functions: overturning the quantity theory. In F. Moseley (Ed.), *Marx's theory of money: modern appraisals*. Basingstoke: Palgrave Macmillan.

Campbell, M. (2013). The transformation of money into capital. In R. Bellofiore, G. Starosta, & P. D. Thomas (Eds.), *In Marx's laboratory: critical interpretations of the Grundrisse* (pp. 149-175). Boston: Brill.

Capie, F. (2010). *The Bank of England: 1950s - 1979*. Cambridge: Cambridge University Press.

Carney, M. (2013). Crossing the threshold to recovery Speech given by Mark Carney, Governor of the Bank of England At a business lunch hosted by the CBI East Midlands, Derbyshire and Nottinghamshire Chamber of Commerce and the Institute of Directors at the East Midlands Conference Centre 28 August 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2013/crossing-the-threshold-to-recovery.pdf

Cerny, P. G. (1994). The dynamics of financial globalization: technology, market strucutre, and policy response. *Policy Sciences, 27*(4), 319-342.

Chick, V. (1973). *The theory of monetary policy*. London: Gray Mills.

Chick, V. (2008). Could the crisis at Northern Rock have been predicted?: an evolutionary approach. *Contributions to Political Economy*, *27*, 115-134.

Chick, V., & Dow, S. C. (2002). Monetary Policy with Endogenous Money and Liquidty Preference: A Nondualistic Treatment. *Journal of Post Keynesian Economics, 24*(4), 587-607.

Churm, R., Joyce, M., Kapetanios, G., & Theodoridis, K. (2015). Unconventional monetary policies and the macroeconomy: the impact of the United Kingdom's QE2 and Funding for Lending Scheme. *Bank of England Staff Working Paper, 542*.

Churm, R., Radia, A., Leake, J., Srinivasan, S., & Whisker, R. (2012). The Funding for Lending Scheme. *Bank of England Quarterly Bulletin Q4*(4), 306-320.

Citi Group. (2010). Proposals to Strenghten Captial Regulation. Retrieved from https://www.bis.org/publ/bcbs165/citigroup.pdf

Clapham, J. (1944a). *The Bank of England: A History* (Vol. 2). Cambridge: Cambridge University Press.

Clapham, J. (1944b). *The Bank of England: A History* (Vol. 1). Cambridge: Cambridge University Press.

Clapham, J. (1976). Sir John Clapham's account of the financial crisis in August 1914. In R. S. Sayers (Ed.), *The Bank of England 1891-1944: Appendixes* (pp. 31-45). Cambridge: Cambridge University Press.

Clarke, S. (1983). State, Class Struggle, and the Reproduction of Capital. *Kapitalistate, 10-11*, 113-134.

Clarke, S. (1988). *Keynesianism, Monetarism and the crisis of the state*. Aldershot: Edward Elgar.

Clarke, S. (2003). The Rationality and Irrationality of Money. In R. Westra & A. Zuege (Eds.), *Value and the World Economy Today: Production, Finance and Globalization*. New York: Palgrave Macmillan.

Cleaver, H. (1995). The subversion of money as command within the current crisis. In W. Bonefeld & J. Holloway (Eds.), *Global capital, national state and the politics of money* (pp. 14-17). Basingstoke: Macmillan.

Cohen, B. (1998). *The geography of money*. Ithaca: Cornell University Press.

Cohen, B. (2016). The IPE of money revisited. *Review of International Political Economy, 24*(4), 657-680.

Committee on Finance and Industry. (1931). Report of the Committee on Finance and Indistry. Retrieved from http://filestore.nationalarchives.gov.uk/pdfs/small/cab-24-222-CP-160-3.pdf

Conaghan, D. (2012). *The Bank: inside the Bank of England*. London: Biteback.

Conservative Party. (2009). From Crisis to Condifence: Plan for Sound Banking. *Policy White Paper.* Retrieved from http://conservativehome.blogs.com/files/planforsoundbanking.pdf

Conservative Party. (2010). The Conservative Manifesto 2010. Retrieved from https://www.conservatives.com/~/media/Files/Manifesto2010

Court of the Bank of England. (2007a). Meeting of Transactions Sub-Committee of Court - Monday 26 November 2007.

Court of the Bank of England. (2007b). Minutes of Additional Meeting of Court, 8 October 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2007/court-2007.pdf

Court of the Bank of England. (2007c). Minutes of Emergency Meeting of Court, 13 September 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2007/court-2007.pdf

Court of the Bank of England. (2008a). Meeting of Transactions Sub-Committee of Court - Tuesday 7 October 2008.

Court of the Bank of England. (2008b). *Meeting of Transactions Sub-Committee of Court: Wednesday 01 October 2008*. Retrieved from http://webarchive.nationalarchives.gov.uk/20160601193305/http://www.bankofe

ngland.co.uk/archive/Documents/archivedocs/codm/20072009/transactionscomm.pdf.

Cox, R. (1981). Social forces, states and world orders: beyond international realtions theory. *Millennium, 10*(2), 126-155.

Cross, M. (2017) *Interview with Dr Michael Cross, Head of Bank of England Market Intelligence from 2005 to 2009, Head of Sterling Markets from 2007 to 2009, Head of Foreign Exchange and Reserves from 2009 to 2015/Interviewer: J. Evemy*.

Crouch, C. (2009). Privatised keynesianism: an unacknowledged policy regime. *British Journal of Politics & International Relations, 11*(3), 382-399.

Crouch, C. (2011). *The strange non-death of neoliberalism*. Cambridge: Polity.

Cukierman, A. (1994). Central bank independence and monetary control. *The Economic Journal, 104*(427), 1437-1448.

Dale, S. (2009). Tough Times, Unconventional Measures - Speech given at the Association of British Insurers Economics and Research Conference, London 27 March 2009. Retrieved from http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2009/speech383.pdf

Dale, S. (2010). Spencer Dale, Executive Director and Cheif Economist, Bank of England - INFLATION, INFLATION, INFLATION, Remarks at Cardiff Business School 22 September 2010. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2010/inflation-inflation-inflation-speech-by-spencer-dale.pdf

Darling, A. (2008a) *BANKS ON THE BRINK: Interview of BBC business editor Robert Peston with Alistair Darling, Chancellor of the Exchequer* http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/221208_darling.pdf.

Darling, A. (2008b). Letter from the Chancellor to the Chairman of the Treasury Select Committee 19 June 2008. Retrieved from https://www.parliament.uk/documents/upload/Chancellor08619F.pdf

Darling, A. (2009a). Letter to Mervyn King, Governor of the Bank of England, dated 3 March 2009. Retrieved from http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/chancellorletter050309.pdf

Darling, A. (2009b). Letter to Mervyn King, Governor of the Bank of England, dated 05 November 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/d/chx_letter_051109.pdf

Darling, A. (2009c). Letter to Mervyn King, Governor of the Bank of England, dated 06 August 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/d/chx_letter_060809.pdf

Darling, A. (2009d). Letter to Mervyn King, Governor of the Bank of England, dated 29 January 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/d/ck_letter_boe290109.pdf

Darling, A. (2009e). Statement to the House of Commons on Bank Lending - 9 January 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100407211759/http://www.hm-treasury.gov.uk/statement_chx_190109.htm

Darling, A. (2011). *Back from the brink: 1,000 days at number 11*. London: Atlantic.

Darling, A. (2017) *Interview with Lord Darling of Roulanish, Chancellor of the Exchequer from 2007 to 2010/Interviewer: J. Evemy*. PhD.

Davies, H., & Green, D. (2010). *Banking on the Future: The Fall and Rise of Central Banking*. Oxford: Princeton University Press.

de Brunhoff, S. (2015). *Marx on money*. London: Verso.

de Goede, M. (2005). *Virtue, fortune and faith*. London: University of Minnesota Press.

De Grauwe, P. (1996). *International money: postwar trends and theories* (2nd ed.). Oxford: Oxford University Press.

De Vita, G., & Berger, W. (2015). 'Forward guidance': new monetary policy instrument or esoteric fad? *Public Money & Management, 35*(4), 289-296.

Dellepiane-Avellanda, S. (2015). Credibility Dilemmas During Economic Crisis: Greece in the Argentine Mirror. In G. Karyotis & R. Gerodimos (Eds.), *The Politics of Extreme Austerity* (pp. 222-239). Basingstoke: Palgrave Macmillan.

Dellepiane-Avellaneda, S. (2013). Gordon unbound: the heresthetic of central bank independence in britain. *British Journal of Political Science, 43*(2), 263-293.

Dellepiane-Avellaneda, S. (2015). The political power of economic ideas: the case of 'expansionary fiscal contractions'. *The British Journal of Politics & International Relations, 17*(3), 391-418.

Department for Business Innovation and Skills. (2013). SMALL BUSINESS SURVEY 2012: SME EMPLOYERS. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/193555/bis-13-p74-small-business-survey-2012-sme-employers.pdf

Desan, C. (2014). *Making money: coin, currency, and the coming of capitalism*. Oxford: Oxford University Press.

Di Muzio, T., & Robbins, R. H. (2017). *An anthropology of money*. New York: Routledge.

DMO. (2011). 2008 Credit Guarantee Scheme - Guaranteed Liabilities. Retrieved from http://webarchive.nationalarchives.gov.uk/20110718104950/http://www.dmo.gov.uk/index.aspx?page=CGS/CGSLiabilities

DMO. (2012a). 2012 National Loan Guarantee Scheme - Guaranteed Liabilities. Retrieved from http://webarchive.nationalarchives.gov.uk/20161205135103/http://dmo.gov.uk/index.aspx?page=CGS/NLGSLiabilities

DMO. (2012b). Market Notice: Outline of the UK Government's National Loan Guarantee Scheme - 20 March 2012. Retrieved from https://dmo.gov.uk/media/2141/2012-03-20nlgsmarketnotice.pdf

Dodd, N. (1994). *The sociology of money: economics, reason & contemporary society*. Cambridge: Polity Press.

Dodd, N. (2005a). Laundering "money": on the need for conceptual clarity within the sociology of money. *European Journal of Sociology, 46*(3), 387-411.

Dodd, N. (2005b). Reinventing monies in Europe. *Economy and Society, 34*(4), 558-583. doi:10.1080/03085140500277096

Donnelly, S. (2014). Power politics and the undersupply of financial stability in Europe. *Review of International Political Economy, 21*(4), 980-1005.

Dow, S. (2014). The realtionship between central banks and governments: what are central banks for? In C. Goodhart, D. Gabor, J. Vestergaard, & I. Erturk (Eds.), *Central banking at a Crossroads*. London: Anthem.

Dow, S. (2017). Central banking in the twenty-first century. *Cambridge Journal of Economics, 41*(6). doi:10.1093/cje/bex051

Dyson, S. B. (2016). Gordon Brown, Alistair Darling, and the Great Financial Crisis: Leadership traits and policy responses. *British Politics*.

Eckstein, H. (1975). Case study and theory in political science. In F. I. Greenstein & P. Nelson W (Eds.), *Handbook of political science* (Vol. 7, pp. 79-137).

Eichengreen, B. (1992). *Golden fetters: the gold standard and the great depression 1919–1939*. Oxford: Oxford University Press.

Eichengreen, B. (2008). *Globalizing capital*. Princeton: Princeton University Press.

Eijffinger, S., & De Haan, J. (1996). The political economy of central-bank independence. *Princeton University Speical Papers in International Economics, 19*.

Elgie, R. (1998). Democratic accountability and central bank independence: Historical and contemporary, national and European perspectives. *West European Politics, 21*(3), 53-76.

Elgie, R. (2002). The politics of the European Central Bank: principal-agent theory and the democratic deficit. *Journal of European Public Policy, 9*(2), 186-200.

Engelen, E., Ertürk, I., Froud, J., Johal, S., Leaver, A., Moran, M., . . . Williams, K. (2011). *After the great complacence*. Oxford: Oxford University Press.

Engelen, E., Ertürk, I., Froud, J., Johal, S., Leaver, A., Moran, M., & Williams, K. (2012). Misrule of experts? The financial crisis as elite debacle. *Economy and Society, 41*(3), 360-382.

Epstein, R. A., & Rhodes, M. (2016). The political dynamics behind Europe's new banking union. *West European Politics, 39*(3), 415-437.

Ertürk, I. (2014). Reconceptualizing Central Bank Unconventional Policies: Long Positions on No-Growth Capitalism. In C. Goodhart, D. Gabor, J. Vestergaard, & I. Erturk (Eds.), *Central banking at a crossroads* (pp. 217-228). London: Anthem.

European Systemic Risk Board. (2015). Recommendation of the European Systemic Risk Board of 11 December 2015 on recognising and setting countercyclical buffer rates for exposures to third countries (ESRB/2015/1). Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AC%3A2016%3A097%3AFULL

MPC member A. (2017) *Telephone interview with MPC member (external)/Interviewer: J. Evemy*.

MPC member B. (2017) *Interview with MPC member (external)/Interviewer: J. Evemy*.

Senior Bank of England Official A. (2017) *Interview with senior Bank of England official/Interviewer: J. Evemy*.

Senior Bank of England Official B. (2017) *Interview with senior Bank of England official/Interviewer: J. Evemy*.

Fawcett, P., & Marsh, D. (2014). Depoliticisation, governance and political participation. *Policy & Politics, 42*(2), 171-188.

Federal Reserve. (2002). Proposed Revision to the Federal Reserve's Discount Window Lending Programs. *Federal Reserve Bullitin July 2002.* Retrieved from https://www.federalreserve.gov/pubs/bulletin/2002/0702lead.pdf

Federal Reserve. (2008). Press Release: FOMC statement: Federal Reserve and other central banks announce reductions in policy interest rates - 08 October 2008. Retrieved from https://www.federalreserve.gov/newsevents/pressreleases/monetary20081008a.htm

Ferguson, N. (2008). *The ascent of money: A financial history of the world*: Penguin.

Fforde, J. (1992). *The Bank of England and public policy, 1941-1958*. Cambridge: Cambridge University Press.

Financial Policy Committee. (2011a). Record of the Interim Financial Policy Committee Meeting 16 June 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2011/financial-policy-committee-meeting-june-2011.pdf

Financial Policy Committee. (2011b). Record of the Interim Financial Policy Committee Meeting 20 September 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2011/financial-policy-committee-meeting-september-2011

Financial Policy Committee. (2011c). Record of the Interim Financial Policy Committee meeting 23 November 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2011/financial-policy-committee-meeting-november-2011

Financial Policy Committee. (2012a). Record of the Interim Financial Policy Committee Meeting 14 September 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2012/financial-policy-committee-meeting-september-2012.pdf

Financial Policy Committee. (2012b). Record of the Interim Financial Policy Committee Meeting 16 March 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2012/financial-policy-committee-meeting-march-2012

Financial Policy Committee. (2012c). Record of the Interim Financial Policy Committee Meeting 21 November 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2012/financial-policy-committee-meeting-november-2012

Financial Policy Committee. (2012d). Record of the Interim Financial Policy Committee meeting 22 June 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2012/financial-policy-committee-meeting-june-2012

Financial Policy Committee. (2013a). Record of the Financial Policy Committee Meeting 18 June 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2013/financial-policy-committee-meeting-june-2013

Financial Policy Committee. (2013b). Record of the Financial Policy Committee Meeting 18 September 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2013/financial-policy-committee-meeting-september-2013

Financial Policy Committee. (2013c). Record of the Financial Policy Committee Meeting 20 November 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2013/financial-policy-committee-meeting-november-2013

Financial Policy Committee. (2013d). Record of the Interim Financial Policy Committee Meeting 19 March 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2013/financial-policy-committee-meeting-march-2013

Financial Policy Committee. (2014a). Record of the Financial Policy Committee Meeting 8 and 15 December 2014. Retrieved from

https://www.bankofengland.co.uk/-/media/boe/files/record/2014/financial-policy-committee-meeting-december-2014

Financial Policy Committee. (2014b). Record of the Financial Policy Committee Meeting 15 October 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2014/financial-policy-committee-meeting-october-2014.pdf

Financial Policy Committee. (2014c). Record of the Financial Policy Committee Meeting 17 and 25 June 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2014/financial-policy-committee-meeting-june-2014

Financial Policy Committee. (2014d). Record of the Financial Policy Committee Meeting 19 March 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2014/financial-policy-committee-meeting-march-2014

Financial Policy Committee. (2014e). Record of the Financial Policy Committee Meeting 26 September 2014. Retrieved from https://www.bankofengland.co.uk/-/media/BoE/Files/record/2014/financial-policy-committee-meeting-september-2014

Financial Policy Committee. (2015a). Record of the Financial Policy Committee Meeting 23 September 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2015/financial-policy-committee-meeting-october-2015

Financial Policy Committee. (2015b). Record of the Financial Policy Committee Meeting 24 June 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2015/financial-policy-committee-meeting-july-2015

Financial Policy Committee. (2015c). Record of the Financial Policy Committee Meeting 24 March 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2015/financial-policy-committee-meeting-march-2015

Financial Policy Committee. (2015d). Record of the Financial Policy Committee Meeting 25 and 30 November 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/record/2015/financial-policy-committee-meeting-december-2015

Financial Services Authority. (2006). Annual Report. Retrieved from http://www.fsa.gov.uk/pubs/annual/ar06_07/ar06_07.pdf

Financial Services Authority. (2009). The Turner Review. Retrieved from http://www.fsa.gov.uk/pubs/other/turner_review.pdf

Financial Times. (2007). Shock profits warning at Northern Rock - June 27 2007. *Financial Times*. Retrieved from https://ftalphaville.ft.com/2007/06/28/5511/shock-profits-warning-at-northern-rock/

Financial Times. (2008a). Brown poised for banks showdown - 6 December 2008.

Financial Times. (2008b). Santander agrees £1.3bn A&L buy - July 14 2008. Retrieved from https://www.ft.com/content/06351748-517b-11dd-a97c-000077b07658

Financial Times. (2009a). FSA 'failed spectacularly' over banks. Retrieved from http://www.ft.com/cms/s/0/d42a2a5c-7d31-11de-b8ee-00144feabdc0.html

Financial Times. (2009b). Tories stifle FSA staffing drive - 16th August 2009. Retrieved from http://www.ft.com/cms/s/0/af4581dc-8aa6-11de-ad08-00144feabdc0.html

Financial Times. (2009c). Treasury in court fight over RBS investments - 20 August 2009.

Financial Times. (2010a). Chancellor poised for RBS backlash - 4 February 2010. Retrieved from https://next.ft.com/content/5cef0fe6-e04d-11de-8494-00144feab49a

Financial Times. (2010b). RBS and Lloyds told to boost lending - 22 March 2010.

Financial Times. (2011a). Osborne and Cable at odds over bank reform - August 14 2011. Retrieved from https://www.ft.com/content/e8d1ddbe-c65a-11e0-823b-00144feabdc0

Financial Times. (2011b). UK government to accept Vickers 'in full' - December 18 2011. Retrieved from https://www.ft.com/content/1f90fcf2-296d-11e1-a066-00144feabdc0

Financial Times. (2012a). GDP data confirm UK double-dip recession - 22 June 2012. Retrieved from https://www.ft.com/content/08be8858-c104-11e1-853f-00144feabdc0

Financial TImes. (2012b). Treasury open to Carney radicalism. Retrieved from https://www.ft.com/content/48b8f330-4480-11e2-8fd7-00144feabdc0

Financial Times. (2013). Britain slides back towards recession - 25 Januray 2013. Retrieved from https://www.ft.com/content/d0795284-66d0-11e2-a805-00144feab49a

Financial Times. (2018). What are the economic effects of Brexit so far? - June 24, 2018. Retrieved from https://www.ft.com/content/dfafc806-762d-11e8-a8c4-408cfba4327c

Fine, B., & Lapavitsas, C. (2000). Markets and money in social theory: what role for economics? *Economy and Society*, *29*(3), 357-382.

Fine, B., & Saad-Filho, A. (2016). *Marx's 'Capital'* (6th ed.). London: Pluto.

Fisher, P. (2010a). "The Corporate Sector and the Bank of England's Asset Purchases" - Speech by Paul Fisher Executive Director, Markets and Member of the Monetary Policy Committee, Bank of England, Association of Corporate Treasurers - 18 February 2010. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2010/the-corporate-sector-and-the-bank-of-englands-asset-purchases-speech-by-paul-fisher

Fisher, P. (2010b). Speech by Paul Fisher, Executive Director, Markets and Member of the Monetary Policy Committee -"Managing Liquidity in the System: The Bank's Liquidity Insurance Operations" - The Loan Market Association Syndicated Loans Conference, London, 30 September 2010. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2010/managing-liquidity-in-the-system-speech-by-paul-fisher

Fisher, P. (2011). The economic outlook: some remarks on monetary policy Speech given by Paul Fisher, Executive Director for Markets, member of the Monetary Policy Committee and member of the interim Financial Policy Committee, Bank of England - Agency for Scotland 23 May 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2011/the-economic-outlook-some-remarks-on-monetary-policy-speech-by-paul-fisher

Fisher, P. (2012). Liquidity support from the Bank of England: the Discount Window Facility - Speech given by Paul Fisher, Executive Director for Markets, and member of the Monetary Policy Committee and the Financial Policy Committee National Asset-Liability Management global conference, London 29 March 2012. Retrieved from http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2012/speech561.pdf

Flinders, M., & Buller, J. (2006a). Depoliticisation: Principles, tactics and tools. *British Politics, 1*(3), 293-318.

Flinders, M., & Buller, J. (2006b). Depoliticization, democracy and arena shifting. In *Autonomy and regulation: coping with agencies in the modern state* (Vol. London, pp. 53-81): Edward Elgar.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative inquiry, 12*(2), 219-245.

Fontana, G. (2003). Post keynesian approaches to endogenous money: a time framework explanation. *Review of Political Economy, 15*(3), 291-314.

Fontana, G. (2009). *Money, uncertainty and time*. Abingdon: Routledge.

Franklin, J., Rostom, M., & Thwaites, G. (2015). The banks that said no: banking relationships, credit supply and productivity in the United Kingdom. *Bank of England Staff Working Paper, 557*.

Friedman, M. (1969). *The optimum quantity of money, and other essays*. New York: Macmillan.

Froud, J., Moran, M., Nilsson, A., & Williams, K. (2010). Wasting a crisis? democracy and markets in Britain after 2007. *The Political Quarterly, 81*(1), 25-38.

G20. (2008). Declaration of the Summit on Financial Markets and the World Economy Washington DC, November 15, 2008. Retrieved from http://www.g20.utoronto.ca/2008/2008declaration1115.html

G20. (2009). London Summit – Leaders' Statement - 2 April 2009. Retrieved from https://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf

Gabor, D. (2014a). The ECB and the Political Economy of Collateral. In C. A. E. Goodhart, D. Gabor, J. Vestergaard, & I. Erturk (Eds.), *Central banking at a crossroads* (pp. 157-176). London: Anthem Press.

Gabor, D. (2014b). Learning from Japan: the European Central Bank and the European sovereign debt crisis. *Review of Political Economy, 26*(2), 190-209.

Gabor, D. (2016). The (impossible) repo trinity: the political economy of repo markets. *Review of International Political Economy, 23*(6), 967-1000.

Gabor, D., & Ban, C. (2016). Banking on bonds: the new links between states and markets. *Journal of Common Market Studies, 54*(3), 617-635.

Gabor, D., & Vestergaard, J. (2016). *Towards a theory of shadow money*. Paper presented at the ECPR Joint Session on "the Politics of Central Banking" April 2016, Pisa.

Galeano, E. (1973). *Open veins of latin america*. London: Monthly Review Press.

Gamble, A. (2002). Political memoirs. *British Journal of Politics and International Relations, 4*(1), 141-151.

Gamble, A. (2009a). British politics and the financial crisis. *British Politics, 4*(4), 450-462.

Gamble, A. (2009b). *The Spectre at the Feast*. Basingstoke: Palgrave Macmillan.

Gamble, A. (2010). The political consequences of the crash. *Political Studies Review, 8*(1), 3-14.

Gamble, A. (2012). The United Kingdom: the triumph of fiscal realism? In W. Grant & G. K. Wilson (Eds.), *The consequences of the global financial crisis: the rhetoric of reform and regulation* (pp. 34-50). Oxford: Oxford University Press.

Gamble, A. (2014). *Crisis without end?* Basingstoke: Palgrave Macmillan.

Gardener, E. P. M. (1986). Supervision in the United Kingdom. In E. P. M. Gardener (Ed.), *UK banking supervision* (pp. 70-84). London: Allen & Unwin.

George, E. (2001). Monetary policy in Britain and Europe. In F. Capie & G. Wood (Eds.), *Policy makers on policy: the Mais lectures* (pp. 70-77). London: Routledge.

Gieve, J. (2006). Practical Issues in Preparing for Cross-Border Financial Crises Speech given by Sir John Gieve, Deputy Governor, Bank of England 23 November 2006. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2006/practical-issues-in-preparing-for-the-cross-border-financal-crises

Gieve, J. (2009). Seven Lessons From The Last Three Years - Speech given by Sir John Gieve, London School of Economics, London 19 February 2009.

Gieve, J. (2017) *Interview with Sir John Gieve, Deputy Governor for Financial Stability 2006-2009/Interviewer: J. Evemy*.

Gilbert, E., & Helleiner, E. (1999). Nation-states and money: historical contexts, interdisciplinary perspectives. In E. Gilbert & E. Helleiner (Eds.), *Nation-states and money* (pp. 1-22). London: Routledge.

Giuseppi, J. (1966). *The Bank of England: A history from its foundation in 1964*. London: Evans Brothers.

Goldman Sachs. (2010). International framework for liquidity risk measurement, standards and monitoring. Retrieved from https://www.bis.org/publ/bcbs165/goldmansachsliq.pdf

Goodhart, C. A. E. (1984). *Monetary theory and practice: the UK experience*. Basingstoke: Macmillan.

Goodhart, C. A. E. (1988). *The evolution of central banks*. Cambridge MA: MIT Press.

Goodhart, C. A. E. (1989). Has moore become too horizontal? *Journal of Post Keynesian Economics, 12*(1), 29-34.

Goodhart, C. A. E. (1995). *The central bank and the financial system*. Basingstoke: Macmillan.

Goodhart, C. A. E. (2008). The background to the 2007 financial crisis. *International Economics and Economic Policy, 4*(4), 331-346.

Goodhart, C. A. E. (2009). Bank of England: learning to live with the Euro. In K. Dyson & M. Marcussen (Eds.), *Central banks in the age of the Euro* (pp. 241-262). Oxford: Oxford University Press.

Goodhart, C. A. E. (2011). The changing role of central banks. *Financial History Review, 18*(02), 135-154.

Gourevitch, P. A. (1986). *Politics in hard times: comparative responses to international economic crises*. London: Cornell University Press.

Graeber, D. (2011). *Debt the 5000 years*. New York: Mellville House.

Green, J. (2016). Anglo-American development, the Euromarkets, and the deeper origins of neoliberal deregulation. *Review of International Studies, 42*(3), 425-449.

Green, J., & Lavery, S. (2015). The regressive recovery: distribution, inequality and state power in Britain's post-crisis political economy. *New Political Economy, 20*(6), 894-923.

Gurley, J. G., & Shaw, E. S. (1960). *Money in a theory of finance*. Washington, D.C.: The Brookings Institution.

Haas, P. M. (1992). Introduction: epistemic communities and international policy coordination. *International Organization, 46*(1), 1-35.

Haldane, A. (2009). Credit is Trust, Speech given by Andrew Haldane, Executive Director, Financial Stability, Bank of England At the Association of Corporate

Treasurers, Leeds 14 September 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2009/credit-is-trust

Haldane, A. (2010). The $100 Billion Question, Andrew G Haldane Executive Director Financial Stability Bank of England March 2010. Retrieved from https://www.bis.org/review/r100406d.pdf

Haldane, A. (2012a). 'The dog and the frisbee' Paper by Andrew G Haldane, Executive Director, Financial Stability and member of the Financial Policy Committee and Vasileios Madouros, Economist, Bank of England Given at the Federal Reserve Bank of Kansas City's 36th economic policy symposium, "The Changing Policy Landscape", Jackson Hole, Wyoming 31 August 2012. Retrieved from https://www.bis.org/review/r120905a.pdf

Haldane, A. (2012b). 'On being the right size' Speech given by Andrew G Haldane, Executive Director, Financial Stability and member of the Financial Policy Committee Institute of Economic Affairs' 22nd Annual Series, The 2012 Beesley Lectures At the Institute of Directors, Pall Mall 25 October 2012.

Haldane, A. (2014). Constraining discretion in bank regulation. In C. Goodhart, D. Gabor, J. Vestergaard, & I. Erturk (Eds.), *Central banking at a crossroads*. London: Anthem.

Hall, R. B. (2008). *Central banking as global governance: constructing financial credibility*. Cambridge: Cambridge University Press.

Hamalainen, P., Pop, A., Hall, M., & Howcroft, B. (2012). Did the Market Signal Impending Problems at Northern Rock? An Analysis of Four Financial Instruments. *European Financial Management, 18*(1), 68-87.

Hardie, I., & Howarth, D. (2009). Die krise but not la crise? The financial crisis and the transformation of German and French banking systems. *Journal of Common Market Studies, 47*(5), 1017-1039.

Hardie, I., & Howarth, D. (2013a). Framing market-based banking and the financial crisis. In I. Hardie & D. Howarth (Eds.), *Market-based banking and the international financial crisis*. Oxford: Oxford University Press.

Hardie, I., & Howarth, D. (2013b). *Market-based banking and the international financial crisis*. Oxford: Oxford University Press.

Hardie, I., Howarth, D., Maxfield, S., & Verdun, A. (2013). Banks and the False Dichotomy in the Comparative Political Economy of Finance. *World Politics, 65*(04), 691-728.

Harvey, D. (2006). *The limits to capital*. London: Verso.

Harvey, D. (2010). *The enigma of capital*. London: Profile Books.

Hay, C. (2009). Good inflation, bad inflation: the housing boom, economic growth and the disaggregation of inflationary preferences in the UK and Ireland. *British Journal of Politics & International Relations, 11*(3), 461-478.

Hay, C. (2010). ‘Things can only get worse …’: The political and economic significance of 2010. *British Politics, 5*(4), 391-401.

Hay, C. (2013a). Pathology without crisis? the strange demise of the anglo-liberal growth model. *Government and Opposition, 46*(1), 1-31.

Hay, C. (2013b). Treating the symptom not the condition: crisis definition, deficit reduction and the search for a new British growth model. *The British Journal of Politics & International Relations, 15*(1), 23-37.

Hayek, F. A. (1982). *Law, Legislation and Liberty* (Vol. 2). London: Routledge.

Hayek, F. A. (2002). Competition as a discovery procedure. *The Quarterly Journal of Austrian Economics, 5*(3), 9-23.

HBOS plc. (2008). *HBOS plc Preliminary Results 2008 - Stock Exchange Announcement*. Retrieved from https://www.lloydsbankinggroup.com/globalassets/documents/investors/2008/2008_hbos_results.pdf

Helleiner, E. (2002). Why are Territorial Currencies Becoming Unpopular? In D. M. Andrews, C. R. Henning, & L. W. Pauly (Eds.), *Governing the World's Money* (pp. 148-167). Ithaca: Cornell University Press.

Hilferding, R. (2006). *Finance capital*. Abingdon: Routledge.

HM Treasury. (2002). *Reforming Britian's economic and financial policy* (E. Balls & G. O'Donnell Eds.). London: Palgrave.

HM Treasury. (2007a). Press Notice 96/07: Northern Rock Plc Deposits - 20th September 2007. Retrieved from http://webarchive.nationalarchives.gov.uk/20100413203226/http:hm-treasury.gov.uk/press_96_07.htm

HM Treasury. (2007b). Press Notice 104/07: Northern Rock Plc Deposits - 9th October 2007. Retrieved from http://webarchive.nationalarchives.gov.uk/20100413203226/http:hm-treasury.gov.uk/press_104_07.htm

HM Treasury. (2007c). Press Notice 107/07: Extended Gaurentee and Aditional Facility for Northern Rock Plc - 11th October 2007. Retrieved from http://webarchive.nationalarchives.gov.uk/20100413203226/http:hm-treasury.gov.uk/press_107_07.htm

HM Treasury. (2008a). PR 100/08: Financial support to the banking industry - 08 October 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20081231055302/http://www.hm-treasury.gov.uk/press_100_08.htm

HM Treasury. (2008b). Press Notice 04/08 - Northern Rock - 21 January 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20081231050500/http://www.hm-treasury.gov.uk/press_04_08.htm

HM Treasury. (2008c). Press Notice 97/08: Bradford & Bingley plc - 29 September 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20081231030251/http://www.hm-treasury.gov.uk/press_97_08.htm

HM Treasury. (2008d). Press Notice PBR08/01: Facing global challenges: supporting people through difficult timess - 28 November 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20081230230018/http://www.hm-treasury.gov.uk/d/pbr08_completepn.pdf

HM Treasury. (2008e). Press Notice PBR08/02: Value Added Tax, Income tax allowances, National Insurance Contributions, Child and Working Tax Credit rates 2009-10 and other rates - 28 November 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20081230230018/http://www.hm-treasury.gov.uk/d/pbr08_completepn.pdf

HM Treasury. (2008f). Press Release 16/08 - Northern Rock Plc - 17th February 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20100407164517/http://www.hm-treasury.gov.uk/press_16_08.htm

HM Treasury. (2008g). Written statement by the Chancellor on Northern Rock - 31st March 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20100413203226/http://www.hm-treasury.gov.uk/statement_chx_31030.htm

HM Treasury. (2009a). Press Notice 07/09: Statement on the Government's Asset protection scheme - 19 January 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100407185701/http://www.hm-treasury.gov.uk/press_07_09.htm

HM Treasury. (2009b). Press Notice 19/09: Asset Protection Scheme and increased lending - 26 February 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100407211523/http://www.hm-treasury.gov.uk/press_19_09.htm

HM Treasury. (2009c). Press Notice 23/09: Asset Protection Scheme - agreement with Lloyds - 07 March 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20090505174624/http://www.hm-treasury.gov.uk/press_23_09.htm

HM Treasury. (2009d). Press Notice 99/09: Implementation of Financial Stability Measures for Lloyds Banking Group and Royal Bank of Scotland - 03 November 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100407211732/http://www.hm-treasury.gov.uk/press_99_09.htm

HM Treasury. (2009e). Reforming financial markets. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/238578/7667.pdf

HM Treasury. (2009f). Royal Bank of Scotland: details of Asset Protection Scheme and launch of the Asset Protection Agency.

HM Treasury. (2010a). Independent Commission on Banking – Terms of Reference. Retrieved from http://webarchive.nationalarchives.gov.uk/20101118112927/http://www.hm-treasury.gov.uk/d/banking_commission_terms_of_reference.pdf

HM Treasury. (2010b). A new approach to financial regulation: judgement, focus and stability. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/81389/consult_financial_regulation_condoc.pdf

HM Treasury. (2011a). The Government response to the Independent Commission on Banking. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/31585/govt_response_to_icb_191211.pdf

HM Treasury. (2011b). A new approach to financial regulation: building a stronger system. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/81411/consult_newfinancial_regulation170211.pdf

HM Treasury. (2011c). Project Merlin – Banks' statement 9 February 2011 – Revised. Retrieved from http://webarchive.nationalarchives.gov.uk/20130102204914/http://www.hm-treasury.gov.uk/d/bank_agreement_090211.pdf

HM Treasury. (2011d). Project Merlin – Government statement 9 February 2011. Retrieved from http://webarchive.nationalarchives.gov.uk/20130102204917/http://www.hm-treasury.gov.uk/d/gov_agreement_090211.pdf

HM Treasury. (2012a). National Loan Guarantee Scheme (NLGS). Retrieved from http://webarchive.nationalarchives.gov.uk/20121102184255/http://www.hm-treasury.gov.uk/nlgs.htm

HM Treasury. (2012b). Rules of the National Loan Guarantee Scheme 20 March 2012. Retrieved from http://webarchive.nationalarchives.gov.uk/20120411134919/http://www.dmo.gov.uk/documentview.aspx?docname=CGS/press/2012-04-20NLGSRules.pdf

HM Treasury. (2013a). Memorandum of Understanding on financial crisis management - 19 December 2012. Retrieved from http://webarchive.nationalarchives.gov.uk/20131211072439/https://www.gov.uk/government/publications/memoranda-of-understanding-financial-services-act

HM Treasury. (2013b). Statutory Instrument No. 3115 - Financial Services and Markets: The Capital Requirements Regulations. Retrieved from https://www.legislation.gov.uk/uksi/2013/3115/made

HM Treasury. (2014). Statutory Instrument No. 894 - Financial Services and Markets: The Capital Requirements (Capital Buffers and Macroprudential Measures) Regulations. Retrieved from http://www.legislation.gov.uk/uksi/2014/894/pdfs/uksi_20140894_en.pdf

Hodson, D., & Mabbett, D. (2009). UK Economic Policy and the Global Financial Crisis: Paradigm Lost? *Journal of Common Market Studies, 47*(5), 1041-1061.

Holloway, J., & Picciotto, S. (1977). Capital, crisis and the state. *Capital & Class*(2), 76-101.

House of Commons. (2008). Public Bill Committee (Banking Bill) Tuesday 21 October 2008. Retrieved from https://www.publications.parliament.uk/pa/cm200708/cmpublic/banking/081021/am/81021s01.htm

House of Commons Library. (2010). Standard Note: SN/BTS/5642 - Taxpayer direct support to banks (Lloyds, RBS, Northern Rock, and Bradford & Bingley). Retrieved from http://researchbriefings.files.parliament.uk/documents/SN05642/SN05642.pdf

House of Commons Library. (2014). SN/SP/6251: Incentivising the Right to Buy (RTB). Retrieved from http://researchbriefings.files.parliament.uk/documents/SN06251/SN06251.pdf

House of Commons Scottish Affairs Committee. (2009). Dunfermline Building Society. Retrieved from https://publications.parliament.uk/pa/cm200809/cmselect/cmscotaf/548/548.pdf

Howarth, D. (2013). France and the international financial crisis: The legacy of state-led finance. *Governance, 26*(3), 369-395.

Howarth, D., & Quaglia, L. (2013). Banking on stability: the political economy of new capital requirements in the European Union. *Journal of European Integration, 35*(3), 333-346.

HSBC. (2010). Consultative document BCBS 165 - International Framework for Liquidity Risk Measurement, Standards and Monitoring. Retrieved from https://www.bis.org/publ/bcbs165/hsbcliquidity.pdf

HSBC. (2011). HSBC Response to Interim Report from ICB.

Hungin, H., & James, S. (2018). Central bank reform and the politics of blame avoidance in the UK. *New Political Economy, Online Early Access*.

Independent Commission on Banking Standards. (2011). Final Report Recomendations. Retrieved from http://webarchive.nationalarchives.gov.uk/20120827143059/http://bankingcommission.independent.gov.uk/

Ingham, G. (1984). *Capitalism divided?: the city and industry in British social development*. London: Macmillan.

Ingham, G. (1999). Capitalism, money and banking: a critique of recent historical sociology. *The British Journal of Sociology, 50*(1), 76-96.

Ingham, G. (2001). Fundamentals of a theory of money: untangling Fine, Lapavitsas and Zelizer. *Economy and Society, 30*(3), 304-323.

Ingham, G. (2004). *The nature of money*. Cambridge: Polity.

Ingham, G. (2006). Further reflections on the ontology of money: responses to Lapavitsas and Dodd. *Economy and Society, 35*(2), 259-278.

Irwin, N. (2013). *The alchemists*. London: Headline.

Issing, O. (2008). *The birth of the Euro*. Cambridge: Cambridge University Press.

Itoh, M., & Lapavitsas, C. (1999). *Political economy of money and finance*. Basingstoke: Palgrave Macmillan.

Jabko, N. (2009). Transparency and accountability. In K. Dyson & M. Marcussen (Eds.), *Central banks in the age of the Euro: europeanization, convergence, and power* (pp. 391-406). Oxford: Oxford University Press.

Jabko, N., & Massoc, E. (2012). French capitalism under stress: how Nicolas Sarkozy rescued the banks. *Review of International Political Economy, 19*(4), 562-585.

James, S. (2016). The domestic politics of financial regulation: Informal ratification games and the EU capital requirement negotiations. *New Political Economy, 21*(2), 187-203.

James, S., & Quaglia, L. (2017). Why does the United Kingdom (UK) have inconsistent preferences on financial regulation? The case of banking and capital markets. *Journal of Public Policy, early online access*.

Jessop, B. (2014). Repoliticising depoliticisation: theoretical preliminaries on some responses to the American fiscal and Eurozone debt crises. *Policy & Politics, 42*(2), 207-223.

Johal, S., Moran, M., & Williams, K. (2012). The future has been postponed: the great financial crisis and British politics. *British Politics, 7*(1), 69-81.

Joyce, M., Lasaosa, A., Stevens, I., & Tong, M. (2010). The financial market impact of quantitative easing. *Bank of England Working Papers, 393*.

Joyce, M. A. S., McLaren, N., & Young, C. (2013). Quantitative easing in the United Kingdom: evidence from financial markets on QE1 and QE2. *Oxford Review of Economic Policy, 28*(4), 671-701.

JP Morgan Chase. (2010). Letter to the Secretariat of the Basel Committee on Banking Supervision - 16 April 2010. Retrieved from https://www.bis.org/publ/bcbs165/jpmorganchase.pdf

Kalecki, M. (2003). *Theory of economic dynamics*. Abingdon: Routledge.

Kapstein, E. B. (1992). Between power and purpose: central bankers and the politics of regulatory convergence. *International Organization, 46*(1), 265.

Kashyap, A. K., & Stein, J. C. (2004). *Cyclical implications of the Basel II capital standards*: Federal Reserve Bank of Chicago Economic Perspectives Q1.

Keynes, J. M. (1930). *A Treatise on money* (Vol. 1). New York: Harcourt Brace and Company.

Keynes, J. M. (1945). *The general theory of employment interest and money*. London: Macmillan and co.

King, M. (2006a). Speech by Mervyn King Governor of the Bank of England Reform of the International Monetary Fund At the Indian Council for Research on International Economic Relations (ICRIER) in New Delhi, India Monday, 20 February 2006. Retrieved from https://www.bis.org/review/r060222a.pdf

King, M. (2006b). Speech by Mervyn King Governor of the Bank of England Through the Looking Glass: Reform of the International Institutions Inaugural International Distinguished Lecture to the Melbourne Centre for Financial Studies, Australia on Thursday 21 December 2006. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203052923/https://www.bankofengland.co.uk/publications/speeches/2006/speech296.pdf

King, M. (2007). Z The MPC Ten Years On, Lecture given by Mervyn King, Governor of the Bank of England 2 May 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2007/the-mpc-ten-years-on

King, M. (2008a). Banking and the Bank of England, Speech given by Mervyn King, Governor of the Bank of England 10 June 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2008/banking-and-the-bank-of-england

King, M. (2008b). Letter to Alistair Darling, Her Majesty's Chancellor, dated 15 December 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20120803134742/http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/cpiletter081215.pdf

King, M. (2008c). Letter to Alistair Darling, Her Majesty's Chancellor, dated 15 September 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20120803134737/http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/cpiletter080915.pdf

King, M. (2008d). Letter to Alistair Darling, Her Majesty's Chancellor, dated 16 June 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20120803134736/http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/cpiletter080616.pdf

King, M. (2008e). Speech given at Lord Mayor's Banquet for Bankers and Merchants of the City of London at the Mansion House 18 June 2008. Retrieved from http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2008/speech349.pdf

King, M. (2009a). Finance: A Return from Risk - Speech to the Worshipful Company of the International Bankers at Mansion House, London 17 March 2009. Retrieved from http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2009/speech381.pdf

King, M. (2009b). Letter to Alistair Darling, Her Majesty's Chancellor, dated 05 November 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203055739/http://www.bankofengland.co.uk/monetarypolicy/pdf/govletter091105.pdf

King, M. (2009c). Letter to Alistair Darling, Her Majesty's Chancellor, dated 06 August 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203055740/http://www.bankofengland.co.uk/monetarypolicy/pdf/govletter090806.pdf

King, M. (2009d). Letter to Alistair Darling, Her Majesty's Chancellor, dated 17 February 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203055741/http://www.bankofengland.co.uk/monetarypolicy/pdf/govletter090305.pdf

King, M. (2009e). Letter to Alistair Darling, Her Majesty's Chancellor, dated 29 January 2009. Retrieved from http://webarchive.nationalarchives.gov.uk/20100815160113/https://www.bankofengland.co.uk/markets/apfgovletter090129.pdf

King, M. (2009f). Speech given at CBI Dinner, Nottingham, at the East Midlands Conference Centre 20 January 2009. Retrieved from http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2009/speech372.pdf

King, M. (2009g). Speech given by Mervyn King, Governor of the Bank of England To Scottish Business Organisations in Edinburgh 20 October 2009. Retrieved from http://www.bankofengland.co.uk/archive/Documents/historicpubs/speeches/2009/speech406.pdf

King, M. (2010a). Banking – from Bagehot to Basel, and back again, Speech by Mr Mervyn King, Governor of the Bank of England, at the Second Bagehot Lecture, Buttonwood Gathering, New York, 25 October 2010. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2010/banking-from-bagehot-to-basel-and-back-again-speech-by-mervyn-king

King, M. (2010b). Speech by Mervyn King Governor of the Bank of England address to the 2010 Trades Union Congress, Manchester on Wednesday 15 September 2010. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2010/mervyn-king-address-to-the-2010-trades-union-congress-manchester

King, M. (2011a). Letter to George Osborne, Her Majesty's Chancellor, dated 06 October 2011. Retrieved from

http://webarchive.nationalarchives.gov.uk/20111203055742/http://www.bankofengland.co.uk/monetarypolicy/pdf/govletter111006.pdf

King, M. (2011b). Speech given by Sir Mervyn King, Governor of the Bank of England At the Lord Mayor's Banquet for Bankers and Merchants of the City of London at the Mansion House 15 June 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2011/speech-by-mervyn-king-at-the-lord-mayors-banquet-at-mansion-house

King, M. (2012a). Speech given by Mervyn King, Governor of the Bank of England The 2012 BBC Today Programme Lecture, London 2 May 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2012/bbc-today-programme-lecture

King, M. (2012b). Speech given by Sir Mervyn King, Governor of the Bank of England At the Lord Mayor's Banquet for Bankers and Merchants of the City of London at the Mansion House 14 June 2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2012/mansion-house

King, M. (2016). *The end of alchemy: money, banking, and the future of the global economy*. London: Little Brown.

Kirshner, J. (2000). The study of money. *World Politics, 52*(3), 407-436.

Kirshner, J. (2014). Same as it ever was? continuity and change in the international monetary system *Review of International Political Economy, 21*(5), 1007-1016.

Kliman, A. (2011). *The failure of capitalist production: underlying causes of the great recession*. London: Pluto.

Knafo, S. (2006). The gold standard and the origins of the modern international monetary system. *Review of International Political Economy, 13*(1), 78-102.

Knafo, S. (2013). *The making of modern finance: liberal governance and the gold standard*. London: Routledge.

Konings, M. (2018). *Capital and time*. Stanford: Stanford University Press.

Labour Party. (2010). 2010 Election Manifesto. Retrieved from https://web.archive.org/web/20100429213217/http://www2.labour.org.uk/uploads/TheLabourPartyManifesto-2010.pdf

Lagos, R. (2006). Inside and outside money. *Research Department Staff Report, Federal Reserve Bank of Minneapolis, 374*.

Langley, P. (2008). Sub-prime mortgage lending: a cultural economy. *Economy and Society, 37*(4), 469-494.

Langley, P. (2014). *Liqudity lost*. Oxford: Oxford University Press.

Lapavitsas, C. (1991). The theory of credit money: a structural analysis. *Science & Society, 55*(3), 291-322.

Lapavitsas, C. (2000). Money and the Analysis of Capitalism: The Significance of Commodity Money. *Review of Radical Political Economics, 32*(4), 631-656.

Lapavitsas, C. (2001). Political Economy of Central Banks: Agents of Stability or Sources of Instability. In P. Arestis & M. Sawyer (Eds.), *Money, finance and capitalist development*. Cheltenham: Edward Elgar.

Lapavitsas, C. (2003). *Social Foundations of Markets, Money and Credit*. London: Routledge.

Lapavitsas, C. (2005). The social relations of money as universal equivalent: a response to Ingham. *Economy and Society, 34*(3), 389-403.

Lapavitsas, C. (2006). Relations of Power and Trust in Contemporary Finance. *Historical Materialism, 14*(1), 129-154.

Lapavitsas, C. (2013). *Profiting without producing: how finance exploits us all*. London: Verso.

Lapavitsas, C. (2016). *Marxist monetary theory: collected papers of Costas Lapavitsas*. Leiden: Brill.

Lapavitsas, C., Kaltenbrunner, A., Labrindis, G., Lindo, D., Meadway, J., Michell, J., . . . Vatikiotis, L. (2012). *Crisis in the Eurozone*. London: Verso.

Laws, D. (2010). *22 days in May: The birth of the Lib Dem-Conservative coalition*. London: Biteback.

Lawson, T. (2016). Social positioning and the nature of money. *Cambridge Journal of Economics, 40*(4), 961-996.

LLoyds Banking Group. (2010). Basel Committee on Banking Supervision ("Committee") Consultative Proposals to Strengthen Global Capital & Liquidity, BCBS 164 & 165. Retrieved from https://www.bis.org/publ/bcbs165/lloydsbankinggr.pdf

Lloyds Banking Group. (2011). Annual Report and Accounts 2011. Retrieved from https://www.lloydsbankinggroup.com/globalassets/documents/investors/2011/2011_lbg_randa.pdf

Lombardi, D., & Moschella, M. (2016). Domestic preferences and European banking supervision: Germany, Italy and the single supervisory mechanism. *West European Politics, 39*(3), 462-482.

Lombardi, D., & Moschella, M. (2017). The symbolic politics of delegation: macroprudential policy and independent regulatory authorities. *New Political Economy, 22*(1), 92-108.

London Stock Exchange. (2017). LSE Historical Statistics. Retrieved from http://www.londonstockexchange.com/statistics/historic/historic.htm

Lucarelli, B. (2010). Marxian theories of money, credit and crisis. *Capital & Class, 34*(2), 199-214.

Lucarelli, B. (2015). The Euro: A chartalist critique. *International Journal of Political Economy, 44*(1), 18-31.

Lyonnet, V., & Werner, R. (2012). Lessons from the Bank of England on 'quantitative easing' and other 'unconventional' monetary policies. *International Review of Financial Analysis, 25*, 94-105.

Lysandrou, P., & Nesvetailova, A. (2014). The role of shadow banking entities in the financial crisis: a disaggregated view. *Review of International Political Economy, 22*(2), 257-279.

Macartney, H. (2011). Crisis for the state or crisis of the state? *The Political Quarterly, 82*(2), 193-203.

Macartney, H. (2014). From Merlin to Oz: The strange case of failed lending targets in the UK. *Review of International Political Economy, 21*(4), 820-846.

Macpherson, N. (2017) *Interview with Lord Macpherson of Earl's Court, Permanent Secretary to the Treasury from 2005 to 2016/Interviewer: J. Evemy*.

Majone, G. (1996). *Regulating Europe*. Londons: Routledge.

Marazzi, C. (1995). Money in the world crisis: The new basis of capitalist power. In W. Bonefeld & J. Holloway (Eds.), *Global capital, the national state and the politics of money*. Basingstoke: Macmillan.

Marazzi, C. (2010). *The violence of financial capitalism*. Los Angeles: Semiotext(e).

Marcussen, M. (2009). Scientization of Central Banking: The Politics of A-politicization. *Central Banks in the Age of the Euro: Europeanization, Convergence and Power*.

Marx, K. (1934). *The eighteenth brumaire of louis bonaparte*. Moscow: Progress.

Marx, K. (1955). *The poverty of philosophy*. Moscow: Progres.

Marx, K. (1964). *Pre-capitalist economic formations* (J. Cohen, Trans.). London: Lawrence and Wishart.

Marx, K. (1970). *A contribution to the critique of political economy* (S. W. Ryazanskaya, Trans.). Moscow: Progress Publishers.

Marx, K. (1971). *Capital* (F. Engles Ed. Vol. 2). London: Lawrence & Wishart.

Marx, K. (1972). *Capital* (F. Engles Ed. Vol. 3). London: Lawrence & Wishart.

Marx, K. (1973). *Grundrisse*. London: Penguin.

Marx, K. (1974). *Capital* (F. Engles Ed. Vol. 1). London: Lawrence & Wishart.

Marx, K. (1977). *Economic and philosophic manuscripts of 1844*. Moscow: Progress.

Marx, K. (2009 [1844]). On The Jewish Question. Retrieved from https://www.marxists.org/archive/marx/works/1844/jewishquestion/

Maxfield, S. (1997). *Gatekeepers of growth*. Princeton: Princeton Unversity Press.

McCafferty, I. (2014). Achieving a sustainable recovery: where next for business investment? Speech given by Ian McCafferty, External Member of the Monetary Policy Committee, Bank of England Nottingham Business School 22 January 2014. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2014/achieving-a-sustainable-recovery-where-next-for-business-investment.pdf

McDowell, D. (2012). The US as 'sovereign international last-resort lender': the Fed's currency swap programme during the great panic of 2007–09. *New Political Economy, 17*(2), 157-178.

McNally, D. (2009). From financial crisis to world-slump: accumulation, financialisation, and the global slowdown. *Historical Materialism, 17*(2), 35-83.

McNamara, K. (1998). *The currency of ideas: monetary politics in the European Union*. Cornell University Press: London.

McNamara, K. (2002a). Managing the Euro: the European Central Bank. In J. Peterson & M. Shackleton (Eds.), *The institutions of the European Union*. Oxford: Oxford University Press.

McNamara, K. (2002b). Rational fictions: central bank independence and the social logic of delegation. *West European Politics, 25*(1), 47-76.

McNamara, K. (2002c). State building, the territorialization of money, and the creation of the american single currency. In D. M. Andrews, C. R. Henning, & L. W. Pauly (Eds.), *Governing the World's Money* (pp. 128-147). Ithaca: Cornell University Press.

McPhilemy, S. (2013). Formal Rules versus Informal Relationships: Prudential Banking Supervision at the FSA Before the Crash. *New Political Economy, 18*(5), 748-767.

McPhilemy, S. (2016). Integrating macro-prudential policy: central banks as the 'third force' in EU financial reform. *West European Politics, 39*(3), 526-544.

Mehrling, P. (2000a). Modern money: fiat or credit. *Journal of Post Keynesian Economics, 22*(3), 397-406.

Mehrling, P. (2000b). The State as Financial Intermediary. *Journal of Economic Issues, 34*(2), 365-368.

Mehrling, P. (2011). *The new lombard street: how the fed became the dealer of last resort*. Oxford: Princeton University Press.

Mehrling, P. (2016). Elasticity and discipline in the global swap network. *International Journal of Political Economy, 44*(4), 311-324.

Meiksins-Wood, E. (2002). *The origin of capitalism*. London: Verso.

Miles, D. (2012). Monetary policy and the damaged economy Speech given by David Miles, External Member of the Monetary Policy Committee, Bank of England At the Society of Business Economists Annual Conference, London 24 May

2012. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2012/monetary-policy-and-the-damaged-economy.pdf

Miles, D. (2017) *Interview with Professor David Miles, member of the MPC from 2009 to 2015, non-executive member of the FSA board 2004-2009./Interviewer: J. Evemy*.

Minsky, H. P. (2008). *Stabilizing an unstable economy*. New York: McGraw Hill.

Monetary Policy Committee. (2007a). Minutes of Monetary Policy Committee Meeting 3 and 4 October 2007. Retrieved from http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2007/mpc0710.pdf

Monetary Policy Committee. (2007b). Minutes of Monetary Policy Committee Meeting 5 and 4 April 2007. Retrieved from http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2007/mpc0704.pdf

Monetary Policy Committee. (2007c). Minutes of Monetary Policy Committee Meeting 5 and 6 December 2007. Retrieved from http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2007/mpc0712.pdf

Monetary Policy Committee. (2007d). Minutes of Monetary Policy Committee Meeting 6 and 7 June 2007. Retrieved from http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2007/mpc0706.pdf

Monetary Policy Committee. (2007e). Minutes of Monetary Policy Committee Meeting 7 and 8 February 2007. Retrieved from http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2007/mpc0702.pdf

Monetary Policy Committee. (2007f). Minutes of Monetary Policy Committee Meeting 7 and 8 March 2007. Retrieved from http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2007/mpc0703.pdf

Monetary Policy Committee. (2007g). Minutes of Monetary Policy Committee Meeting 9 and 10 May 2007. Retrieved from http://www.bankofengland.co.uk/publications/minutes/Documents/mpc/pdf/2007/mpc0705.pdf

Monetary Policy Committee. (2008a). Minutes of Monetary Policy Committee Meeting 5 and 6 November 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2008/minutes-november-2008.pdf

Monetary Policy Committee. (2008b). Minutes of the Special Monetary Policy Committee Meeting 8 October 2008. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2008/minutes-october-2008

Monetary Policy Committee. (2011). Minutes of the Monetary Policy Committee Meeting 5 and 6 October 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2011/minutes-october-2011

Monetary Policy Committee. (2013). Minutes of Monetary Policy Committee Meeting 31 July and 1 August 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2013/minutes-august-2013.pdf

Montgomerie, J., & Büdenbender, M. (2014). Round the houses: homeownership and failures of asset-based welfare in the United Kingdom. *New Political Economy, 20*(3), 386-405.

Moore, B. J. (1988). The Endogenous Money Supply. *Journal of Post Keynesian Economics, 10*(3), 372-385.

Moore, B. J. (1989). On the endogeneity of money once more. *Journal of Post Keynesian Economics, 11*(3), 479-487.

Moore, B. J. (2006). *Shaking the invisible hand: complexity, endogenous money and exogenous interest rates*. Basingstoke: Palgrave Macmillan.

Moran, M., & Macartney, H. (2009). Central banking and financial supervision: internationalization, Europeanization and power. In (pp. 337-354): Oxford University Press Oxford.

Morrison, J. A. (2015). Shocking intellectual austerity: the role of ideas in the demise of the gold standard in Britain. *International Organization, 70*(1), 175-207.

Moseley, F. (2016). *Money and totality*. Chicargo: Haymarket.

Murphy, E., & Senior, S. (2013). Changes to the Bank of England. *Bank of England Quarterly Bulletin Q1*, 20-28.

National Audit Office. (2010). Support to business during a recession. Retrieved from https://www.nao.org.uk/wp-content/uploads/2010/03/0910490_schemes.pdf

Nationwide. (2018). UK house prices adjusted for inflation. Retrieved from https://www.nationwide.co.uk/about/house-price-index/download-data#xtab:uk-series

NEDCo. (2007). Minutes of Committee of Non-Executive Directors (NEDCo) Meeting, Wednesday 13 June 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2007/court-2007

NEDCo. (2008a). Minutes of Committee of Non-Executive Directors - Wednesday 10 September 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20160601193309/http://www.bankofengland.co.uk/archive/Documents/archivedocs/codm/20072009/codm2008b2.pdf

NEDCo. (2008b). Minutes of Committee of Non-Executive Directors - Wednesday 15 October 2008. Retrieved from

http://webarchive.nationalarchives.gov.uk/20160601193309/http://www.bankofengland.co.uk/archive/Documents/archivedocs/codm/20072009/codm2008b2.pdf

NEDCo. (2008c). Minutes of Committee of Non-Executive Directors - Wednesday 16 April 2008. Retrieved from http://webarchive.nationalarchives.gov.uk/20160601193300/http://www.bankofengland.co.uk/archive/Documents/archivedocs/codm/20072009/codm2008b1.pdf

NEDCo. (2009). Committee of Non-Executive Directors (NEDCO) meeting Thursday 12 February 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/minutes/2009/court-2009.pdf

Nesvetailova, A. (2010). *Financial alchemy in crisis*. London: Pluto Press.

OECD. (2018a). Household debt (indicator). Retrieved from https://data.oecd.org/hha/household-debt.htm

OECD. (2018b). Household savings (indicator). Retrieved from https://www.oecd-ilibrary.org/economics/household-savings/indicator/english_cfc6f499-en

Office for Budget Responsibility. (2018). Asset Purchase Facility flows. Retrieved from http://obr.uk/box/asset-purchase-facility-flows/

Office for National Statistics. (2016). Office for National Statistics Website. Retrieved from https://www.ons.gov.uk/

Ollman, B. (2003). *Dance of the dialectic: steps in Marx's method*. Chicargo: University of Illinois Press.

Ollman, B. (2015). Marxism and the philosophy of internal relations; or, how to replace the mysterious ‘paradox’ with ‘contradictions’ that can be studied and resolved. *Capital & Class, 39*(1), 7-23.

Osborne, G. (2009a). George Osborne's speech to the Tory party conference - 6 October 2009. Retrieved from http://www.politics.co.uk/comment-analysis/2009/10/6/osborne-speech-in-full

Osborne, G. (2009b). Speech by the shadow chancellor to the Spectator's 'Paths Back to Recovery' conference - 15 September 2009. Retrieved from https://www.theguardian.com/politics/2009/sep/15/george-osborne-speech-full-text

Osborne, G. (2010a). “Building the economy of the future” speech by the Chancellor of the Exchequer, Rt Hon George Osborne MP, at Bloomberg - 17 August 2010. Retrieved from http://webarchive.nationalarchives.gov.uk/20130402211145/http://www.hm-treasury.gov.uk/press_37_10.htm

Osborne, G. (2010b). George Osborne: Making the banks work for the people - April 2010. Retrieved from https://conservative-speeches.sayit.mysociety.org/speech/601478

Osborne, G. (2011a). Autumn Forecast Statement by the Chancellor of the Exchequer, Rt Hon George Osborne MP. Retrieved from http://webarchive.nationalarchives.gov.uk/20130304161043/https://financialsanctions.hm-treasury.gov.uk/press_136_11.htm

Osborne, G. (2011b). Letter to Mervyn King, Governor of the Bank of England, dated 06 October 2011. Retrieved from http://webarchive.nationalarchives.gov.uk/20111203050905/http://www.hm-treasury.gov.uk/d/chx_letter_061011.pdf

Osborne, G. (2011c). Speech by the Chancellor of the Exchequer, Rt Hon George Osborne MP, at the Lord Mayor's dinner for bankers and merchants of the City of London, Mansion House. Retrieved from https://www.gov.uk/government/speeches/speech-by-the-chancellor-of-the-exchequer-rt-hon-george-osborne-mp-at-the-lord-mayors-dinner-for-bankers-and-merchants-of-the-city-of-london-mansi

Osborne, G. (2012a). Letter to Mervyn King, Governor of the Bank of England, dated 05 July 2012. Retrieved from http://webarchive.nationalarchives.gov.uk/20130802143125/http://www.hm-treasury.gov.uk/d/chx_letter_050712.pdf

Osborne, G. (2012b). Letter to Mervyn King, Governor of the Bank of England, dated 21 March 2012. Retrieved from http://webarchive.nationalarchives.gov.uk/20130802155016/http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/chancellorletter120321.pdf

Osborne, G. (2013a). Budget 2013: Chancellor's statement. Retrieved from https://www.gov.uk/government/speeches/budget-2013-chancellors-statement

Osborne, G. (2013b). Letter to Mervyn King, Governor of the Bank of England, dated 20 March 2013. Retrieved from http://webarchive.nationalarchives.gov.uk/20130802141305/https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221566/chx_letter_to_boe_monetary_policy_framework_200313.pdf

Padoa-Schioppa, T. (2004). *The Euro and its central bank: getting united after the union*. Cambridge MA: MIT Press.

Pagliari, S., & Young, K. L. (2014). Leveraged interests: financial industry power and the role of private sector coalitions. *Review of International Political Economy, 21*(3), 575-610.

Palan, R. (2014). Futurity, pro-cyclicality and financial crises. *New Political Economy, 20*(3), 367-385.

Palley, T. I. (1991). The Endogenous Money Supply: Consensus and Disagreement. *Journal of Post Keynesian Economics, 13*(3), 397-403.

Parliamentary Commission on Banking Standards. (2012). Oral Evidence Taken before the Parliamentary Commission on Banking Standards on Thursday 22

November 2012. Retrieved from https://publications.parliament.uk/pa/jt201314/jtselect/jtpcbs/27/121122.htm

Penikas, H. (2015). History of Banking Regulation as Developed by the Basel Committee on Banking Supervision in 1974 - 2014 (Brief Overview). *Banco de Espana.* Retrieved from https://www.bde.es/f/webbde/GAP/Secciones/Publicaciones/InformesBoletinesRevistas/RevistaEstabilidadFinanciera/15/MAYO%202015/restfin2015281.pdf

Plenderleith, I. (2012). Review of the Bank of England's Provision of Emergency Liquidity Assistance in 2008-09. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/news/2012/november/the-provision-of-emergency-liquidity-assistance-in-2008-9

Polanyi, K. (1944). *The great transformation: the political and economic origins of our time*. Boston: Beacon Press.

Prudential Regulation Authoirty. (2013). Supervisory Statement SS3/13: Capital and leverage ratios for major UK banks and building societies November 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2013/ss313

Quaglia, L. (2009). The 'British Plan' as a pace-setter: the europeanization of banking rescue plans in the EU? *Journal of Common Market Studies, 47*(5), 1063-1083.

Quaglia, L. (2010). *Governing Financial Services in the European Union: Banking, Securities and Post-Trading*. London: Routledge.

Quaglia, L. (2015). The politics of 'third country equivalence' in post-crisis financial services regulation in the European Union. *West European Politics, 38*(1), 167-184.

Quaglia, L. (2017). EU financial regulation, banking Union, capital markets union and the UK. *SPERI Paper, 38*.

Quaglia, L., & Royo, S. (2015). Banks and the political economy of the sovereign debt crisis in Italy and Spain. *Review of International Political Economy, 22*(3), 485-507.

Radice, H. (2014). Enforcing austerity in europe: the structural deficit as a policy target. *Journal of Contemporary European Studies, 22*(3), 318-328.

Rancière, J. (2004). *Disagreement: Politics and philosophy*. Minneapolis: University of Minnesota Press.

Rancière, J. (2014). *Hatred of democracy*. London: Verso.

RBS Group. (2008). Annual Report and Accounts 2008. Retrieved from http://www.investors.rbs.com/~/media/Files/R/RBS-IR/annual-reports/rbs-group-accounts-2008.pdf

RBS Group. (2010). Basel Committee for Banking Supervision Consultative Document 165: International framework for liquidity risk measurement, standards and

monitoring - Response by the Royal Bank of Scotland Group. Retrieved from https://www.bis.org/publ/bcbs165/rbosl.pdf

Reinhart, C., & Rogoff, K. (2009). *This time is different*. Oxford: Princeton University Press.

Reuten, G. (1988). The money expression of value and the credit system: a value-form theoretic outline. *Capital & Class, 35*, 121-141.

Reuters. (2007). Barclays again taps emergency facility. Retrieved from https://uk.reuters.com/article/uk-britain-bank-barclays/barclays-again-taps-emergency-facility-idUKL3032916020070830

Reuters. (2009). S&P cuts UK's rating outlook to negative - May 21, 2009. Retrieved from http://www.reuters.com/article/us-britain-rating-idUSTRE54K2A320090521

Reuters. (2015). Bond scarcity in repo markets signals ECB QE distortions. Retrieved from https://www.reuters.com/article/ecb-repo/bond-scarcity-in-repo-markets-signals-ecb-qe-distortions-idUSL5N0WF3AI20150317

Richard H. Timberlake, J. (1984). The central bank role of clearinghouse associations. *Journal of Money, Credit and Banking, 16*(1), 1-15.

Rights Issue Review Group. (2008). A Report to the Chancellor of the Exchequer: by the Rights Issue Review Group. Retrieved from http://webarchive.nationalarchives.gov.uk/+/http:/www.hm-treasury.gov.uk/d/pbr08_rightsissue_3050.pdf

Roberts, M. (2016). *The long depression: marxism and the global crisis of capitalism*. Chicargo IL: Haymarket Books.

Rubin, I. I. (1973). *Essays on Marx's theory of value*. Montreal: Black Rose Books.

Santander. (2010). Santander Views on Basel's "Liquidity Framework". Retrieved from https://www.bis.org/publ/bcbs165/santanderliquid.pdf

Sassoon, J. (2009). The Tripartite Review: A review of the UK's Tripartite system of financial regulation in relation to financial stability - Preliminary Report. Retrieved from https://www.conservatives.com/~/media/Files/Downloadable%20Files/tripartite-review-preliminary-report.ashx

Sayers, R. S. (1976). *The Bank of England 1891-1944*. Cambridge: Cambridge University Press.

Schumpeter, J. (1934). *The theory of economic development* (R. Opie, Trans.). Cambridge MA: Harvard University Press.

Schumpeter, J. (2006). *History of economic analysis*. London: Routledge.

Schwartz, H. M. (2000). *States versus markets: The emergence of a global economy* (second ed.). Basingstoke: Macmillan.

Schwartz, H. M. (2015). Banking on the FED: QE1-2-3 and the rebalancing of the global economy. *New Political Economy*, 1-23.

Seccareccia, M. (2017). Which vested interests do central banks really serve? understanding central bank policy since the global financial crisis. *Journal of Economic Issues, 51*(2), 341-350.

Seccareccia, M., & Lavoie, M. (2016). Income distribution, rentiers, and their role in a capitalist economy. *International Journal of Political Economy, 45*(3), 200-223.

Senior Treasury Offical. (2017) *Interview with Senior Treasury Official/Interviewer: J. Evemy*.

Senior Treasury policymaker. (2017) *Interview with Senior Treasury policymaker /Interviewer: J. Evemy*. PhD.

Sentance, A. (2011). The UK's inflation problem: selling England by the pound? Speech given by Andrew Sentance at the Institute of Economic Affairs 2011 State of the Economy conference, London 17 February 2011. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2011/the-uks-inflation-problem-selling-england-by-the-pound-speech-by-andrew-sentance

Sentence, A. (2009). Prospects for the British Economy after the Financial Storm, Speech given by Andrew Sentence, Member of the Monetary Policy Committee, Bank of England At the Royal Holloway, University of London 16 November 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2009/prospects-for-the-british-economy-after-the-financial-storm

Shafik, M. (2015). Goodbye ambiguity, hello clarity: the Bank of England's relationship with financial markets - Speech given by Minouche Shafik, Deputy Governor for Markets and Banking University of Warwick 26 February 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2015/goodbye-ambiguity-hello-clarity-the-boe-relationship-with-financial-markets.pdf

Shakir, T., & Tong, M. (2014). The interaction of the FPC and the MPC. *Bank of England Quarterly Bulletin Q4*, 396-406.

Shin, H. S. (2009). Refelctions on Northern Rock: the bank run that heralded the global financial crisis. *The Journal of Economic Perspectives, 23*(1), 101-120.

Siklos, P. L. (2002). *The changing face of central banking*. Cambridge: Cambridge University Press.

Singh, M. (2014). Collateral and monetary policy. In C. A. E. Goodhart, D. Gabor, J. Vestergaard, & I. Erturk (Eds.), *Central banking at a crossroads* (pp. 143-156). London: Anthem.

Smith, A. (1910). *The Wealth of Nations* (Vol. I). London: J.M. Dent and Sons.

Solomon, S. (1995). *The confidence game*. New York: Simon & Schuster.

SPERI. (2017). Frankfurt, Paris and Dublin: Post-Brexit Rivals to the City of London? *SPERI Global Political Economy Brief, 6*.

Stake, R. E. (1995). *The Art of Case Study*. Thousand Oaks, CA: Sage.

Standard Chartered. (2010). Letter to the Secretariat of the Basel Committee on Banking Supervision - 16 April 2010. Retrieved from https://www.bis.org/publ/bcbs165/standardcharter.pdf

Standard Chartered. (2011). Independnet Commission on Banking - A response from Standard Chartered Bank to the Interim Report July 2011. Retrieved from http://webarchive.nationalarchives.gov.uk/20120827150024/http://bankingcommission.independent.gov.uk/interimresponses/

Stanley, L. (2014). 'We're reaping what we sowed': everyday crisis narratives and acquiescence to the age of austerity. *New Political Economy, 19*(6), 895-917.

Stedward, G. (1997). On the record: an introduction to interviewing. In P. Burnham (Ed.), *Surviving the research process in politics*. London: Pinter.

Strange, S. (1998). *Mad money*. Manchester: Manchester University Press.

Streeck, W. (2014). *Buying time*. London: Verso.

Swyngedouw, E. (2014). Where is the political? Insurgent mobilisations and the incipient "return of the political". *Space and Polity, 18*(2), 122-136.

Taylor, J. B. (1999). A historical analysis of monetary policy rules. In *Monetary policy rules* (pp. 319-348). Chicago IL: University of Chicago Press.

Taylor, M. (2015). 'The fence and the pendulum' Speech given by Martin Taylor, External Member of the Financial Policy Committee, Bank of England Based on remarks given at the International Association of Credit Portfolio Managers conference, London Friday 22 May 2015. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2015/the-fence-and-the-pendulum.pdf

Thain, C. (2009). A very peculiar British crisis?: Institutions, ideas and policy responses to the credit crunch. *British Politics, 4*(4), 434-449.

The Bullion Committee. (1810). *Report together with minuetes of evidence and accounts of the Select Committee on the High Price of Gold Bullion*. Retrieved from: https://archive.org/details/reporttogetherwi10grea

The Gaurdian. (2010a). Mervyn King shaped tough deficit policy – but was it political bias? Retrieved from https://www.theguardian.com/business/2010/nov/30/mervyn-king-deficit-policy-neutrality

The Gaurdian. (2010b). Mervyn King warned that election victor will be out of power for a generation, claims economist. Retrieved from https://www.theguardian.com/business/2010/apr/29/mervyn-king-warns-election-victor

The Insolvency Service. (2014). Insolvency Statistics: October to December 2013. Retrieved from https://www.gov.uk/government/statistics/insolvency-statistics-october-to-december-2013

The Telegraph. (2009). Hector Sants calls time on FSA's 'light touch' regulation - 12 March 2009. Retrieved from http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/7431645/Hector-Sants-calls-time-on-FSAs-light-touch-regulation.html

TheCityUK. (2011). ICB Interim Report: Response to Consultation on Reform Options. Retrieved from http://webarchive.nationalarchives.gov.uk/20120827150024/http://bankingcommission.independent.gov.uk/interimresponses/

Thiemann, M. (2014). In the shadow of Basel: how competitive politics bred the crisis. *Review of International Political Economy, 21*(6), 1203-1239.

Thomas, G. (2010). Doing Case Study: Abduction not Induction, Phronesis not Theory. *Qualitative inquiry, 16*(7), 575-582.

Thomas, G. (2011). The Case: Generalisation, Theory and Phronesis in Case Study. *Oxford Review of Education, 37*(1), 21-35.

Thompson, E. P. (1965). The peculiarities of the english. *Socialist Register, 2*(2), 311-362.

Thompson, H. (2015). Germany and the Euro-zone crisis: the european reformation of the German banking crisis and the future of the Euro. *New Political Economy, 20*(6), 851-870.

Treasury Select Committee. (2008a). Banking Reform. Retrieved from https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/1008/1008.pdf

Treasury Select Committee. (2008b). Banking Reform: Government and Financial Services Authority Responses. Retrieved from https://publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/47/47.pdf

Treasury Select Committee. (2008c). Oral evidence taken before the Treasury Committee on Thursday 11 September 2008. Retrieved from https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/1033/8091101.htm

Treasury Select Committee. (2008d). Re–appointment of Mervyn King as Governor of the Bank of England: Oral and written evidence - 29 April 2008. Retrieved from https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/524/524ii.pdf

Treasury Select Committee. (2008e). *The Run on The Rock (Vol.i)*. Retrieved from

Treasury Select Committee. (2008f). The Run on the Rock: Government Response. Retrieved from https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/918/918.pdf

Treasury Select Committee. (2008g). The Run on the Rock: Written and Oral Evidence. Retrieved from https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/56/56ii.pdf

Treasury Select Committee. (2008h). Treasury Committee Thursday 26 June 2008 - Minutes of Evidence. Retrieved from http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/739/8062601 .htm

Treasury Select Committee. (2009a). Bank of England February 2009 Inflation Report - Oral and written evidence - Tuesday 24 March 2009. Retrieved from https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/376-i/376i.pdf

Treasury Select Committee. (2009b). Banking Crisis - Oral evidence Retrieved from https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/144/144i.pdf

Treasury Select Committee. (2009c). *Banking Crisis: dealing with the failure of the UK banks*. Retrieved from https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/416/416.pdf

Treasury Select Committee. (2009d). *Banking Crisis: regulation and supervision*. Retrieved from https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/767/767.pdf

Treasury Select Committee. (2009e). Minutes of Evidence - Bank of England May 2009 Inflation Report - 24 June 2009. Retrieved from https://www.publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/763/09062401.htm

Treasury Select Committee. (2009f). Minutes of Evidence - Bank of England November 2009 Inflation Report. Retrieved from https://publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/34/09112401.htm

Treasury Select Committee. (2009g). The Nationalisation of Northern Rock. Retrieved from https://publications.parliament.uk/pa/cm200809/cmselect/cmpubacc/394/394.pdf

Treasury Select Committee. (2009h). Oral and written evidence Tuesday 24 March 2009 - Bank of England February 2009 Inflation Report. Retrieved from https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/376-i/376i.pdf

Treasury Select Committee. (2010a). Minutes of Evidence - Bank of England November 2010 Inflation Report. Retrieved from https://publications.parliament.uk/pa/cm201011/cmselect/cmtreasy/634/101125001.htm

Treasury Select Committee. (2010b). Too important to fail— too important to ignore. Retrieved from https://publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/261/261i.pdf

Treasury Select Committee. (2010c). Too important to fail— too important to ignore - Oral and Written Evidence. Retrieved from https://publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/261/261ii.pdf

Treasury Select Committee. (2011). Minutes of Evidence - Quantitative Easing - 25 October 2011. Retrieved from https://publications.parliament.uk/pa/cm201012/cmselect/cmtreasy/1576/1576.pdf

Trichet, J.-C. (2010). State of the union: The financial crisis and the ECB's response between 2007 and 2009. *Journal of Common Market Studies, 48*(Annual Review), 7-19.

Tripartite Authorities. (2006a). Memorandum of Understanding between HM Treasury, the Bank of England and the Financial Services Authority. Retrieved from http://webarchive.nationalarchives.gov.uk/20060715231659/http://www.bankofengland.co.uk/about/legislation/mou.pdf

Tripartite Authorities. (2006b). Memorandum of Understanding between HM Treasury, the Bank of England and the Financial Services Authrority. Retrieved from http://www.bankofengland.co.uk/financialstability/Documents/mou.pdf

Tripartite Authorities. (2007a). Banking reform – protecting depositors: a discussion paper, October 2007. Retrieved from http://webarchive.nationalarchives.gov.uk/20081023134550/http://www.hm-treasury.gov.uk/d/consult_bankingreform111007.pdf

Tripartite Authorities. (2007b). Liquidity Support Facility for Northern Rock plc: Tripartite Statement by HM Treasury, Bank of England and Financial Services Authority -14 September 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/news/2007/september/liquidity-support-facility-for-northern-rock-plc

Tripartite Authorities. (2008a). Financial stability and depositor protection: further consultation, July 2008. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/243379/7436.pdf

Tripartite Authorities. (2008b). Financial stability and depositor protection: special resolution regime, July 2008. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/238704/7459.pdf

Tripartite Authorities. (2008c). Financial stability and depositor protection: strengthening the framework, January 2008. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/243413/7308.pdf

Tucker, P. (2004). Managing the central bank's balance sheet: where monetary policy meets financial stability. *Bank of England Quarterly Bulletin Autumn 2004*, 359-382.

Tucker, P. (2007). Central Banking and Political Economy: The Example of the UK's Monetary Policy Committee - Speech given by Paul Tucker, Executive Director, Markets and Member of the Monetary Policy Committee At the Inflation Targeting, Central Bank Independence and Transparency Conference, Cambridge 15 June 2007. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2007/central-banking-and-political-economy-the-example-of-the-uk-monetary-policy-committee.pdf

Tucker, P. (2009a). The Debate on Financial System Resilience: Macroprudential Instrument - Speech given by Paul Tucker, Deputy Governor, Financial Stability, Bank of England At Barclays Annual Lecture, London 22 October 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2009/the-debate-on-financial-system-resiliance.pdf

Tucker, P. (2009b). Regimes for Handling Bank Failures: Redrawing the Banking Social Contract Speech given by Paul Tucker, Deputy Governor, Financial Stability, Bank of England At the British Bankers' Association's Annual International Conference, London 30 June 2009. Retrieved from https://www.bis.org/review/r090708d.pdf

Tucker, P. (2009c). Remarks given by Paul Tucker, Deputy Governor, Financial Stability, Bank of England at the Turner Review Conference, The Queen Elizabeth II Conference Centre, London 27 March 2009. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2009/turner-review-conference.pdf

Tucker, P. (2013). Competition, the pressure for returns, and stability. In A. Dombret & O. Lucius (Eds.), *Stability of the financial system: illusion or feasible concept?* (pp. 200-213). Cheltenham: Edward Elgar.

Turner, A. (2012). *Economics after the crisis*. Cambridge MA: MIT Press.

Turner, A. (2016). *Between debt and the devil*. Princeton: Princeton University Press.

Turner, A. (2017) *Telephone interview with Lord Turner of Ecchinswell, Chairman of the FSA from 2008 to 2015/Interviewer: J. Evemy*.

Verdun, A. (1999). The role of the Delors Committee in the creation of EMU: an epistemic community? *Journal of European Public Policy*, *6*(2), 308-328.

Vickers, J. (2011). How to Regulate the Capital and Corporate Structures of Banks? - Keynote speech given on 22 January 2011 at the London Business School and University of Chicago Booth School of Business conference on Regulating Financial Intermediaries - Challenges and Constraints.

Vickers, J. (2016). Comments at the 2016 Monetary and Financial Policy Conference, Friday, 7 October 2016, Bloomberg, City Gate House, London.

Vilar, P. (1984). *A history of gold and money* (J. White, Trans.). London: Verso.

Walters, B. (2008). *The fall of Northern Rock*. Petersfeild: Harriman House.

Watson, M. (2003). The politics of inflation management. *The Political Quarterly, 74*(3), 285-297.

Watson, M. (2009a). 'Habitation vs. improvement' and a polanyian perspective on bank bail-outs. *Politics, 29*(3), 183-192.

Watson, M. (2009b). Headlong into the Polanyian Dilemma: The impact of middle-class moral panic on the British government's response to the sub-prime crisis. *British Journal of Politics & International Relations, 11*(3), 422-437.

Watson, M. (2013). New Labour's 'paradox of responsibility' and the unravelling of Its macroeconomic policy. *British Journal of Politics & International Relations, 15*(1), 6-22.

Weale, M. (2013). Forward guidance and its effects Speech given by Martin Weale, External Member of the Monetary Policy Committee, Bank of England At the National Institute of Economic and Social Research, London Wednesday 11 December 2013. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/speech/2013/forward-guidance-and-its-effects

Webb, S., & Webb, B. (1975). *Methods of social study*. Cambridge: Cambridge University Press.

Werner, R. A. (2014). Can banks individually create money out of nothing? — the theories and the empirical evidence. *International Review of Financial Analysis, 36*, 1-19.

Widmaier, W. W. (2007). Where you stand depends on how you think: economic ideas, the decline of the council of economic advisers and the rise of the Federal Reserve. *New Political Economy, 12*(1), 43-59.

Wilson, R. (2010). *5 days to power: the journey to coalition britian*. London: Biteback.

Winters, B. (2012). Review of the Bank of England's Framework for Providing Liquidity to the Banking System. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/news/2012/november/the-banks-framework-for-providing-liquidity-to-the-banking

Wood, J. H. (2005). *A history of central banking in Great Britain and the United States*. Cambridge: Cambridge University Press.

Wood, M., & Flinders, M. (2014). Rethinking depoliticisation: beyond the governmental. *Policy & Politics, 42*(2), 151-170.

Wray, L. R. (1998). Modern money. *Levy Institute Working Paper, 252*.

Wray, L. R. (2000). The neo-chartalist approach to money. *Levy Institute Working Paper, 10*.

Wray, L. R. (2015). *Modern money theory: a primer on macroeconomics for sovereign monetary systems*. London: Springer.

Yates, T. (2016) *Interview with Professor Tony Yates, Senior Advisor, Monetary Analysis Division from 2008 to 2013/Interviewer: J. Evemy*.

Yin, R. K. (2009). *Case study research: design and methods [eBook]* (3rd ed.). London: Sage.

Young, K. L. (2012). Transnational regulatory capture? An empirical examination of the transnational lobbying of the Basel Committee on Banking Supervision. *Review of International Political Economy, 19*(4), 663-688.

Zelizer, V. (2000). Fine tuning the Zelizer view. *Economy and Society, 29*(3), 383-389.

Zysman, J. (1984). *Governments, markets, and growth: financial systems and the politics of industrial change*. London: Cornell University Press.