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The Emergence of 'Auditorial Central Banking':

An Inquiry into the Relation between Central Banking and the Financial Markets since the End of Bretton Woods, with particular reference to the Bank of England.

Christopher Houghton Budd

Ph.D Thesis

City University Business School
Faculty of Finance

March 2002

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ACKNOWLEDGEMENTS

This project would not have been possible without the contributions of many people, who, knowingly or otherwise, provided material and inner encouragement.

For financial assistance:

Associative Economics Fund, the ESRC, Hermes Trust, Triodos Bank, and a number of generous individuals around the world: Josianna Arripol, Elizabeth Bracher, Iordan Dimitrov, Deborah Hawkins, Carlos Jaime Loch, Fatima Rahal, and Jill and Mark Smith.

For coaching me in the finer points of modern economics and modern banking, challenging my theories, advising on the travails of doing doctoral research, exploring with me some of the more controversial concepts used in the dissertation, or simply disagreeing with me:

Gaudenz Assenza, Marc Desaules, Yukzel Gormez, Anita Grandjean, Michael King, Michael Oliver, Rosa Letelier, Paul Mackay, John Stein, and Tamara Slayton.

For enduring my prolonged absences, frequent irritability, and many other disbenefits consequent on having a doctoral candidate in the midst of family life, but also providing unswerving encouragement and support:

Tessa, Linzi and Silas

For the risk he took in becoming my supervisor and for his valuable contribution in that regard:

Professor Forrest Capie

Finally, a word of thanks to those who, as audience and participants in many lectures and workshops around the world, gave me the possibility to air my views and rehearse my arguments, thereby keeping me connected to the realities of the lay community.

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ABSTRACT

This dissertation considers the changing relationship between central banking and the financial markets since the collapse of the Bretton Woods pegged exchange rate system in late 1973. It does so by way of three particular ideas. Firstly, the image of central banking having become 'auditorial', namely independent of government and financial institutions and functioning by increasingly indirect means consonant with the rise of virtual finance. Secondly, the intuition that today's global financial architecture is essentially made up of three elements – trade, finance and central banking – and that these are analogous to the three main elements of accounting – income and expenditure statements, the balance sheet, and the closing entries. Thirdly, the device of a theorem derived from Keynes's 1923 *Tract on Monetary Reform*, expressed in simple sketch form.

The whole study is informed by the view that events since 1973 represent a return to the key question posed at the end of WW1: What follows the gold standard? The answer then was (or could have been) to give the central bank autonomy albeit in a democratic setting as a foil to freedom in the financial markets. Instead, for the greater part of the twentieth century, humanity embarked on a great detour, which saw the generalised capture of central banks by government (central bank dependence) and extensive interventionist regulation. Since the 'closing of the gold window' in 1971, the rise of central bank independence and the growing dominance of the financial markets suggest this is the 'truer' course of history, which is what the research seeks to map.

The topic survey grounds the research in current debates, beginning with a discussion of Keynes's *Tract*, which remains a much-referenced work for many authors in this field. It then surveys the many key topics related to the thesis and ends by distilling the concept of auditorial central banking out of the central bank independence literature.

The aim of the research is to explore the hypothesis that auditorial central banking represents the underlying trend of central bank evolution, as evidenced by four main and two secondary case studies – the Banco Central do Brasil, the Reserve Bank of New Zealand, the Federal Reserve Bank of the United States and the Bank of England, and the European Central Bank and the Bank of International Settlements.

Of particular interest is whether the Bank of England is representative of auditorial central banking and whether its evolution has significance and replicability beyond the UK context.

KEY TO ABBREVIATIONS

ACB – auditorial central banking

BCB – Banco Central do Brasil

BIS – Bank of International Settlements

BOE – Bank of England

FRS – Federal Reserve System of the USA

ECB – European Central Bank

ESCB – European System of Central Banks

IMF – International Monetary Fund

MPC – Monetary Policy Committee

RNZ – Reserve Bank of New Zealand

GLOSSARY OF TERMS

Auditorial Central Banking. The central bank operating as a direct agent of society, answerable to parliament (or its equivalent), independent of both government and financial institutions, and enjoying both instrument and goal independence.

Central Bank Independence. The central bank as an agent of government with an increasing focus on monetary policy.

Dependent Central Banking. The central bank as a department of government, with a wide range of functions related to the latter's many economic roles and objectives.

Emancipation of the Financial Markets. The twin processes of 'regulatory avoidance' (the inherent tendency of the financial markets to be free of controls or taxation) and 'deregulation' (the policy shifts whereby the financial markets are released from such regulation where it has been imposed).

Free Banking. Competitive issue of money without external regulation. Regulation by market forces, in other words.

Globalised Monetary Policy. Globalisation has given rise to a form of homogeneous, supranational monetary policy, especially central bank independence and single objective monetary policy, which is more attentive to global than domestic economic considerations.

Inherent Regulation. Regulation of financial markets in conformity with economic and business precepts.

Monetary Reformism. The concept of socialising money issue and credit creation, not to be confused with 'monetary reform' as used by Keynes and others.

Statism. The extensive role of government in economic affairs, not only as a major 'player', but as the arbiter and setter of policy and as an intervener.

Virtual Finance. 'Virtual finance' refers to three distinct but inter-related phenomena of recent times: information technology, the growth in nonbanks and private money issue, and the emergence of e-money – both narrow (*electronic payment* methods, such as debit cards and Mondex) and wide (*electronic issue* of private money outside the banking system).

OVERVIEW OF REPORT

This dissertation represents research carried out into the current evolution of central banking. Its focus is explicit in the title: The emergence of auditorial central banking - an inquiry into the relation between central banking and the financial markets since the end of Bretton Woods, with particular reference to the Bank of England.

The guiding intuition is that the increasing globalisation of economic life - characterised by the homogenisation of monetary policy, the emancipation of financial markets, and the rise of virtual finance - is reflected in central banking acquiring an increasingly indirect or virtual nature, for which the term 'auditorial central banking' has been coined. In its most obvious outer expression, auditorial central banking is about the central bank becoming analogous to the judiciary – a societal institution in its own right that reports to parliament directly. Less obviously, it is about the nuances and details that are required if such an entity is not only to be outwardly politically independent, but shot through with transparency and objectivity in regard to its inner workings, governance and finance. The thesis holds that in many existing cases something of auditorial central banking is already in existence, although not, of course, understood in such terms.

The report has eight chapters:

Chapter One is *introductory*. It describes the intuition, clarifies terminology, and locates the topic in modern economic history.

Chapter Two sets out the *theoretical framework and methodology* used in the research. The main proposition examined is that auditorial central banking 'best' explains the general response of modern central banking to the globalisation of economic life. This is done by considering four main and two secondary case studies in the light of a model auditorial central bank and its supporting theory.

Chapter Three, the *topic survey*, surveys the literature in the fields of direct relevance to the topic, identifying thereby the gap in the literature this research seeks to fill; its contribution to knowledge.

Chapter Four details how the *research model* (representing the auditorial central banking hypothesis) was constructed by way of a detailed survey of CBI indicators, the constitutional basis of central banks, and the cases' published accounts.

Chapter Five consists of the *findings*, which took four forms: structural profiles, derived from constitutional, legal and other documents; accounts, based on published accounts; central banker interpretations, from interviews with incumbent and former senior central bank officers; and chronologies of financial liberalisation and regulatory change, derived from histories of the countries concerned. It then

reports the *analysis* of the results, which show strong support for the hypothesis that auditorial central banking is an emergent paradigm, with most cases approximating the ACB model and any divergence due in the main to governmental involvement, especially in regard to seignorage.

Chapter Six, the *discussion*, interprets the results and considers their significance in respect of the starting theory. It then looks at questions concerning the replicability of the Bank of England.

Chapter Seven provides a *summary* of the conclusions, makes policy recommendations, and outlines further work, before concluding with some final reflections.

1: INTRODUCTION

1.1 Motivation, Reasons and Intentions

The primary motivation for this research combines a quest for cross-party (and, therefore, apolitical) consensus in regard to the management of economic life and a practical interest in future investment scenarios. It contemplates a world in which individual and corporate behaviour internalises the precepts associated with central bank independence through a mix of market economics and heightened economic awareness and responsibility on the part of economic actors generally.

1.2 Topic, Originality and Significance

The topic, chosen because of its pivotal nature, is the longer-term evolutionary response of central banking to the globalisation of modern economic life as evinced since the end of Bretton Woods. The aim is to understand better the underlying processes of modern economic evolution in order to map possible lines of development in the 21st century. The originality and significance of the topic lie in the uniqueness of the approach taken – the theory of 'auditorial central banking' (see Section 1.5). The research is relevant to both macro economic policy and micro investment planning, and thus of use to commentators, policy makers and investors alike.

1.3 Period of Study and Historical Background

The main period of study, from 1973 on, was chosen to ensure topicality, and to consider developments that in many ways mark a culmination of long-running historical processes. The emergence of the modern financial system in the 19th century gave rise to two specific institutions – central banks and the financial markets. Their importance is very marked in our times, even though their significance has been overlain by the statism[1] that characterised much of the 20th century, particularly during the period 1914 - 1973. Nominally, at least, the end of Bretton Woods marked a final departure from gold.[2] By the end of the 1960s, the world-wide liberalisation of capital was beginning its ascendance. The advent of the eurodollar (beginning in 1949), the growing inability of the US dollar to carry alone the burden of reserve currency status, global liquidity problems, and other financial phenomena, among them the Viet Nam war, had made the Bretton Woods system unworkable. '[It] was finally abandoned when it was perceived to be holding back international capital growth...'[3]

[1] See glossary.
[2] In fact, the USD valued at 35 per ounce of gold lives on in the SDR, which has the same value.
[3] Financial Times, 24 March 1998, Global Stock Exchanges. See also Appendix 1: The End of Bretton Woods.

Since that time, the world's financial system has been characterised by the accelerating development of globally-operating, unregulated financial markets, driven by the twin processes of regulatory avoidance (the inherent tendency of the financial markets to be free of controls or taxation) and deregulation (the policy shifts whereby the financial markets are released from such regulation where it has been imposed). In this study, the two are combined in the term 'the emancipation of the financial markets', which is used in order to distinguish the twin nature of the phenomenon from the more usual, but narrower concept of deregulation only. Kindleberger (1990), for example, noted, '[d]eregulation may be said to have begun with the establishment of the eurocurrency market,... an institution that evolved ... out of private initiatives rather than governmental intention. This consisted primarily of foreign banks dealing in foreign currencies that the British authorities decided to leave unregulated,... [and became] the thin end of the wedge for further deregulation...' (279)

At the same time, there has been a gradual homogenisation of the modality of central banking, especially single objective monetary policy and central bank independence (Khoury, 1990). World-wide movements of capital have resulted in global economic considerations overriding domestic or national economics in terms of both policy influence and practical effect (Harvey, 1989; Courtney, 1992; Agnew, 1994). Globalisation has given rise to a form of homogeneous, supranational monetary policy, which is more attentive to global than domestic economic considerations (Killick 1995).[4] This process is associated with central bank independence, a term that may be imprecise, however, both in the sense that it is variously defined and that it can evoke an image grander than its technical meaning – see Section 3.2.1.

The emancipation of the financial markets and the globalisation of monetary policy are accompanied by a third phenomenon, virtual finance. Given today's variety of interpretation of this term, it is well to make its meaning clear at the outset. As used here, 'virtual finance' refers to three distinct but inter-related phenomena of recent times. In outline, these are, information technology, the growth in nonbanks and private money issue, and the emergence of e-money – both narrow (electronic payment methods, such as debit cards and Mondex) and wide (electronic issue of private money outside the banking system). For a fuller discussion see Section 3.1.7.

1.4 Concerning Causation

Although the subject of this research - the response of central banking to economic globalisation – inevitably entails understanding the relationships between central banking, the financial markets, and virtual finance, these relationships are not the direct focus of this study. The question as to whether any one of these phenomena is caused by the other(s) is a vexed and possibly wrong one. It is often held, for example, that the development of central bank independence is in response to the emancipation of the financial markets and that the causality runs from the financial markets to central banks, as with the 1961

[4] Killick and his colleagues employ the term 'flexible economy' to describe accommodation of domestic economic and monetary policy to the requirements of global financial processes.

introduction of Certificates of Deposit (CDs) by Citicorp to circumvent the United State's Regulation RQ, which capped interest rates on time deposits.[5]

Insofar as this acted as a spur to relaxation of Regulation Q and wider deregulation, however, it can also be argued that the causality runs from central banks to the financial markets, as when capital controls are relaxed in order to compete with 'off-shore' jurisdictions, or when Britain encouraged the setting up of foreign banks in London in the early 1960s in order to promote London as Europe's premier international financial centre.

Llewellyn and Milner (1990) suggest that these developments are part of a chicken-egg relationship between rising private and declining official finance: 'The origins of the Eurocurrency markets predate the decline in importance in official financing of payments imbalances and the demise of the Bretton Woods system. It would be wrong therefore simply to interpret the growth of international banking as either cause or consequence of the emergence of what some have called a 'non-system'.' (8) Meerschwam (1991), for example, says that '...the breakdown in financial boundaries ... has not been one-directional,' (282-3) while Swary and Topf (1992) note that, 'indeed, it is sometimes difficult to distinguish the direction of causality in the dynamics of deregulation, financial innovation, and regulatory response.' (340)

With modern financial phenomena, therefore, causality is often both two-way and recursive, bringing to mind Soros's[6] (1987) further concept of 'reflexivity': 'When [two] functions operate at the same time, they interfere with each other... Instead of a determinate result we have an interplay in which both the situation and the participants' views are dependent variables so that an initial change precipitates further changes both in the situation and in the participants' views. I call this interaction 'reflexivity', using the word as the French do when they describe a verb whose subject and object are the same.' (142)

It is for this reason that this study assumes that all three developments - the advent of homogenised monetary policy, the emancipation of the financial markets, and the rise of virtual finance – reflect a common underlying phenomenon: the need to predicate the overall management of modern economic life on systemic and economic rather than sectoral and political precepts, and the need, therefore, for those who undertake this role to do so as societal agents in their own right, independently of the behest of any particular sector. By this token, the central question of this research is not what is causing this development, but does auditorial central banking (defined below) account for the shape of central banking at the dawn of the 21st century, as evinced by a representative range of central banks?

---

[5] See Chart 2: 'Main Event' Chronology of Financial Liberalisation.

[6] George Soros is a well-known hedge fund manager, who has written extensively on the nature of modern finance. He is mentioned because his knowledge is born of practical experience in the financial markets, and because his biography puts one in mind of Keynes's similar prominence as both economic theorist and market participant.

1.5 Auditorial Central Banking

Key to this study is the idea that the recent ascendancy of central bank independence is itself a reflection of the three processes just mentioned. It is not, moreover, a process that can rest in itself, but is part of an on-going historical development leading to the transformation of the central bank as a creature of government operating directly, into a societal entity in its own right operating indirectly, that is, an 'auditorial central bank'.

The term is invented and not altogether satisfactory, mainly because of its awkwardness. It is not easy however, to find a word that encapsulates what is meant, the wide-ranging nature of which is described below and elsewhere in this dissertation. Previous versions were 'CBI[2]', 'Thorntonian central banking', and 'heightened central banking', none of which sufficed. Researchers at the Bank of Finland, suggested 'contestable central banking', after Baumol, et. al., but this seemed inappropriate. Finally, 'indirect central banking' was considered, but also discounted. Reliance is therefore placed on the reader not becoming distracted by the inadequacy of the word auditorial, but on his willingness to see beyond it to the phenomena it refers to.

Insofar as, when independent, central banks are currently key institutional vehicles for maintaining systemic health, they become the natural focus of this study, especially because the emancipation of the financial markets and the rise of virtual finance are bringing the future of central banks into question. Are we witnessing 'the apogee of the power of central banks'?[7] Are they all to become independent of government or will there be a return to dependent central banking? Or are they destined to be replaced by alternative monetary authorities (e.g. currency boards), monetary reformism, or free banking?

Behind these questions is the thought that central banks will, or at least could, not only become fully independent of governments, although remaining answerable to parliament,[8] but also of financial institutions. The concept harks back to Henry Thornton's (1802) image of the central banker as one who knows that 'to suffer either the solicitations of merchants, or the wishes of government, to determine the measure of the bank issues, is unquestionably to adopt a very false principle of conduct.' (259) It is this underlying need for 'double independence' (see Section 3.1.3) that this study terms 'auditorial central banking' (ACB):

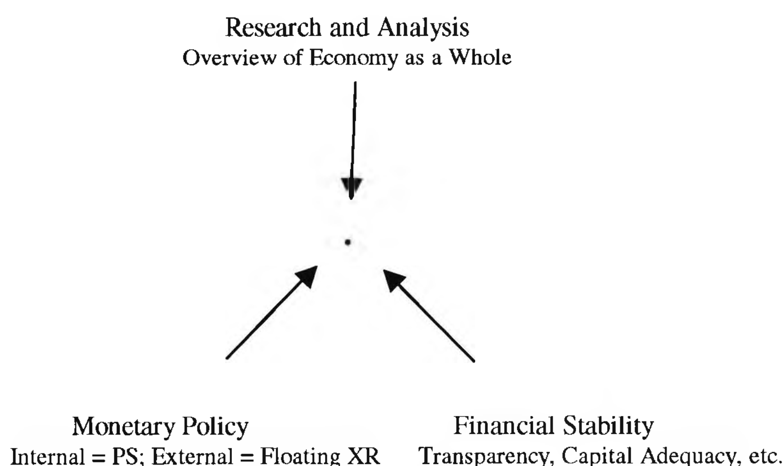
> *the central bank operating as a direct agent of society, answerable to parliament (or its equivalent), independent of both government and financial institutions, and enjoying both instrument and goal independence.*

[7] The words are from Mervyn King (1999), Deputy Governor of the Bank of England.
[8] In this work 'parliament' includes 'congress' and other equivalent constructs.

It belongs to this thesis to review the continued appropriateness and relevance of central banks, especially as agents of government economic policy, and to see the central bank as a reflector rather than instigator of economic activity. This is not an abolitional image in the sense that Hayek (1990), for example, puts it when referring to 'the disappearance of central banks as we know them.' (105) For one can ask whether disappearance necessarily means disbandment. Could it not equally mean metamorphosis – the adoption by central banks of a role in society that is neither as an agent of government nor of financial institutions?

In taking on such a role it seems probable that the central bank will go from a 'speaking' organisation to a 'listening' one – hence *audit*orial. The word is invented, of course, an allusion to the fact that central banks are having to work by increasingly indirect (signalling) means, inviting the kind of mature financial behaviour they have otherwise sought to engineer, and calling on economic actors to enact of their own volition what previously was effected by direct intervention. It is this image of virtual finance as the concomitant and indeed facilitator of greater economic awareness on the part of individual actors, combined with the greater immediacy and directness of their actions, that further prompts the idea of the modern central bank having to adopt an increasingly indirect, auditorial modality.

Although the ACB concept will be fully elaborated in the course of this dissertation, its outline can be indicated already. The main purpose of an auditorial central bank is to maintain stability in the standard of value of money, sometimes described as monetary integrity, and the monetary equivalent of ensuring an inch remains an inch.[9] It does this through three distinct but inter-related functions: (1) conducting monetary policy by focusing on price stability in the context of *universally* floating exchange rates, (2) based on research and analysis that reflects a systemic view of the economy as a whole, and (3) in a context of financial stability engendered by increased transparency and objectivity in the working of finance. Sketch 1 illustrates the concept:



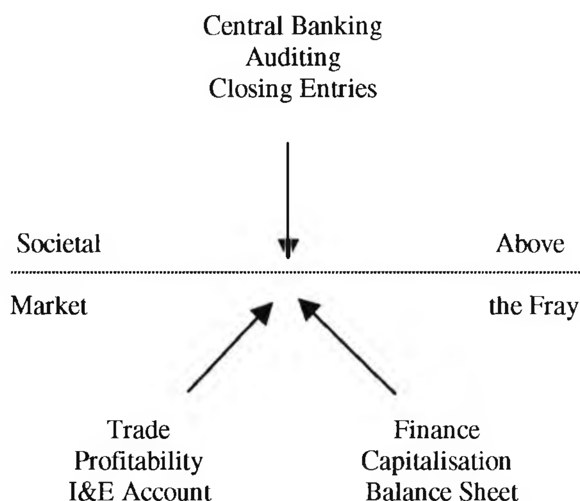
Sketch 1.1: Auditorial Central Banking

[9] Hayek (1990) speaks variously of 'a value whose unit of account is approximately stable', 'stable value of money', and 'stable purchasing power'.

1.6 The Accounting Analogy

'Auditorial' also has accounting connotations in the sense that the essential structure of modern economic life can be seen analogously to accounting. At its simplest, accounting has three main elements – income and expenditure statements, the balance sheet, and the closing entries - which can be seen as reflections of trading, capitalisation, and the on-going evaluation of results (auditing, in other words).

'Auditing' is here understood not as a task undertaken for tax purposes or in the conflict-of-interest sense of auditing-consultancy firms,[10] but in order to make conscious to the actors themselves and visible to society generally the nature and effects of economic activity. It is in terms of this image that a role for central banks can be envisaged that locates them 'above the fray' of the market,[11] and connects them to the maintenance of systemic economic health. Such a task entails seeing the whole picture, in terms of which society makes its 'closing entries', while leaving trade and finance, profitability and capitalisation, subject to the market (see Sketch 1.2).



Sketch 1.2: The Accounting Analogy

In a world increasingly predicated on economic competition, one can, of course, debate whether a monetary authority would be needed were economic life fully marketised and were the issue of money itself subject to competition. This prospect – in effect, unregulated or free banking - is readily dismissed

[10] This is said with awareness that the auditing profession may neither share this view nor live up to it. It is felt to be realistic, even so. Indeed, there is currently (October 2000) an important struggle underway in the US at the Congressional level concerning the attempt to separate consulting from auditing. The argument for this is a clear conflict of interest, but the opposition from the consulting firms is intense. In passing, Robert Bruce drew attention to the same issue when he reported on changes to redress the understatement of leasing and other funding items on balance sheets, *The Times*, 16 December 1999. One could also mention the cartel-like operations of the 'big five' in the UK.

[11] The image is from Capie, Goodhart and Schnadt: 'Central bankers are, perhaps, seen as having more in common with the judiciary, than with politicians or commercial bankers; and are perceived as both technically expert, above the fray of self-seeking, and a necessary agent (of democratic government) for imposing order on a potentially unruly financial system.' The Future of Central Banking, Cambridge University Press, 1994, p.91.

by central bankers, of course. Nevertheless, an important consideration of this thesis is whether current events imply a transitional concept between central banking and free banking.

Viewed against current events, the accounting analogy has three main implications, which this research explores. First, that central banking needs to abstract itself from direct involvement in the running of the economy and adopt a 'contextual' role, to use a term from free banking literature (Horowitz, 1992). Second, such a development, endogenous and complementary in character rather than exogenous and interventionist, is consonant with modern financial markets. Thirdly, that the Bank of England is representative of this image, on account of its strong relationship with world trade and global finance.

Being intuitive, the idea of auditorial central banking can, of course, be a source of bias and needs to be monitored in this respect. Yet 'facts remain sterile until they are evaluated in the light of a theory' (Cantore 1991:55). The starting point cannot but be 'intrepidly subjective' (Zonabend 1992:53), however, so the challenge is to travel to a rigorously objective end point, while beginning the journey, not by suppressing the intuition underlying this study but by making it explicit.

Finally, modern economics does not take its cue from accounting, of course, for which reason the idea of an accounting analogy is placed *outside* the research proper. Even so, it is not a fanciful notion. Hanke (2001) draws particular attention to it when, invoking the memory of Sir John Hicks, he discusses its importance in evaluating central bank balance sheets, a theme considered in detail in Section 4.2.1. Hayek also gives it important status when describing how the economist's task, of making money stable, is, and is best judged by, the need 'to ensure that the stock of capital of a business is not eaten into and [that] only true net gains [are] shown as profits available for disposal....' (69)

2: THEORETICAL FRAMEWORK, STRUCTURE AND METHODOLOGY

Although it was at first an intuition, the idea that the globalisation of economic life is leading central banks into wider central bank independence or, as termed here, auditorial central banking, became more concrete when the general question of different approaches to central banking was considered. These approaches can be characterised as conventional central banking, alternative monetary authorities, monetary reformism, and free banking. As the topic survey will show, it was tempting to consider the various approaches as rival hypotheses in a formal sense, yet they clearly do not amount to this in terms of current practice. Investigation of alternative monetary authorities and monetary reformism showed them to be in effect subsets of conventional central banking, while free banking, though possessing great cogency in argument, has so far been 'confined', proponents would say unfairly, to non-systemic experiences some two hundred years ago.

It became clear that the diversity of approach is more apparent than real, therefore, with the main 'choice' remaining that between central banking (ranging from statist/dependent to market/independent versions) and free banking, the latter implying the absence or abolition of central banks. Given that this is a study of how central banks have responded to the globalisation of economic life, however, the latter scenario makes no practical sense, since none, obviously, has dismantled itself in favour of free banking. The research thus pursued the original idea of a third possibility, namely auditorial central banking.

2.1 Guiding Theory

Having established the auditorial central banking perspective of this research (Chapter 1), this section gives it more formal expression as the guiding theory.

The ACB theorem should not be judged in terms of one's familiarity with it, but by its 'goodness of fit' (Miller), that is to say, its relevance to concrete current issues concerning monetary policy and the financial markets, and its ability to provide useful insights into the future evolution of central banking.

In regard to the financial markets, the ACB theorem assumes that external controls are neither possible nor desirable, but that if the financial markets are to be regulated this can only be by 'inherent' means (in the sense given in Section 3.1.10). The financial markets are regarded as essentially benign, therefore, but requiring a clearer framework in which to operate in order to avoid the negative 'side effects' that many deem them responsible for. In this view, central banks remain 'above the fray' their main purpose being to prompt clear, accurate and meaningful reporting of the markets' activities.

In ACB theory, therefore, the closer a central bank approximates the auditorial central banking concept, the more apt will be its interface with the financial markets and virtual finance. A main object of this

research was, therefore, to examine this proposition through case studies of a full range of central banks. The novelty of the concept notwithstanding, the research assumed that auditorial central banking is rooted in today's social and historical facts, an assumption born out by the topic survey, and one that it is as well to make explicit (Miles and Huberman 1994), since it underlies the propositions advanced in regard to the phenomena being studied.

2.2 Research Questions

The wide-ranging notion of this inquiry was given a specific focus by way of the following questions concerning auditorial central banking generally:

> *Have central banks responded auditorially to the globalisation of economic life with its three representative phenomena – the globalisation of monetary policy, the emancipation of the financial markets, and the rise of virtual finance?*
>
> *Is auditorial central banking implicitly or explicitly present in existing arrangements?*
>
> *Does auditorial central banking occur in different circumstances?*
>
> *Is auditorial central banking predictable?*

The focus was made even tighter by asking two further questions concerning the Bank of England:

> *Is the Bank of England representative of auditorial central banking?*
>
> *Is the Bank of England's evolution replicable beyond the UK context?*

2.3 Hypothesis and Testing

The hypothesis advanced was that auditorial central banking 'best' explains the general response of modern central banking to the globalisation of economic life. An 'adventure of the mind' (Medawar, 1964), the research was intended to test the 'intuitive expectation' of the hypothesis in the light of unbiased evidence (Philips and Pugh, 1993). To that end, it was designed to underpin its initially abstract considerations with concrete facts gained in accordance with the twin pillars of scientific enquiry – logical reasoning and objective observation.

The hypothesis was formulated as a set of propositions, which were then examined across a representative range of central banks:

P1: Assuming that auditorial central banking 'explains' the way that central banking is responding to the globalisation of economic life, and

P2: given the manner in which Case 'X' is structured, manages its accounts, understands itself (interviews), and has recently evolved (chronologies),

P3: Case 'X' is (is not) an auditorial central bank.

The propositions were tested in the following way:

P1 was expressed as the ACB model with its two parts – structure and accounts (Chapter 4)

P2 consisted of the findings in each case in terms of its structure, accounts, interviews, and chronologies (Chapter 5)

P3 is represented by the analysis of the cases (Section 5.5 and Chapter 6).

The whole gave the context for considering the further questions related to the Bank of England (Section 6.4)

The framework below illustrates this procedure, with the per case columns showing how the case 'scores' in terms of matching (M), approximating (A), tending towards (T), or diverging from (D) the ACB model (see Section 6.4 for actual result).

	BCB	RNZ	FRS	BOE	ECB	BIS
Test: Structure Type of Variable: Constitutional, Institutional and Operational Features Number of Variables: 37	.	.	.	.	.	.
Test: Accounts Type of Variable: Income and Expenditure Statements and Balance Sheets = Relation to Money Flows Number of Variables: 12	.	.	.	.	.	.
Test: Interviews Type of Variable: Central Bankers' Interpretations = Operating Precepts Number of Variables: 17	.	.	.	.	.	.
Test: Chronology Type of Variable: Contexts in terms of increased financial liberalisation and regulatory change Number of Variables: 1	.	.	.	.	.	.
RESULT	.	.	.	.	.	.

Table 2.1: Results Matrix (Concept)

2.4 General Structure of the Research

Four main considerations influenced the design of the research:

1. The wish to conduct a study that was substantial and of relevance to the future of central banking, without it being hindered or impaired by non-research constraints such as the availability of money and time. The only 'casualty' in this regard was the exclusion of an Asian case (see Note in Section 2.5.2).

2. The intention to consider the subject from as wide a variety of viewpoints as represent the main current-day approaches to central banking, and to marshal as much evidence as possible. This was achieved through the discussions on central banking, alternative monetary authorities, monetary reformism, and free banking in the topic survey, and by looking at the six cases from four perspectives and in terms of central bank type, levels of economic management (national, regional and global), and diverse politico-cultural contexts - see Sections 2.5.1 and 2.5.2.

3. The importance of detailed profiling of the case studies in order to avoid superficial meanings or simplistic references to the term 'central banking' as understood in this research, and in order to capture and classify as many details as possible about the case studies. Because of its comprehensiveness, the ACB model (Chapter 4) was the main device used to meet this requirement.

4. The need to establish a reversible chain of evidence linking the research questions, data, and conclusions in order to make explicit the derivation of evidence, the 'cleanness' of its collection and organisation, and the manner in which it supported the investigator's interpretation (see Section 2.6).

The design was also influenced by the complexity of the topic - the emergence of auditorial central banking - and by the type of research undertaken, namely an explanatory exercise using a multiple case study (see Section 2.5).

2.5 Choice of Methodology – Multiple Case Study

If one allows that the purpose of the scientific method is to enable the investigator to transcend his opinion or bias in the search for universal truths, research is essentially a matter of clear thinking and of disciplining the mind so that it reveals what 'is' without modification or distortion. Any interpretation or bias should, therefore, be fully recognised and countered by the production of 'plausible and credible evidence' (Sapsford 1995).

The scientific method is, of course, most readily associated with the physical sciences. Fiebleman (1972), for example, describing experiments as 'refined forms of observation', says they are the means whereby 'a proposed generalisation is confronted with the evidence ... where the investigator anticipates that there will be a certain conclusion reached...' (114) Since experimentation grew up primarily in connection with the physical sciences, it usually takes the form of external measurement of physically isolatable (i.e. controllable) phenomena. However, this is not unique as a means of explicitly formulating problems and

producing valid, replicable research. Multiple case studies achieve the same end by a different path whereon the cases are experiment-equivalents.

Given that the phenomenon or 'event' being studied here (the response of central banking to economic globalisation) is not controllable in the external sense, the case study approach was chosen as 'the correct method, [whereby] the scientist may be sure that his findings are 'true', 'repeatable' and 'generalisable'...' (Williams and May 1996:15). Yin (1984) identifies five such approaches: *single* for critical, rare or revelatory cases; *holistic* for global, questioning studies; *embedded* for examining sub units of a study; *flexible* more suited to pilot studies; and *multiple case* when robust analysis is needed. The fifth was used here.

The research was undertaken with an awareness of the many pitfalls that await the economic historian, including model fetishism, contingency (confusing means and ends), oversimplification, ex post reasoning, special pleading of thesis, and unrepresentative evidence (Cipolla 1991). Avoidance of these problems was helped by the fact that choosing a multiple – as distinct from single - case study does not obviate or negate the need to follow the scientific method. On the contrary, multiple case study lends itself well to empirical enquiry (Hammel 1993).

Since central banking is not an isolatable phenomenon, there was a need to boundary the 'event' so as to distinguish it from its context. Denscombe (1998:39) counsels that such boundaries should be explicitly identified, although researchers should be sensitive to their potential to exclude factors which nevertheless have an impact, to ignore the things that happen outside the boundary, and to create difficulties in dealing with those occasions when outside factors temporarily intrude.

This counsel was heeded in the design and conduct of the research, which began with wide consideration of the general theoretical and historical background to modern central banking (the topic survey), then tightened in on specific examples (the case studies), paying particular attention to the Bank of England. It then expanded back out beyond the boundaries when considering the replicability of the UK case.

2.5.1 Case Selection

The main cases chosen were the Banco Central do Brasil, the Reserve Bank of New Zealand, the Federal Reserve Bank of the United States, and the Bank of England, with the European Central Bank and the Bank of International Settlements providing secondary instances.

They were not chosen in probability or random selection terms, but 'purposively' – that is, in order to yield the best information for research purposes. The selection is small, partly for reasons of manageability, but as much because, although there are over 175[12] central banks in the world, there are very few models. Indeed, as detailed in Section 2.5.1 and 2.5.2, the selection of cases was deliberately designed to capture all main types of central banking and thus (after Layder 1993) to be representative of

[12] Figure per NYU's Center for the Study of Central Banks – October 2001.

the field in general. Moreover, insofar as the cases belong to specific cultural or political contexts (e.g. the Latin culture of Brazil or the federal construct of the US), they can be said to be typical. At the same time, given the somewhat 'northern' or Anglo-Saxon value system that informs central banking, the inclusion of both Brazil and to a lesser extent New Zealand provided some 'least likely instances'. Finally, since auditorial central banking is conceived as having universal relevance and applicability, the research design also afforded several 'test sites' for this theory.

2.5.2 Cases

As noted earlier, the cases chosen cover the full range of central bank types, and are representative of different levels of economic management (national, supranational and global) as well as diverse cultural and political contexts ('northern' and 'southern', 'British', and federal).

Particular mention should be made of Brazil and New Zealand. The BCB was chosen for five reasons. Firstly, Brazil has a 'southern' culture. Secondly, it is a 'third world' country, although neither of these terms is precise. Thirdly, Brazil is a large country with potentially huge economic significance both regionally and globally. Fourthly, it is on the list of 'emerging markets' and in this respect is a prime candidate for all that the financial markets can bring – for better or worse. Lastly, Brazil's present policies seem to go in the direction of central bank independence, albeit only informally.

The cultural question is not a small matter. Brazil is not untypical of many countries having to cope with modern economic conditions. Therefore, the possibility that their experience of central bank independence might be of use in other 'southern', 'third world', and 'uncivilised'[13] economies is an important consideration. In short, Brazil provided an opportunity to see if central bank independence and the emancipation of the financial markets are a fetish, or worse, of northerners, or whether they are also 'coherent with the Brazilian people', to quote a well-known Brazilian economist, Celso Martone, Professor of Economics at Sao Paulo University.

The RNZ was chosen for four reasons: (1) its particular experience with 'pure' single objective monetary policy, (2) the fact that its population is a mix of Pacific Island, Maori and European people, (3) the absence of industrialisation, and its primarily natural and agricultural landscape, and (4) its relevance, in terms of constitutional similarities, to the Bank of England.

It should also be repeated that the ECB and BIS represent special or secondary cases. The ECB has no state (as yet) but is included because of the example it represents of a 'zonal' approach to modern global economics and because of the different (i.e. non Anglo-Saxon) philosophy that tends to underpin it.[14]

The BIS, of course, is not a central bank at all, but a forum for central banks. It is of interest, however, because it operates at a global level (despite a strong European influence), has no unique political

[13] This term is often used by Brazilians to describe their stage of economic development.

jurisdiction (and in that sense is apolitical), and uses a currency, the gold franc, which is non-national, albeit valued at 1.94 USD.

Note: The inclusion of Japan was considered in order to have an Asian case. This was decided against, however, on logistical and linguistic grounds. All other cases are located in countries that the researcher was able to visit regularly and affordably in connection with parallel business interests, which paid for flights and accommodation. They are also in western European language areas and therefore within the language scope of the researcher – an important consideration in terms of carrying out and transcribing interviews, understanding the cases' contexts, and direct observation of events and conditions in the countries concerned. (For a specific discussion of Japan, see the relevant passage in Section 6.4: The Replicability of the Bank of England.)

2.6 The Integrity of the Research

2.6.1 Replicability

When conducting a multiple case study, the need to ensure the research can be replicated by others is met either by what Yin calls 'literal replication' (the prediction at the outset of similar results) or by 'theoretical replication' (contrary results but for predictable reasons.) Since theoretical replication operates only when rival hypotheses are being tested, this research uses literal replication – see Section 5.5.2.

2.6.2 Reliability

To safeguard reliability (the ability of the data to stand independently of the investigator), the research was 'managed' by way of a *protocol*, intended (1) to maintain a clear logical connection between the research questions and conclusions by providing a clear structure to the research process, (2) to provide for ongoing surveillance of progress by way of a continually updating the Abstract and Overview, in which the general objectives and processes of the research are outlined, and (3) to establish clear 'field' procedures concerning the collection of data (evidence) and maintenance of the database (see Section 2.7.3).

In the latter connection, the main procedures concerned the interviews. Following correspondence to request and arrange the interviews, each interviewee received the questions at least three days in advance, together with an outline of the thesis and prefatory descriptions of the ACB concept, although at that stage the ACB model had not been devised. All interviewees were presented with a similar set of questions (see Section 5.3.2), albeit in some cases modified to reflect specifics of the case concerned. Other questions were supplementary; others not always relevant.

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[14] Marshall (1999) quotes the view of Jean Claude Trichet, the French central banker in line to be head of the ECB, and who often insists on speaking French when at the BIS, that 'on the Continent, we have our own vision...'

With the exception of two interviews at the BIS, the interviews were taped and transcribed, and the transcriptions sent to the interviewees for comments or corrections. In all cases, the original transcription and tape-recording were retained as a check against undue modification of data by interviewees or their press office colleagues or, indeed, the investigator. In the event, most corrections received remedied factual errors or misunderstandings on the part of the interviewer.

2.6.3 Construct Validity

In order to ensure that the evidence would bear the weight of interpretation - *internal validity* - the research was conducted with a view to recognising the researcher's interpretative role, ensuring reasonable argumentation, considering all main alternatives, and identifying convergent evidence. *External validity* was addressed by generalising the findings by analytical (albeit non-statistical) means from particular sets of results to a broader theory. Concretely, the research measured the degree to which the cases matched (M), approximated (A), tended towards (T), or diverged from (D) the ACB model (see Section 5.5.3).

2.7 Data

2.7.1 Type and Selection

Consonant with the multiple case study approach, the type of data sought and the methods chosen to acquire them were also multiple, having been influenced by the choice of strategy and 'preferences about the kind of data that we wish to obtain and practical considerations related to time, resources and access to ... sources' (Denscombe: 83). Three main types of data were sought – constitutional documents, accounts, and central bankers' interpretations of the philosophy and practice of modern finance (interviews). Information was also gathered on the cases' contexts in terms of financial liberalisation and regulatory change, included in the form of outline chronologies.

2.7.2 Sources

The primary sources of the external data were published documents – principally, constitutions, legal acts, reports, and annual accounts. Secondary sources were journals, books, and discussions with academics and business colleagues around the world by way of both private conversations and publicly held workshops in the countries concerned. The aim was to develop a well-rounded view of the contexts of the cases being studied, assessed from various ideological perspectives.

The primary sources of the central bankers' interpretations were interviews, which had a twin characteristic - part *semi-structured*, based on a clear list of issues to be addressed and questions to be

answered, and part *open-ended*, to allow the interviewee to become also an 'informant'. The questions[15] were couched to engender a rich yield of data at several levels: interviewee specific, case specific, issues across all cases, practical considerations, normative questions about policy and conclusions.

Secondary sources were journals, books, and discussions with academics and business colleagues around the world by way of both private conversations and publicly held workshops in the countries concerned. In addition, material was incorporated from a graduation project at the University of Sussex, a 30 minute film documentary on central bank independence and the Bank of England, entitled 'Dogs may Bark...'[16] The aim was to develop a well-rounded view of the contexts of the cases being studied, assessed from various ideological perspectives.

The sources for the chronologies were all secondary, in that this aspect of the study synthesised work done by other authors. That said, the editorial perspective used and the manner of formulation are unique to this research.

2.7.3 Database

A database was maintained consisting of the following elements:

- Investigator's Notes – classified so as to be accessible and understandable to a third party.

- Constitutional, accounts, and other documents - to facilitate classification, storage and retrieval

- Material from which Charts and Tables have been derived.

- Papers (see Appendix 2: List of Doctoral Papers) and other material used as background to the topic survey.

- Interviews: Correspondence with interviewees, full lists of questions submitted, recordings, and transcriptions, as well as corrected, 'combed', and highlighted versions, and analysed responses.

2.7.4 Collection

In order that the data used would be 'clean', consistent to the guiding theory, and clearly related to the hypothesis being tested, it was collected with the following in mind:

- originality
- existence independent of the research
- the need to tell an interesting story
- adequacy and appropriateness to 'event' being studied
- accuracy and up-to-dateness
- reliability

[15] See Section 5.3.2.

- broadness of range
- avoidance of data-born bias
- corroborability (in the case of interviews)
- viability of interpretation

In the case of documents, the need for clean data meant ensuring that all documents used were bona fide publications and that the information imparted was fully in the public domain and thus subject to extensive scrutiny. By focusing on how the central banks are currently organised, no reliance was placed on archives, which in this field can be difficult to access for such reasons as the 30-year rule, protection of national interests, and sensitivity of financial deliberations. (In this connection, it should be noted that the Bank of England 'in house' interview was monitored by the Bank's public relations office.)

As regards interviews (Section 5.3), these were conducted with due regard for concerns that the researcher should set the agenda and satisfy himself as to the truthfulness and accuracy of the interviewees. The purpose was to seek the views of senior central bank officers on what 'should' happen in the field of central banking, and their assessments of their organisations' situations and prospects. Both present and past officers were interviewed, on the assumption that those in office would express the view of current policy and thinking within their organisation, while those who were out of office could be expected to provide information that combined their experience and their subsequent freedom, while it was expected that the high standing of the interviewees would yield original and 'high quality' insights.

With the exception of two (of four) interviews at the BIS, the interviews were audio-taped and transcribed, and transcriptions sent to the interviewees for comments or corrections. In all cases, the original transcription and tape-recording were retained as a check against undue modification of data by interviewees or their press office colleagues or, indeed, the investigator.

2.7.5 Convergence (Triangulation)

In support of construct validity (Section 2.6.3), the aim throughout was to enable the 'findings to be corroborated or questioned by comparing the data produced by different methods.' (Denscombe: 85) To this end, the data were converged or 'triangulated' from four 'points': structures, accounts, interviews and chronologies (Section 5.5.3):

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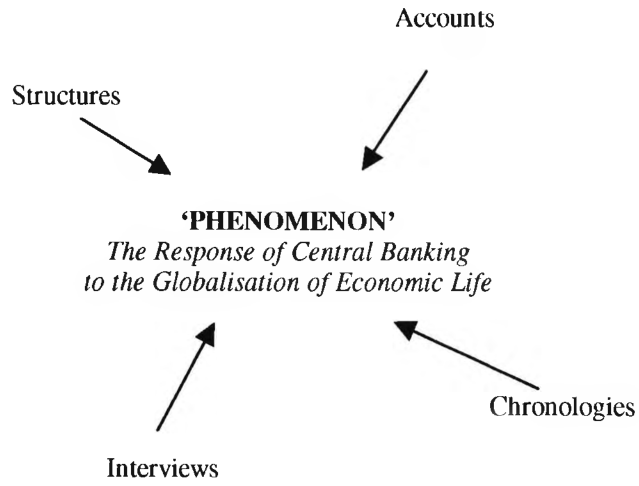
[16] See Bibliography.


Accounts
Structures
'PHENOMENON'
The Response of Central Banking
to the Globalisation of Economic Life
Chronologies
Interviews

3: TOPIC SURVEY

This chapter surveys and comments on the literature in the main fields pertinent to the topic of research. The centrality of the topic means, however, that the review touches on many areas, which, although they extend its scope and length, it is difficult to ignore or skim over. To cover this ground and at risk of being disproportionate in size, therefore, this chapter has three sections – contextual themes, concepts of monetary authority, and the emergence of auditorial central banking in terms of central bank independence indicators.

3.1 Contextual Themes

3.1.1 Monetary Economics

Before embarking on the topic survey proper, some prefatory remarks would seem advisable in order to locate what is a non-statistical, economic historical study in the context of monetary economics.

Monetary economics is not readily defined, witness the fact that it is often identified by reference to its subject matter. Weintraub (1970), for example, substituting the term 'money and banking', refers to 'monetary institutions, money supply, money demand, the effects of money developments on economic activity, the balance of payments, and monetary policy.' (v) For Johnson (1979) monetary economics comprises two components - 'theories concerning the influence of the quantity of money on the economic system,' and 'policy employing the central bank's control of the supply of money as an instrument for achieving the objectives of general economic policy.' (15) Loosely, therefore, monetary economics is concerned with the 'right' quantity of money - a controversial task, since there is by no means universal agreement on the nature and purpose, let alone right quantity, of money in modern economic life, witness the growing tension between advancing liberalism and those who contest both its conceptual and social validity.

Here the field of monetary economics is surveyed in terms of key issues that occupy its attention, especially as seen at the midpoint of the period under review (that is, post Bretton Woods), when much of the post 1973 experience was being analysed and the mould set for subsequent years. Essays edited by Llewellyn and Milner (1990) identified three interconnected themes:

- the shift from official to private finance and from governmental to market solutions

- the contrast between expected and actual behaviour of floating exchange rates

- the 'distorting' role of short term capital flows

From Official to Private

For Llewellyn and Milner a key phenomenon is the rise of financial liberalisation and its consequences for central banking. 'With greater exchange rate flexibility and greater reliance on private capital flows, the private sector has become more important in 'recycling' funds from surplus to deficit countries. With this has come some loss of control of the system. The liberalisation of capital markets throughout the world and the move away from a rules-based international monetary system has reduced controllability...' (7-9)

In effect, the privatisation of world finance escapes the concepts, techniques, and dynamics of national economics and leads over into an integrated world economy. Yet how is this new situation to be understood? When governor of the Bank of England, Gordon (now Lord) Richardson frequently spoke of the importance of central bank coordination[17] and of the need for an international reserve base. But, as Capie and Wood (1989) mused: 'What could this base be? A single national currency is unsatisfactory – for the reasons that brought down Bretton Woods. Gold is too volatile in price, although it is there, and will be used. Ideally, we should have an SDR; but a multi-currency system may prove necessary for a time and would prove viable if inflation rates stabilised.' (6)

Exchange Rates

Central to both monetary economics and the ACB thesis is, of course, the question of exchange rates (see also Section 3.1.5). Prompted especially by the fact that between 1973 and 1990 floating exchange rates did not behave as expected to by Friedman[18] and Johnson, for example, the main debate concerns the difference between fixed and floating and the consequent doubting in PPP theory.[19]

As to expectations, Dornbusch (1990) writes, 'When Johnson [in 1969] made the case for flexible exchange rates he rested it on the presumed policy autonomy that would be gained once balance of payments equilibrium was no longer absorbing the commitment of scarce policy instruments... In the past fifteen years, key exchange rates have moved in larger and more persistent ways than advocates of flexible rates in the late 1950s and 1960s would have imagined.' (13/14) Dornbusch goes on to describe the experience with flexible exchange rates as having 'three outstanding characteristics: volatility of real exchange rates, persistent misalignments, and pervasive forecasting mistakes.' (23)

This criticism is not as negative as it may appear. First of all, the behaviour of exchange rates became determined more by capital than trade flows. Equally, though, it needs to be borne in mind, that this development took place in the context of patchily floating, rather than the *universally* floating exchange rates that the ACB thesis presupposes. The latter have not yet obtained, of course, so the experience since Bretton Woods does not refute the ACB theorem. Indeed, to the extent that floating exchange rates can be

[17] See Appendix 3: International Cooperation.
[18] See references in Section 3.1.5 to Friedman's 'own lights' dictum.
[19] See Appendix 4: Concerning PPP Theory.

described as deficient or disappointing, the criticism is properly aimed at the patchiness of their implementation, rather than at the floating concept itself.

Excess Capital Mobility

Dornbusch is explicit on the effect of liberalised capital flows: 'Most of the shortcomings of our exchange rate experience stem from excessive, overly volatile capital mobility. The stickiness of wages relative to exchange rates creates a macroeconomic externality which possibly justifies closing or restricting some markets. Rather than fix exchange rates, the alternative is to limit the consequences of capital mobility.' (42)

As Dornbusch acknowledges, however, tinkering with, let alone obstructing, free global capital flows may be historically quixotic. The point is doubly moot: assuming one could, *should* capital flows be externally regulated (again)? And since such a development would lay an axe to the very root of economic liberalism, could this be done without setting in train untoward wider socio-economic effects? In 'big picture' terms, *if* there is a problem with liberalised finance might not the way forward be to refine or metamorphose current approaches, rather than, as many aver, to breathe new life into socialist and statist remedies? A key question facing monetary economics, therefore, is whether deregulation requires some further policy evolution in order to pre-empt re-regulation.

Eight Problems / Four Themes

For Llewellyn, modern economic life faces eight related problems:

1. Exchange rate behaviour
2. Settlement obligations
3. Confidence problems
4. Balance of payments symmetry
5. Methods of balance of payments finance
6. Central bank international liquidity
7. The n-1 problem
8. International coordination

He sets these problems in the context of 'four dominant and related themes':

- Market-related adaptation to major shifts in the economic and financial environment given the absence of officially agreed and clearly defined 'rules of the game'.

- Structural change in the relative roles of the private and official sectors (a 'privatisation' of international monetary arrangements).

- Increased international financial integration and the increasingly dominant influence of international capital movements.

- Financial innovation, both in the structure of the system and the particular role and operation of the private sector.

The third of these, capital mobility, has particular relevance to the discussion here. 'Historically, long-term capital market flows have been a major part of economic development strategies and can have clear beneficial effects. A dominant feature of the 1970s and 1980s, on the other hand, has been the growth of short-term capital movements and portfolio shifts between financial assets in different centres and currencies. Overall, the volume of international financial flows has expanded at a very much faster rate than the volume of trade flows.' (228) It hardly needs adding that this state of affairs has increased since 1990, reinforcing, presumably, Llewellyn's conclusion:

> 'Given past history, it is tempting to ponder whether current arrangements are in some sense transitional. This author's judgement is that they are not and that the basics of the present system will remain. Nevertheless, [there are] three areas where future problems may arise: (1) the size of current imbalances and their adjustment, (2) the role of capital movements in a world economy with different degrees of international integration between different groups of countries, and (3) a potential 'confidence problem' associated with the US external debt position in the context of a continuing large deficit. If there is to be a modification to the system it will likely centre on these three issues.' (241)

Auditorial Central Banking and Monetary Economics

With such concerns for the way in which the nature, purpose and workings of money are understood and given practical effect, monetary economics inevitably touches on the question of modern central banking and the rise of globalised finance. Central to this is the way increasingly privatised and increasingly global operations in finance are prompting (or being accompanied by) deep changes in the perception and modality of central banking – away from the central bank qua instrument of government economic policy (usually politically determined) towards an overview function, a 'listening' (hence, auditorial) role in an otherwise marketised economic life.

The link between monetary economics and auditorial central banking can thus be expressed by four main questions:

1. Is the national economic paradigm a match for post 1973 developments?

2. Can/should central banks control the modern money supply?

3. Were 'excess capital mobility' resolved by some form of inherent regulation that did not offend business or market precepts, would exchange rates behave as classical PPP envisages after all?

4. Does the homogenisation of monetary policy and central banking generally (albeit along auditorial central banking lines) entail a solution to the *n*-1 problem of the US? In other words, does auditorial central banking transcend the hegemon problem?[20]

[20] See in this connection Section 3.1.5.

The problem with all these questions is that they locate the ACB thesis at the centre of debates that are not only conceptually controversial, but also socially so. It is difficult to think of a more complex or sensitive topic than the future of central banking, the more so, if, as argued here, one advances the concept of 'double independence', meaning independence from both government and financial institutions. Experience tells one that money and matters monetary can give rise to emotional responses. Before continuing, therefore, attention is drawn to this problem in order to pre-empt its obtrusion in this instance.

3.1.2 An Epistemological Aside

Section 1.4 referred to the problems presented by causal analysis, a point that merits further elaboration. A particularly important feature of financial markets, is the interconnectedness of their prices and the absence of any fixed reference point, other than what the individual 'player' considers a good deal. For example, when new Treasury Bills are issued, the very fact of their issue, let alone the price they are issued at, says something about existing T-bills. The value of any financial asset, in other words, seems never to consist in itself: on the one hand, it is in the eye of the investing beholder; on the other, it is in reciprocation with other prices.

Such reciprocity between prices has important epistemological implications, calling on us to think 'reflexively' and aggravating the fact, as Soros (1987) sees it, that because 'equilibrium ... has rarely been observed in real life [so] market prices have a notorious habit of fluctuating.' (42) The point is neither new nor unique to him, however. In a public debate[21] with Soros, Mervyn King of the Bank of England remarked that two-way causality is well known when considering, for example, the relationship between expectations and behaviour.

Modern finance clearly represents a challenge to what Geisst (1989:3) describes as 'the old, and somewhat tired, cause and effect mentality'. Because of the velocity of changes in the market 'causative analysis of the markets has become a much more difficult, if not impossible, task than it was previously.' (4) Similarly, Pepper and Oliver (2001) note that 'in practice the UK financial system[22] is usually in the process of changing from one state of *disequilibrium* to another state of *disequilibrium*, in which case availability of supply can have a continuous effect (authors' italics).' (85) This suggests that the real nature of modern economic life, and of modern finance in particular, is like that of a swift – forever on the wing, never coming to rest. Importantly, this is not the image of a mechanism, that is, of leverage and the corresponding concept of a fulcrum, but of a different order of things, in which monetary policy replaces its focus on achieving equilibrium with the management of continuous albeit changing disequilibrium.

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[21] The Times-Dillons Forum, London 7 December 1998.
[22] And others. - CHB

Khoury (1990) makes this variety of causation very clear:

> 'The presence of risk is an inducement to innovation... [Other] forces motivating changes ... are the increased competition in the financial markets, the desire and need to circumvent regulatory constraints, the shifting patterns of net flows of international savings and investments, the emergence of new countries and currencies to compete effectively with the US, the need to create a massive pool of funds to finance huge projects with increasing diversity and complexity, and the shifting preferences of borrowers and lenders.' (19)

Finally, Fernandez de Lis (1996), noting that central bank independence is 'a variable that is very difficult to quantify', (5) observes that 'the concept is somewhat elusive [since] theoretical and legal autonomy may differ substantially from practical autonomy,' (7) while there are many qualitative aspects which are difficult to capture in a quantitative analysis, such as 'the personalities of the central bank's top officials, their prestige and technical expertise, the informal relationships between the central bank and the government, its links with financial institutions and markets, etc.' (21)

In sum, the causation of modern finance is not one-way, but recursive and autopoietic - even organic – in the sense that so many elements are at work, with each having a consequence for the others, that one is very hard put to say what caused what.[23] One is perhaps better advised to describe the financial markets as having happened, rather than as having been caused, a characteristic reflected in this study in both the manner of its writing and the choice of methodology.

3.1.3 Double Independence

'Auditorial central banking' refers to a complex range of issues, which as a whole do not lend themselves to simplified definition. One such issue is the concept of 'double independence', referring to the need for independence from both government and financial institutions if the central bank's purposes and operations are to have a public good quality in keeping with the fact that money is a common concern.

Double independence can be traced at least as far back as Henry Thornton, probably earlier. An MP at the age of twenty-two, Thornton rejected any party connection, preferring to champion 'civilising influences'. When he spoke in the House it was mainly on topics of finance, and then, to cite Anna Schwartz, in the spirit of *multum in parvo* - much in little.[24]

Nothing is perhaps more 'Thorntonian' than the following paragraph:

> 'To limit the amount of paper issued, and to resort for this purpose, whenever the temptation to borrow is strong, to some effectual principle of restriction; in no case, however, materially to diminish the sum in circulation, but to let it vibrate only within certain limits; to afford a slow and cautious extension of it, as the general trade of the kingdom enlarges itself; to allow of some special, though temporary, enquiries in the event of any extraordinary alarm or difficulty, as the best means of preventing a great demand at home for guineas; and to lean to the side of diminution, in the case of gold going abroad, and of the general exchanges continuing long unfavourable; this seems to be the

[23] Seeing, or at least seeking, patterns behind their screen trades, some players known to the researcher even regard the markets as the expression of some higher order of things.

[24] Quoted in *Monetary Economics in the 1980s*, F H Capie and G E Wood (Eds.), City University, London, p.2.

true policy of the directors of an institution circumstanced like that of the Bank of England. To suffer either the solicitations of merchants, or the wishes of government, to determine the measure of the bank issues, is questionably to adopt a very false principle of conduct.' – Paper Credit, p.259.

These observations draw attention to what, ideally at least, the central bank does. It seeks to match the availability of money to the waxing and waning needs of the economy in a more sophisticated way than a mere gold constraint allows, but to the same effect – that is, to provide a matching amount of money. Because Thornton's eye is on price stability and the management of inflation, his remarks remain apt today when financial stability, which under modern conditions central banks have difficulty ensuring, threatens to undermine price stability.

Although not found in the literature, inasmuch as double independence refers to the central bank as an 'above the fray' institution, the concept is neither new nor unknown. Consider Goodhart (1988) when he says that already by the dawn of the 20th century central banks had '[metamorphosed] from their involvement in commercial banking, as a competitive, profit-maximising bank among many, to a non-competitive non-profit maximising role that marked the true emergence and development of proper central banking...' (104)

Double independence is also implicit in Churchill's idea of 'a non-political body free altogether from party exigencies, and composed of persons possessing special qualifications in economic matters' (see Appendix 5), and it is a frequently-found image in the context of the Federal Reserve. William McChesney Martin, Chairman of the Federal Reserve Board from 1951 to 1970, put the argument for independence as follows: '...an independent Federal Reserve System is the primary bulwark of the free enterprise system and when it succumbs to the pressures of political expediency or the dictates of private interest, the groundwork of sound money is undermined.'[25] Blinder (1995), too, is clear about the need for distance from the financial markets in order to avoid the temptation of '[delivering] the interest rate path that the markets have embedded in asset prices,' (55) and to counter herdism in speculative markets, faddish bubbles, and the short time horizon of traders, even those dealing in long term instruments. In his informative discussion, he also claims 'there is no more reason for central banks to take their marching orders from bond traders than to take their orders from politicians.' (76)

Since 1973, the idea of double independence has also been implicit in the rise of central bank independence, which could equally well be termed 'single independence'. In this sense, the debate over whether central banks should be independent of governments is more sophisticated than many recognise, and serves to show that central banks can be understood as societal. In auditorial central banking terms, the issue is whether they can be so on their own account or only when under the direction of government.

Finally, a very recent practical example of the double independence concept occurred when the Banque de France vested monetary policy in 'persons of recognised standing and professional experience in monetary, financial and economic matters'.

[25] Quoted by A Jerome Clifford in The Independence of the FRS, University of Pennsylvania Press, 1965, p.18.

To be sure, central bankers exhibit an obvious bias in this regard and more should not be made of these remarks than they can reasonably support. Nevertheless, they imply a conception of central banking, which, however controversial, seems resonant with present conditions.

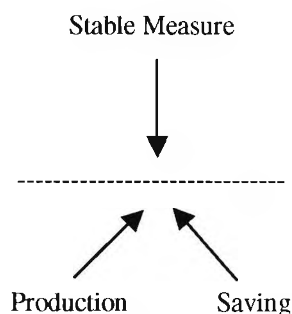
It belongs to the intuition behind this thesis that if the step from single to double independence can be achieved in the constitutional sense, the resultant changes in central banking will also address 'the problem of the financial markets'. In other words, current constitutional arrangements lag behind economic evolution. A hoped-for contribution of this dissertation, therefore, is to show that this constitutional solution has been gradually emerging since 1973 and is in many respects already present, but not named as such.

3.1.4 Keynes's '*Tract on Monetary Reform*'

Auditorial central banking has an important antecedent in Keynes's *Tract on Monetary Reform.* It would be too great a diversion here to consider this work in the detail it deserves,[26] so suffice it to say, that it contains an important theorem, which this section aims to elucidate, albeit in a necessarily skeletal manner. Published in 1923, the *Tract* is concerned with whether to return to the gold standard after World War I, following its suspension in August 1914. Though Keynes's focus is understandably on the pound/dollar as a combined primary currency, the image is clearly one of a globalised economy, with the question of how to operate 'scientifically' policies and arrangements that previously depended on gold.

Keynes's Thesis

Stripped of its original contextual remarks, Keynes's thesis is disarmingly simple: '[production and saving] cannot work properly if the money, which they assume as a stable measuring-rod, is undependable.' (v) This readily results in the following sketch, whose affinity with those in Chapter 1 is evident:



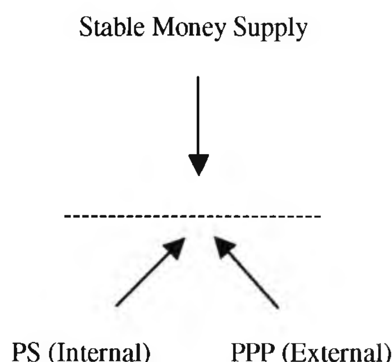
Sketch 3.1: Keynes's Thesis - I

[26] This and many other sections are distilled from papers written in the course of the research – see Appendix 2: List of Doctoral Papers.

Keynes then states that 'there is no historical warrant for expecting money to be represented even by a constant quantity of a particular metal, far less by a constant purchasing power.' (9)[27] This means, of course, that the successful ongoing management of the economy as a whole needs to be a conscious act - deliberate and scientific. Hence,

> 'it is one of [the book's] objects ... to urge that the best way to cure [the] mortal disease of [speculation born of] individualism is to provide that there shall never exist any confident expectation either that prices generally are going to fall or ... rise... To procure this result by removing all possible influences towards an initial movement ... would seem to be a hopeless enterprise. The remedy would lie, rather, in so controlling the standard of value that, whenever something occurred, which, left to itself, would create an expectation of a change in the general level of prices, the controlling authority should take steps to counteract this expectation by setting in motion some factor of a contrary tendency.' (38) To this end, 'we must free ourselves from the deep distrust which exists against allowing the regulation of the standard of value to be the subject of deliberate decision.' (40)[28]

Keynes's thesis rests on a specific conception of money: '[Currency] has no utility in itself and is completely worthless except for the purchasing power which it has as money.' (75) His concern is how to make this nature of money conscious by fashioning monetary policy in its likeness by pursuing price stability and subordinating all other factors to this one objective. This goes for real factors, such as employment and productivity, and financial ones, such as the influence of the exchange rate. In Keynes's words, this amounts to: 'a method for regulating the supply of currency and credit with a view to maintaining, so far as possible, the stability of the internal price level, and ... for regulating the supply of foreign exchange so as to avoid purely temporary fluctuations ... not due to a lasting disturbance in the relation between the internal and external price level.' (177) Thus:



Sketch 3.2: Keynes's Thesis - II

For Keynes's, stable prices and stable exchange rates need to be implemented by way of four chief conditions:

1. Internal price level by way of cash determined by credit ex banks.

2. Cash provided ad libitum.

[27] A view that seems to be echoed by Hayek (1990), who, however, sees the achievement of constancy in strict market terms, by which the manager of each issuing bank 'would learn that its business depended on the unshaken confidence that it would continue to regulate its issue ... so that [its] purchasing power remained approximately constant.' (49)

3. The immobilisation of gold.

4. The foreign exchange markets made unregulated and left to look after themselves.

It is through this lens that this section considers modern monetary policy. The conditions may appear anachronistic, but only on first sight. The *Times* writer on economic affairs, Anatole Kaletsky (1999), recently made direct and updating reference to precisely this conception, arguing that we have good as immobilised gold (Condition 3) by the device of price stability.

Condition 4, unregulated foreign exchange markets, is not yet achieved, of course, but qua theorem, it is clear that floating one's currency can only have the required effect (of supporting price stability) if all other currencies float. That Condition 4 does not obtain does not undo Keynes's logic, therefore; it merely delays the application of his theorem.

Conditions 1 and 2 have, of course, to be modified in the light of today's circumstances - especially the emergence of electronic transfer and payments systems (see Section 3.1.7) and the consequences for credit creation of the rise in unregulated financial markets. But these phenomena do not undo Keynes's thesis either; they merely serve to bring history alongside it. The fact that e-money renders ever more visible the bookkeeping nature of money is crucial if, as the ACB concept envisages, monetary policy is to become embedded in the actions of countless individuals, rather than operating, as traditionally, via the agency of the central bank.

Function and Form

One side of Keynes's thesis concerns the nature of money and monetary policy. The other is about the forms and structures that express this nature. Keynes is unequivocal. Under single objective monetary policy, '...the actual trend of prices ... should determine the action of the controlling authority.' (188) 'Actual price movements must of course provide the most important datum... The main point is that the objective of the authorities, pursued with such means as are at their command, should be the stability of prices.' (189)

This implies that it is the role of the authorities only to *recognise* right prices, not to predetermine them or decree what they should be. This is a major sociological statement because, while it vests monetary policy in 'the controlling authority', it clearly envisages this authority operating according to economic considerations, notably the quantity theory of money and the theory of purchasing power parity.

Although here is not the place to restate either theory or to rehearse the debates concerning them (but see Appendices 6 and 4), it is worth noting that, notwithstanding the qualifications due in respect of both concepts, they continue to provide powerful orientation of the mind. It is not anachronistic, therefore, to

[28] Keynes's italics.

envisage combining the 'primary object with a maximum stability of the exchanges [so as to] get the best of both worlds...' (189)

Given the 'above the fray' aspect of the ACB concept, Keynes's idea of a controlling authority is clearly important, even if, as discussed later, one can take issue with it from a free banking perspective. His assumptions about price stability lead directly to the requirement that no agency, especially governments, shall operate inflationarily.

To say this, however, is to indicate a conflict of interest between the controlling authority and the government, leading in Keynes's argument to what today is called central bank independence. More than that, it suggests *all* countries adopt this approach, otherwise there cannot be price stability or floating exchange rates on a universal basis. And this implies in turn the emergence, as primary, of the international dimension to monetary affairs. 'We have reached a stage in the evolution of money when a 'managed' currency is inevitable, but we have not yet reached the point when the management can be entrusted to a single authority. The best we can do, therefore, is to have [more than one] managed currencies..., with as close a collaboration as possible between the aims and methods of the managements.' (204) 'Each [country] should choose freely, until, with the progress of knowledge and understanding, so perfect a harmony had been established between the two that the choice was a matter of indifference.' (205)[29] At this stage price stability prevails, and instability caused by economically 'false' exchange rates between countries becomes a thing of the past (just as it is between the provinces within a state).

Universal price stability raises a question that goes to the heart of modern economic life, however. If currencies are not to be measured against gold or against a primary currency such as sterling or the US dollar, what is their basis? So long as gold fulfilled this task, it had two important consequences - it kept our thinking straight and the gold standard operated with clear one-way causality. Without it, in Keynes's words, we move into a world in which 'the point about which the exchanges fluctuate, and at which they must ultimately come to rest ... is not itself a fixed point...' (89) To get ones bearings in such a world one needs confidence in the controlling authority, enabling deliberation and science to displace the barbarous vagaries of gold.

Keynes's theorem also entails a major implication concerning Conditions 1 and 2 – in short, the relationship between cash and credit. At risk of being controversial, provided liquidity is provided to the market, Condition 2 is still valid: cash is, or should be, provided *ad libitum*, albeit within the context and constraints of price stability and scientific economic management.

The difficulty today concerns Condition 1 and the fact that credit now 'comes from all over', as Mayer (1999) puts it, issuing increasingly from outside the banking system. Since over-issue of credit can devalue cash - that is, price stability can be eroded by financial instability - for many, the question

[29] Keynes is referring to the £ and $ and the currencies of other countries. The text has been generalised, however, because the point seems to be generic.

becomes one of controlling credit issued by the financial markets. This misses the point, however. The ACB response is to decouple cash and credit - a complicated, not to mention controversial, idea taken up in Section 3.1.6.

The 'Controlling Authority'

To complete the consideration of the ACB concept in terms of Keynes's *Tract*, it remains to comment on his idea of a controlling authority and his statement that 'nothing can preserve the integrity of contract between individuals, except a discretionary authority in the state to revise what has become intolerable.' (67) Clearly, Keynes sees a role for central banking and currency authorities. As to whether the 'controlling authority' should operate by rule or discretion, he is by no means unsympathetic to the rule concept as, for example, expressed in Irving Fischer's 'Compensated Dollar'. But he says of it: 'I doubt the wisdom and the practicability of a system so cut and dried,' and, quoting Hawtrey, notes that 'it is not the past rise in prices but the future rise that has to be counteracted.' (187) Thus he combines rule and discretion.

Concerning the position of the controlling authority in society, it is societal, leaving the conduct of business and investment to the private sector. For Keynes, of course, societal means the state. It has to be asked, however, why this should be so. In a democracy, to the extent that the 'controlling authority' fulfils the conditions outlined by Keynes, why does it need to be governmental? It could equally well be a self-standing entity created by the people for the people (i.e. by an Act of Parliament or its equivalent), charged with a specific task and conducted publicly by experts. Indeed, it must surely be a moot point whether universal recognition of price stability can either be achieved or maintained so long as the controlling authority's raison d'etre and terms of reference are political rather than economic.

Conclusion

The *Tract* seems to confirm the essential line of thought of the ACB thesis. Having been flagged along the way, key points in this regard can now be brought together. The distinction between societal and private or market is common to both the *Tract* and auditorial central banking – as also is the notion that the role of the controlling authority is to keep the framework clear, functioning and neutral. In regard to price stability and universally floating exchange rates, Keynes's views on the operation of monetary policy also align with auditorial central banking. The question thus becomes: By what paths, and how long until *all* countries pursue price stability and allow their currencies to float?

Since Keynes wrote the *Tract*, of course, events took a very different course to the one he advocated. There has been anything but a universal pursuit of price stability and floating exchange rates, due in part to his own subsequent influence. Today, however, the conditions seem to have returned to which his ideas were addressed and research into auditorial central banking is centred on the same question as Keynes's had in mind: What happens when gold is let go? What civilised harbinger can signal the end of 'the barbarous relic'?

The answer to this question is unclear, of course, and in all probability it will not become clear other than by the doing of it – that is to say, not until price stability and floating exchange rates are made universal realities on the practical plane. To say this is not to take refuge in a tautology. The object of the exercise is to research a theorem, and to enquire as to its explanatory power.

3.1.5 Exchange Rate Policy

In the ACB concept it is a responsibility of the central bank, not to set but to observe the 'right' exchange rate for its currency. This idea refers to the point in Keynes's *Tract*, where he speaks of the harmonised policies derived from free choice – an argument reflected much later (originally in 1953) by Milton Friedman (1966):

> '...flexible exchange rates are a means of combining interdependence among countries through trade with a maximum of internal monetary independence; they are a means of permitting each country to seek for monetary stability according to its own lights, without either imposing its mistakes on its neighbours or having their mistakes imposed on it. If all countries succeeded, the result would be a system of reasonably stable exchange rates; the substance of effective harmonisation would be attained without the risks of formal but ineffective harmonisation.' (200) Friedman (1968) later summarised this as a quest for 'institutional arrangements that will enable government to exercise responsibility for money, yet will at the same time limit the power given to government and prevent the power from being used in ways that will tend to weaken rather than strengthen a free society.' (174)

Universal price stability presupposes that the exchange rate of a currency will be allowed to find its 'true' level - to all intents and purposes, its external or, better put, world rate, or its rate in reciprocation with all other currencies. This is seldom in the interest of interventionist governments, of course, but if one envisages the case where a government does decide that the exchange rate should be the 'true' one - that is, it does not set an arbitrary target - it then has to choose between leaving it to the markets to decide (free float) and best guessing or following their lead.

At this point, however, the question arises: On what is the government's judgement to be based, especially if it is to be apolitical? And is it to be made by the finance minister or the governor of the central bank? And then by rule or discretion?

The assumption behind this thesis is that the chances are that the role currently carried out by the finance ministry could be achieved – and possibly more effectively – by the central bank, were the latter elevated to a status akin to that of the judiciary. But if the government gave up the idea of ordaining the exchange rate, would it need to play a role in this matter at all? In other words, if not governmentally, how and by whom is a currency's exchange rate to be determined, and is there an institutional structure that can emulate Keynes's (and Friedman's) suggestion for uniformity in conception yet variety in application of price stability? Under auditorial central banking, such judgement entails a combination of discretion *and* of procedures born from experience, while the decision needs to be made by a person or group of people

in an institutional context designed for the purpose.[30] The purpose of this section is to locate this aspect of the topic in the literature on exchange rates.

An Aside

Before continuing, an important aside. The meaning of auditorial central banking so far given or implied in this dissertation may seem naïve in the light of post Bretton Woods inflationary history. To celebrate or, worse, rely on the image of stable money resulting from the combination of internal purchasing power parity via price stability and external purchasing power parity achieved by freely floating exchange rates, may surprise those aware of the trenchant criticism this idea has received. In the 1989 Mais Lecture, for example, the financial commentator, Samuel Brittan, was without a shadow of doubt in his mind when he spoke of the 'disappointing experience' (21) of floating exchange rates and noted that 'the combination of national economic policies hardly led to a harmonious development of exchange rates.' (22) It would not do to blink at this juncture, however. Brittan was referring to a world in which countries often have more than one monetary policy objective and use exchange rates for protectionism. Moreover, the government of the day is regarded as the arbiter of monetary policy, albeit through the agency of an independent central bank. Furthermore, governments have not uniformly sought price stability, having often taken the 'half-pregnant' line.

Clearly, the ACB concept does not operate in such a context. It locates monetary policy in the central bank as a societal agent responsible to *parliament* and presupposes unequivocal and universal pursuit by *all* countries of price stability and purchasing power parity. In other words, it is not the pursuit of price stability *combined with* free floating exchange rates that was culpable for high inflation (if indeed the floating exchange rates were directly to blame) in the 10 to 15 years after Bretton Woods, but partial, when-it-suits, and even lip-service behaviour in regard to floating, not to mention patchy pursuit of price stability and the oil price hikes of the early and mid 1970s. Indeed, in observing that 'many of these problems were tackled automatically under the gold standard,' (22) Brittan himself takes us back to the point and purpose of Keynes's *Tract*.

Moreover, the ACB concept entails three careful thoughts. While co-ordination of monetary policy beyond frontiers is one thing when attempted intergovernmentally and in a context of competing national economies, it is quite another when used as a tactic within a strategy to 'partnerise' the world economy, meaning that countries need to identify their comparative advantage, giving over the quest for hegemony and seeking instead to play their part in the global economy as a whole.

And it is different again when the agents are not short-termist, partisan governments of the day, but central banks answering to parliament 'with a long time horizon and an abiding concern for the value of money', to paraphrase Rasminksy (1966). Lastly, while making monetary policy a societal rather than governmental role, the ACB concept avows market determination over a priori political targets, but locates the judgement of a 'right' exchange rate 'above the fray'. That is to say, it neither abandons rules

[30] For a thorough and fascinating discussion of this topic, see Blinder (1995). Also, Issing (1996).

for discretion, nor discretion for rules – thus transcending what can all too easily become a false, or at least stale, debate. After all, even financial market operators rely on their judgement and do not wisely hide behind models of the future or extrapolations of the past. Useful though such tools are, they are not substitutes for thinking.

The Assignment Problem

Naturally, qua theorem, the ACB concept refers to an imagined world, rather than day-to-day events. If this is forgotten, paragraphs like the preceding one can seem like flights of fancy. The aim of any theorem is not to say how things are or should be, but to aid understanding by acting as a heuristic device. To appreciate the power of such a device, especially in regard to exchange rate policy, consider the 'assignment problem', which provides major orientation in this field. According to Oliver (2000), this holds that 'policymakers can choose only two out of three policy options at any one time: free capital flows, a fixed exchange rate, and monetary policy autonomy.' (4)

This view of things is predicated on the conventional description of how exchange rate policy operates. Just as under the gold standard the difference between imports and exports was met by an in/efflux of gold, so post gold standard the difference is met by an in/efflux of foreign currency reserves. If a country wants to maintain a particular exchange rate rather than leave it to the markets, it can use its central bank to intervene by using its foreign currency reserves to buy/sell its currency when the exchange rate is falling/rising.

The central bank's ability to do this, however, is constrained by the quantity of foreign currency reserves at its disposal and that it is able to manage without de/inflationary effects. It also presupposes that a central bank's resources are able to match those of global markets. Given a declining ability in this regard, exchange rate policy increasingly relies on price stability for its befriendment by the financial markets, thus keeping the exchange rate close to purchasing power parity. Robert Marris[31] (2000), for example, recently described a 'good' exchange rate as 'one that contributes to the long-term economic well-being of both [parties], ...[adding that] in technical jargon, my ideal long-term actual exchange rate should, stay close to...PPP' and noting that '...to calculate a fundamental equilibrium exchange rate one must forecast long-term 'normal' international capital flows.'

Intervention is seldom absent, however; New Zealand being probably the only country in the world to have floated its currency unflinchingly (since 1985). Both concept and practice are muddied by insistence on the assignment analysis described above, for the obvious way beyond it is to float the exchange rate. To do this, however, a country would have to ensure that its economic development had world economic, not just national economic significance – to comport, in other words, with the partnerised concept mentioned earlier.

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[31] Former Professor of Economics at Birkbeck College, London.

And yet, is this not a nettle that has to be grasped? There are limits today on how far one can set national above global economic realties. As Blanchard and Fischer (1996) note,

> 'it is not possible to ignore international trade in goods and assets when analysing the actual behaviour of any economy. There are only three serious excuses for not making all of macroeconomics explicitly open economy. First, the world economy is closed, and the conditions for aggregating over the whole world are for some issues, such as growth, no more rigorous than those needed to aggregate within an economy. Second, for some questions the rest of the world is not central and can be treated as just another source of disturbances, and third, *it is difficult* (emphasis added). In particular, because two-variable systems are easier to analyse and understand than higher-order systems, adding the exchange rate to a model usually exacts a price in the need to simplify elsewhere in the model.' (537)

The reference is to Fleming and Mundell, whose work in the early 1960s was knowingly simplified in order, as Oliver (1997) put it, '[to neatly marry] Keynesian demand management to economic policy during the Bretton Woods period.' (1)

But is it right to duck an understanding of higher order systems? And is it true to say that we are not able to understand such systems, or is it that we shrink from the theoretical, practical, and policy implications of doing so?

In his *Tract,* Keynes stated the problem thus: '[the exchange rate] ...cannot be stable unless both internal and external price levels remain stable. If, therefore, the external price level lies outside our control, we must submit either to our own internal price level or to our exchange being pulled about by external influences. If the external price level is unstable we cannot keep both our own price level and our exchanges stable. And we are compelled to choose.' (125-126) The converse of Keynes's argument is, however, that we could have both if we could control our external price level, that is, if purchasing power parity were to prevail. In short, if the exchange rate was allowed to float.

Exchange rates could be 'controlled', therefore, by leaving them to the markets, but that means no longer organising the world economy on the $(n-1)$th principle. Obviously, for the image of *all* countries pursuing price stability and floating their exchange rates to work, there needs to be universal adoption. If some countries (or a major one, such as the United States) opt out, or, as King put it, 'benignly neglect' their exchange rates[32] - then the world as a whole remains in beggar-thy-neighbour mode, and it is important to note that the reputation of floating exchange rates as inflationary or impracticable is in the absence of such universality.

Rodrik

Notwithstanding that the assignment problem is only ineluctable if fixed exchange rates are insisted upon, acceptance of this fact, and the international economic integration it implies, is strongly resisted. In a recent paper published by the St Louis Federal Reserve Bank, for example, Rodrik (2000), renaming the

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[32] Citing correspondence with M. R. King, a PhD. candidate at London School of Economics, referring to the run-up to the Plaza and Louvre Accords in the 1980s.

assignment problem as 'the standard trilemma', reiterated that 'countries cannot simultaneously maintain independent monetary policies, fixed exchange rates, and an open capital account...' (180)

He then went on to describe 'a hypothetical perfectly integrated world economy ... in which national jurisdictions do not interfere with arbitrage in markets for goods, services or capital. Transaction costs and tax differentials would be minor, [and] convergence in commodity prices and factor returns would be almost complete...,' (181) and to argue that, because of the assignment problem, 'the most obvious way we can reach such a world is by instituting federalism on a global scale [after the US model] ... [aligning political] jurisdictions with the market, and remov[ing] the 'border' effects.' (181)

The prospect of a global federation is no minor matter, but it arises only because Rodrik ignores the possibility of monetary autonomy, capital mobility *and* floating exchange rates. One understands this from the point of view of the US, but can the prospect be dismissed forever? Inasmuch as the ACB concept relies on it, one could argue that ACB is politically naïve – except that it is a theorem, not a description of current political realities! And yet is not the granting of operational independence to central banks a step in this direction? The concept of auditorial central banking (entailing both goal *and* operational independence in a context of universally floating exchange rates) simply takes this further.

As a geo-political statement, Rodrik's advancement of the US model is telling, of course, but more important is the illustration it provides for Hayek's observation that any real change in the monetary landscape is bound to involve socio-political change also (83-84). The point is that we can pick three if we accept universally floating exchange rates.

This is a historically huge statement, of course, and one may argue that neither current theory and practice nor, indeed, human nature incline towards it. But that does not mean that it cannot be conceived. Cohen (1993), for example, believes the intractability of the 'unholy trinity' problem, as he called it, is due to governments wanting to preserve their role as managers of national economies when faced with the challenge of sacrificing exchange rate stability on the altar of globalised financial markets, which are 'notoriously difficult to control'. (147) Why, though, insist on this prerogative of governments? If it is relaxed, the issue becomes whether governments could defer to 'a self-disciplining regime of norms and rules accepted as binding on all participants.' (153) This would be one thing if imposed from without and, worse, if vested in an international agency with supranational jurisdiction such as the IMF. It would be another, however, if it were a mutually agreed and created approach to monetary policy, and it is important to note here that monetary affairs can be as representative of the public will as government: government because it results from electoral processes; but money because it accompanies all aspects of economic life.

Cohen's discussion is cast in terms of governments' fear of losing exchange rate stability, but the real issue is their reluctance to lose control over exchange rates. In this, however, they may be going against the tide of history. Padoa-Schioppa (1994) notes Lindbeck's (1977) observation that 'the coordination of government actions is increasingly brought about by the 'invisible hand of markets'...' (64) and argues

that unless opting for monetary union, national economies only have two other avenues open to them, either to follow 'consistent and coordinated policies; or [arrive] at such policies through ... capital market integration.' (66)

3.1.6 Monetary Differentiation

The discussion so far has made clear that the ACB concept, as also modern economic evolution, entails a review of our understanding and practices in regard to money. Standard definitions of money are unitary – seeing it as having three (sometimes four) linked functions. Thus Begg, Fischer and Dornbusch (1991) make the following textbook statement: '...the key feature of money is its use as a medium of exchange. For this it must act as a store of value as well. And it is usually, though not invariably, convenient to make money the unit of account and standard of deferred payment also.' (403) In this conception, the means of exchange function is primary, as in: 'Money may be best defined as generally and immediately accepted medium of exchange. In societal terms, the main function of money is to sustain the division of labour by allowing goods and services to be exchanged in a more convenient and efficient way compared to barter.' (Gormez and Capie, 2000: 20) Likewise, Brunner (1986) defines money as something that, '[provides for] the coordination of economic activity in a complex economic organisation... [by way of] a transactions dominating asset, [or, again,] a generally accepted and dominantly used medium of exchange.' (199-201)

At the level of what he calls 'international money', however, Cohen (1971:6) claims that to describe money in this way can be 'downright misleading' in that it refers to 'partial money' (having only one or two functions) and not 'fully developed money' (fulfilling all three functions). For Cohen, means of exchange money can only be seen as fully developed money if it also fulfiills the other two purposes. He warns that the fact that in practice means of exchange-money sometimes equates with unit of account money should not lead one to think they are one and the same, a point also made by Hayek (73).

The point is not academic, witness the 'wildcat' experience in the USA, when private note issues were expressed in terms of the US dollar, or the 750 or so non-par banks in the US at the time Cohen was writing his paper. History has many examples of units of account that either did not exist as currency, or hardly so, such as the Templars' 'livre', Britain's ancient 'pound', the not-so-ancient guinea, and today's euro pre 2002. In short, although the means of exchange and unit of account functions are often conflated, 'there is no logical necessity for the two functions to be shared by the same unit.' (6) But if the several functions of money are not to be conflated, they need to be differentiated.

Space does not permit exposition of the whole of Cohen's argument, but it should be noted that his concept of 'full money' has important implications for central banking and monetary policy. He reiterates the conventional economic explanation of the origin of means of exchange money – as a means to speed up the exchange process while saving on transaction costs both in terms of time saved and inventory held – but notes that another process is at work when one asks why the multiplicity of commodity (i.e. goods

based) - monies that obtains at the barter stage gives way to a suppression of intrinsically valuable goods (wheat, textiles, etc.) in favour of abstract qualities – the durability and gradability of metals, the preference for intangible paper over tangible coins, and the shift from asset to debt money, that is, from 100% to fractional reserve lending.

Not only is this process of abstraction clearly cost saving, it also has enormous social viability, provided the implied rationalisation of choice results from free actions. In that case, one can speak of a 'national numisma' arising from an unorchestrated consensus to use one thing rather than several as money. It is a different matter, however, if such a monopoly ceases to be contestable: if, in other words, it is frozen into unitary legal tender, with all other issue outlawed. For then it is all too easy for the state to displace the citizens as the arbiter of monetary policy. In Cohen's terms, it is at this point that legal tender usurps 'customary money' (demand deposits, etc.) or, in free banking terms, that a unique currency arises by fiat of government rather than as an expression of mutual benefits among otherwise uncoordinated (competing) actors.

On the general subject, Cohen writes as follows:

> 'There is no mistaking the incentive of financial institutions to issue some kind of money. Being a resource-cheap product, money can in effect be 'sold' to the public in exchange for real resources (or command over real resources) capable of earning an income. But it does not necessarily follow, therefore, that issues of financial institutions will begin automatically to circulate as customary money alongside legal tender. The public must be persuaded to buy the product: they must be persuaded to endow it as a medium of exchange with the attribute of general acceptability. They will not do so unless the issuers are capable of satisfying two very rigorous requirements ... of convertibility and attractiveness.' (12)

But it is his subsequent discussion that is the more fascinating in terms of this dissertation. To achieve convertibility, especially where this means 1:1 parity with legal tender, the issuer is required to maintain high liquidity and continual solvency – two crucial disciplines that free bankers regard as best achieved by means of the market. In other words, whatever the denomination of a currency (its unit of account), it must be 'good' money, neither over-issued nor uncovered. The unit of account must *also* be a viable means of exchange.

For customary or private monies to be as attractive as or more so than legal tender (as long as the latter continues to exist), they must be differentiated from commodity money by way of, for example, ease of handling (cheques rather than coins), self-disposal by the customer-owner within the limits of available funds, borrowable in the abstract (overdrafts), and capable of growth through receipt of interest. In all these respects, private issuers have the advantage over governments, the usual issuers of legal tender. To the degree that such attributes escape the constraints of commodity money, however, they refer to the store of value rather than the means of exchange function of money. Just as the convertibility of private money requires the unit of account to be also a medium of exchange, so its attractiveness relies on the unit of account having *also* store of value qualities.

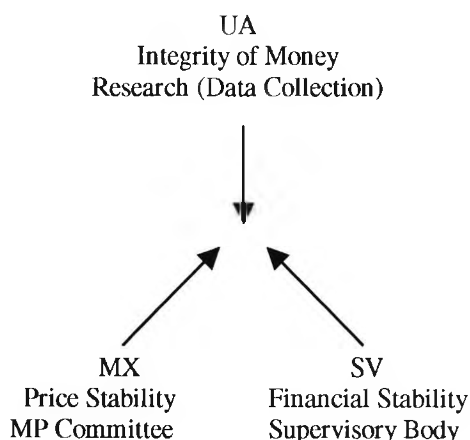
If customary or private money can fulfil all three functions then it meets Cohen's definition of a 'fully developed money'. In doing so, it also suits itself to being an international or global money because it is

grounded in economic reality on one side and free public acceptance on the other. In contrast, legal tender is predicated on fiat and enforcement.

Institutional Corollary

In ACB terms, the question here is not which form of monetary regime should prevail – free or central banking, for example - but what arrangements accord with today's underlying historical and economic realities? In other words, where should the three functions of money have their 'homes'?

Once one differentiates between the three main functions of money, is it not reasonable to expect these to have a corollary in the way monetary affairs are conducted? The sketch below illustrates an intuitive response to this, suggesting an important division of labour within central banks consistent with the distinction between money's functions. It is also interesting in that it has an affinity with recent developments at the Bank of England – see discussion in Section 6.4.



Sketch 3.3: Monetary Differentiation

To consider the institutional corollary to differentiated money in this way is an important part of this dissertation, because it helps characterise the difference between dependent central banking, central bank independence, and auditorial central banking. Although these categories are considered in detail in Section 3.2, it is as well to preview them here.

Dependent central banking is characterised by the central bank being a department of government, with a wide range of functions related to the many economic objectives a government often has – not only price stability, but growth, full employment, and so on. In the dependent central bank all these elements are under one roof in a unitary arrangement, in which can also be located the three main functions of a central bank from an auditorial central banking perspective. Typically, the dependent central bank fulfils its functions by way of direct monetary techniques and involvements.

Although a misleading term in certain respects, *central bank independence* seeks to modify this situation so that the central bank, while it may continue to fulfil a range of functions on behalf of government, is

increasingly focused on monetary policy. This, at least, is the UK image, as described by Paul Volcker[33] when referring to a meeting with the staff of a Conservative Parliamentary Committee:

> 'They see the central bank as the technical implementer of monetary policy as decided by the chancellor. He says what the target is; he says what the tools should be. The monetary policy committee is the experts. They go out and mechanically achieve the target, but they are not setting policy. They are implementing it. I objected to that conception, of course, but that is one logical exposition of what the British now do. You have taken away the regulatory authority of the central bank; you have taken away discretionary monetary policy. What's left? Take away debt management, too. It's not quite reducing it to a computer, but in that extreme conception there is not a lot left.'

In this concept, two main functions are removed quite deliberately – debt management on the part of government and regulation of financial institutions (supervision).[34] A mild version of double independence, perhaps, the concept is intended to give the central bank a single and clear task for which it can be directly accountable – not only because it is the author of its actions, but because it does not engage in other activities that would (or could) result in a conflict of interests. Under this model, the central bank is seen as the agent of a principal, with the principal being the government of the day.

In the experience of Adrian Orr[35] at the RNZ, where the central bank independence model has arguably found its 'purest' expression so far, the process is one of the central bank 'being peeled like an onion over time, in search for its core.' Taken to the extreme, the structural consequence is to reduce the central bank to the conduct of monetary policy with only such other functions as are necessary to this and which it is necessary to keep 'in house'. This comes down to the deliberations of a monetary policy committee, with the informational context of its decisions supplied by a research department, and implementation effected through the departments that execute such tasks as open market operations, reserve requirements, FX interventions, and liquidity and payments maintenance, with supervision maintaining financial stability.

However, once one has reduced the central bank to a monetary policy committee acting in the context of research and analysis and presupposing or with the benefit of a stable financial environment, do things need to stop at that stage? Indeed, are they able to? One could envisage a further evolution whereby both research and analysis and financial stability leave the central bank, because other agencies carry them out or they become virtual, or they are privatised in some way. On the side of research and analysis, insofar as the provision of an informational context is a task requiring no decisions, like a bookkeeper producing management accounts, it could also be envisaged as a privatised or virtual agency and, indeed, this role within central banks competes with similar, sometimes more powerful analysis being done by rating agencies and in financial institutions themselves. Similar can be said of supervision. The RNZ retains supervision mainly because it involves a mere dozen people. Francisco Gros, formerly president of the BCB,[36] says, 'The regulator is becoming so puny in terms of size and capability and even in terms of its financial savvy vis a vis the regulated bodies, that it is becoming more and more ineffectual or less and

[33] An interviewee for this research – see Section 5.3.1.
[34] Care here. The Bank of England, though thus shorn, remains in close touch with the FSA, who are all previous Bank staff, see Goodhart interview in Section 5.3, while the 1998 Act allows the debt management function to re-operate under certain conditions.
[35] An interviewee for this research – see Section 5.3.1.
[36] An interviewee for this research – see Section 5.3.1.

less effective. When I look at the level of sophistication that a private bank like this one[37] has vis a vis the instruments that the central bank has... they are still in the horse and buggy era!'

Structurally, therefore, central bank independence moves in the direction of the central bank reducing to a monetary policy committee (or its equivalent). In this respect, it shades into the auditorial central banking model, which also places emphasis on single objective monetary policy. The difference is that the auditorial central bank reports to parliament, not to the government, enjoys goal independence, and all its functions are of an indirect, signalling nature. It also lets go of key functions usually still retained by the independent central bank – such as open market operations, reserve requirements, foreign currency intervention, and liquidity and payments systems maintenance - not by merely 'dropping' these functions, but either because they have become redundant or because they have been virtualised, that is to say, the locus of responsibility for them is now in the markets, among the actors. In a picture, investigating visits and external regulation are replaced with heightened reporting requirements based on frameworks that not only report on the activity of financial institutions, but also engender stable or stabilising behaviour on their part - capital adequacy, full disclosure, robust payments systems (including those at the central bank), etc.

The Changing Relationship between Cash and Credit

The idea of differentiated money has one further important consequence concerning the relationship between cash and credit, that is to say, the money multiplier and the way in which 'fountain pen' money comes into being. At its simplest, this technique is one whereby, given a reserve ratio, banks issue credit by *n* times the amount of money deposited with them, a process that is magnified by inter-bank deposits.

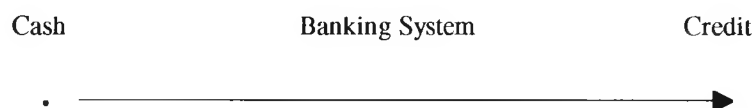
Notwithstanding scathing condemnation of it by many detractors of modern banking,[38] fractional reserve lending originates with the goldsmiths as a reflection of reducing rates of withdrawal by depositors, who were thus the real authors of the process. One needs to be wary, therefore, of seeing banks as the originators of processes, which in reality they reflect. Banks may seem to issue credit in the abstract, but they do so in response to demand.

As long as the banking system is the main medium for credit creation, its role is crucial. However, under modern conditions, if the supply of credit becomes restricted, credit seekers go outside the banking system, prompting financial innovation on all sides. The continuing relevance and effectiveness of the money multiplier – or at least our understanding of it – must, therefore, be at issue in an increasingly virtual financial world.

[37] At the time of the interview Senor Gros was managing Director of Morgan Stanley Dean Witter in Brazil.
[38] Rowbotham, describing the goldsmiths' activities as 'the antecedent of today's financial system', says 'its historical origins [are those] of pure deceit and counterfeiting.' *Confronting Tyranny, the Case for Monetary Reform and Economic Democracy*. Self-published, 1997, p.178.

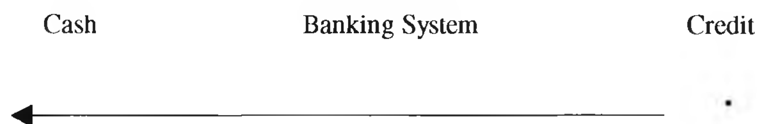
Having their origins in conditions that obtained three hundred years ago, both practice and concept belong, in the argument of Roger Bootle,[39] to the world of diminishing returns. However, today's conditions are those of 'weightless economics', characterised by continually *increasing* returns (to consumers, what is more, rather than producers), and calling for a corresponding change in concept and practice as regards processes outside the banking system.

The following sketches illustrate a crucial epistemological consideration in this regard (the solid points and arrowed lines represent the essentially cause-effect nature of modern economic thinking; the terms 'cash' and 'credit' are from Keynes's *Tract*). Descriptions of the money multiplier usually see the causality originating in the deposit (cash), which is then multiplied by the banking system (credit):



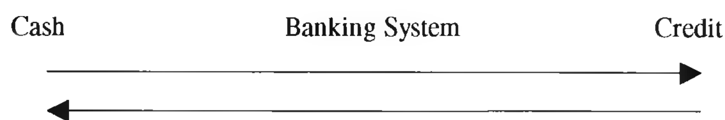
Sketch 3.4A: The Changing Relationship between Cash and Credit

The process can also work in the other direction, bringing with it the risk that uncontrolled credit creation can inflate the amount of cash:



Sketch 3.4B: The Changing Relationship between Cash and Credit

Combined, one has the reflexive image of Soros, mentioned in Section 3.1.2, in which it is not easy to distinguish cause from effect and which would seem truer to current circumstances:



Sketch 3.4C: The Changing Relationship between Cash and Credit

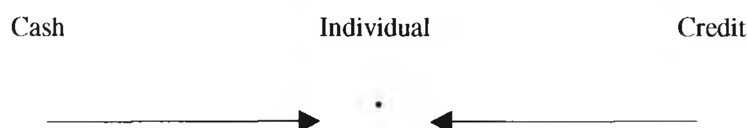
Reacting to the 1998 case of LTCM and to unregulated financial markets generally, there is a growing body of opinion that argues for the first of these cases, namely, that credit should be a 'subset' of cash, that money should have 'real' backing and even, in the case of the monetary reformism movement (Section 3.2.3), that fractional reserve lending should be abandoned as anti-social. This view contrasts

[39] Speaking to the Economic Research Council, London, 8 December 1999.

directly with conventional understanding, which, like Keynes's 1930 concept of 'money of account' or 'proper money', sees cash as a subset of credit.

The reality, of course, involves both, but if financial evolution is not to become beset by an either/or debate, let alone an actual struggle between pro-banking and 'bank-bashing' sections of the community, it is crucial to move the discussion to another level, to access another dimension, one in which the locus of decision-making moves out of the banking system into the actual behaviour of economic actors.

This topic is too vast and controversial to elaborate further here, yet too crucial to have ignored altogether. Suffice it to say, that, seen as a sketch, the next level up entails a decoupling of cash and credit, so that, by accepting two dissimilar starting points we will arrive at their meeting point or interface. Peter Andrews at the Bank of England,[40] commented that decoupling is already present 'because cash, the creation of which is a statutory activity, is prescribed by various Acts and credit creation is a private sector activity. We do not, of course, regulate the quantum of credit, and neither does the FSA, although capital adequacy ratios no doubt influence that and so does liquidity policy, and so, indirectly, does monetary policy.' And even Hayek seems to allude to it: 'So far as people want more liquid assets solely to hold them but not to spend them, they can be manufactured without thereby depreciating their value. But if people want more liquid assets in order to spend them on goods, the value of such credits will melt between their fingers.' (106) In this way, perhaps, one can give expression to the difference between weightful and weightless economics, thereby distinguishing between two realms, which the multiplier concept otherwise sees as linked and, therefore, treats as one.



Sketch 3.4D: The Changing Relationship between Cash and Credit

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3.1.7 Virtual Finance

This section elaborates the notion of virtual finance introduced in Section 1.3. It draws on a paper – 'E-money, Free Banking, and Some Implications for Central Banking' - written jointly with Yuksel Gormez of the Central Bank of Turkey, and reproduced in 'Topics in Electronic Money', Y Gormez, Ph.D Thesis, CUBS, October 2000, p. viii – Sketches 8.1.1 – 8.1.5; Chapter 8.1, pp. 168-202.

'Virtual finance' refers to three distinct but inter-related phenomena of recent times. First, information technology with its three main effects – ever-increasing computational power, the reduction of time differences, and the 'democratisation' of finance, referring to the way that personal computers and on-line banking have familiarised end-users with processes that were formerly the province of bankers and the

[40] An interviewee for this research – see Section 5.3.1.

authorities. As a result, banking is losing its mystique and mystery. Indeed, electronic finance is giving everyone the tools to act as bankers themselves. The advent of self-administered banking - telephone banking, online banking, computer-based accounting – enables and promotes the individual person or organisation, household or firm, as the locus of financial awareness and responsibility.[41] Banks and the banking system generally are thereby rendered more and more a resource or tool and less and less the determinant of their clients' financial actions.

Second, the rise in nonbanks and private money issue, ranging from 'complementary currencies' such as LETS and Time Dollars,[42] through corporate barter arrangements in the conventional business world,[43] to experiments in bank-created e-money such as Mondex[44] and Internet-based currencies such as Beenz,[45] to the finance houses within transnational corporations, such as GM Capital. Mention is made of Mondex in particular because it is one of more than fifty e-money proposals with very different approaches to micropayment solutions on the Internet, and one of the few to allow person-to-person transfers without the involvement of financial service providers. It is worth noting that almost all the major banks now operate Internet-based services. There are also non-bank initiatives, such as Prudential Insurance's 'Egg', which has received deposits of more than £6 billion in less than two years. Such developments can only be reinforced by the fact that the fixed investment necessary for an Internet bank has fallen to around $1 million (Gosling, 1999), suggesting substantial structural change in the establishment of banks.

Third, the emergence of e-money – both narrow (electronic payment methods, such as debit cards and Mondex) and wide (electronic issue of private money outside the banking system). 'E-money is not the only technology that decreases demand for base money, but it has the potential to create independent clearing and settlement arrangements that seem to threaten a central bank's independent conduct of monetary policy.' Gormez and Capie (2001:21)

A further dimension of technological innovation is that it makes ever more apparent the record keeping function of money, an arguably central aspect of finance and banking. Whatever other functions banks provide, whether these be credit creation, intermediation or settlement, they all rely on the precision and objectivity of their record keeping. A bank, however, presides over a totality of information, which none of its clients possesses individually. Imperfect information results in each client seeing only his own account details, never the whole, which the bank alone is privy to. For this reason, making the record keeping function of money more self-evident has important consequences, not the least of which is that it robs banks of any roles (and therefore the earnings therefrom) that rely on their knowing about and being able to perform their accounting role separately from their customers. As Bingham[46] observes, 'one can

[41] In terms of good financial management, the same effect could be expected on the part of governments, and indeed NGOs, were these entities to be conceived and operated in the manner of commercial organisations.
[42] There are over 2,500 examples worldwide, mainly in the US, Canada, Australia, New Zealand and Britain, but also in France, Belgium and Italy. They typically have less than 300 members, often people from 'alternative life-style' movements.
[43] The oldest established is the WIR system in Switzerland. Founded in 1934, it now has over 60,000 members and an annual turnover in excess of 2,500 million CHF.
[44] www.mondex.com, www.mondexinternational.com, www.mondex.ca, www.mondexusa.com
[45] www.beenz.com
[46] An interviewee for this research – see Section 5.3.1.

credibly argue that banking is yesterday's industry. That it is being eroded, much of financial integration is taking place through financial markets, and many of the earlier functions that have taken place by electronic communication and that banking is shrinking very much in importance.'

It is perhaps paradoxical that, even though conducted on a for-profit basis, the process at the heart of banking is essentially a societal one arising from the division of labour and amounting to the provision of increasingly symmetric information. Yet for this reason, both the overall accounting role of money and the resultant overview this provides will continue to be services valued by non-bankers and as long as division of labour prevails will probably always be located in banks, thus assuring bankers of remuneration for this role at least. Insofar as banks carry out other functions, however, none of them is as core as its bookkeeping service and none of them can as reliably be assumed to belong to banking on a permanent basis.[47] Deposit-taking (savings) and credit creation come especially to mind, since other ways of saving compete with the banks, thus reducing their role in credit creation. More importantly, the more money can be created outside the banking system – in the financial markets, for example, or in the folksier LETS schemes - the less does its issue rely on bank deposits.[48] It is this, too, that underpins the idea of the institution at the centre of such a system, namely the central bank, becoming auditorial.

E-Money

The emergence of e-money merits further attention. The formal definition offered by the European Central Bank (1998) is as follows: 'an electronic store of monetary value on a technical device that may be widely used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument.' (7)

Because it does not specify the type of technical device used, such a definition serves as a useful starting point and is well suited to a development that is in an emerging state, and of which the full technical potential remains unclear. It is unsatisfactory, however, in that it does not distinguish clearly enough between two quite distinct meanings of e-money: the narrow meaning of an electronic payments medium and the wider one of electronic issue of money. These meanings are of course related, but their relationship may not be straightforward. As long as it is representative of legal tender under a given monetary policy framework, narrow e-money is a form and extension of cash generally, an addition to coinage, notes, cheques and debit cards. It is, moreover, nominal in its effects - such as increasing velocity - and may be regarded as neutral. Even so, it has important implications for the current monetary framework, in that it makes for easier payments, revolutionises monetary base management, and enriches currency choice through making it easier to use several currencies and/or to switch between them.

[47] Hayek notes: 'The profits from the issuing business (which amounts to borrowing at zero interest) will be very large and it does not seem probable that very many firms can succeed in it. For this reason services to the enterprises basing their accounting on a bank's currency would be likely to become the chief weapon of competition, and I should not be surprised if the banks were practically to take over the accounting for their customers.' (94)
[48] See the discussion by Ben Friedman, *The Future of Monetary Policy*, International Finance, November 1999.

The impact of e-money would seem to be most significant, however, when it comes to the electronic issue of non-bank money, that is, money issued without reference to banking reserves. Furthermore, in cases such as GM Capital, such credit facilitates the use of 'imaginative' and fungible backings such as indices, positive cash flow, or, indeed, anything else that an entrepreneur may choose.

This takes one into the free banking concept, of course, where fungibility of cover is supported by the clearing house system, which does not arbitrate over what the 'right' cover should be, but leaves it to the market. After free banking theory, multiple currencies do not proliferate, but are subject to rationalisation. In their ultimate expression of self-administered banking (home banking, etc.), one can envisage one currency per person.[49] This is wholly impracticable, however, since trade and division of labour even between two people requires a common element, a universal language enabling communication. It is said that multiple currencies imply a world-wide bank; England (1996) gives the example of Citibank's multi-currency account service. But surely this, too, requires a common language? However many names we give to our separate currencies, they need to be linked. To be sure, these linkages do not need to be determined, as under the gold standard, from gold via a primary currency, thence to all others. Rather, the independently determined currencies will coalesce in an implied reciprocator ('best basket') or a shared unit of account. Parities may not all be 1:1, but parities will be needed and they will need to be based on floating, so that market forces can be allowed to work to discover the best denominator.

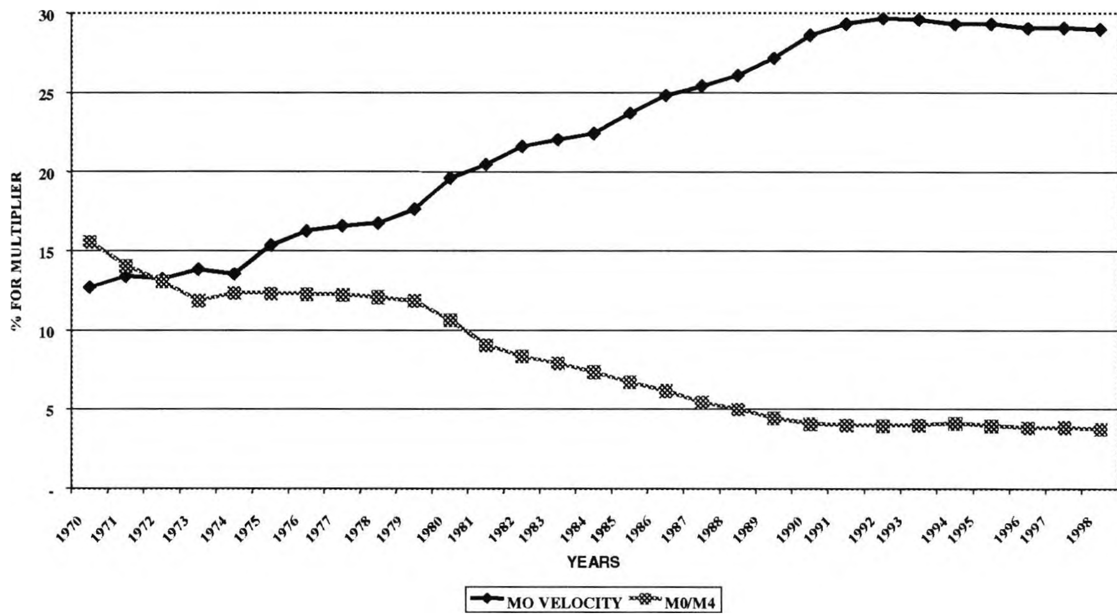
Insofar as this scenario takes us beyond national economic considerations and the world economy at large becomes our primary frame of reference, it touches on the need, at least as advocated by Hayek, to denationalise money. This, as is readily conceded, leads to a shrinking number of currencies – the logic of which may be the universalisation of finance. Global financial markets and electronic finance in particular do not respect national monetary jurisdictions, so that their impact must be to promote homogeneity in the fields of monetary policy and supervision, and thus the denationalisation of money. Indeed, for this purpose, there could hardly be a more effective means than e-money.

Monetary Base Implications

Lastly, there is the fact that, as a seemingly inevitable process in history, the monetary base as a proportion of total money stock has been diminishing for quite a long time. Indeed, it may be that one of the more important effects of virtual finance is its potential to change totally the traditional management of the monetary base. Chart 3.1 shows UK trends since 1970 for the velocity (defined as total GNP divided by total monetary base (GNP/M0)) and money multiplier (defined as monetary base divided by total money stock (M0/M4)). In the period prior to 1990, the proportion of monetary base in the total money stock decreased to as low as 4%, while velocity more than doubled to nearly 30%, a phenomenon that echoes the huge shift in proportion between trade-related and speculative transfers in the same period.

[49] This idea was recently described by Mark Salmon (1999) as one of two theoretical but impractical extremes on a spectrum, the other being a single world economy.

CHART 3.1: VELOCITY AND M0 WEIGHT IN MONEY SUPPLY



The changing composition of the monetary base is furthered by improvements in electronic payment instruments such as debit and credit cards and the development of same-time financial applications such as direct credit and direct debit. Indeed, it is not difficult to imagine that, in a perfectly digitalised or electronic payment infrastructure, in which all manner of transactions including micro payments are effected through digital transfer of value from payer to payee, the record keeping nature of money will enable the identification of any potential lack of demand (within the registered economy at least) for banknotes and coin as a medium of exchange. The impact of e-money – both narrow and wide – on the monetary base is not inconsequential, therefore.

3.1.8 Monetary Base Control

A study such as this one would not be complete without reference to monetary base control. As represented by Pepper and Oliver (2001), the argument concerns the need, as they see it, to control bank lending so that credit does not overwhelm cash. In their own (slightly reorganised) words, the essence of their conception is as follows (pp. 83–85):

> Under monetary base control, the wide monetary base - banks' deposits with the central bank[50] and their vault cash, plus notes and coin in circulation with the public - is controlled without a mandatory ratio for bank reserves. In order to give monetary policy a firm foundation, the central bank controls the growth of its own balance sheet, selling assets if it is growing too quickly, for example, a bill in the domestic money market or foreign currency in the foreign exchange market;

[50] Pepper and Oliver mention the Bank of England specifically, but in this version the point has been generalized to help make the thesis clearer and give it added force. The tense has also been changed to the present for the same reason.

buying assets if its balance sheet is growing too slowly. Relinquishing the role of lender-of-first-resort, the central bank decides on the quantity of bills (and repos) in which it deals each day in the money market instead of dealing in whatever quantity of bills the banks want (albeit at a price of the central bank's own choosing). This allows short term interest rates to be determined by market forces instead of the central bank. Undisciplined balance sheets are frequently the closest-to cause of financial crises.[51] If a crisis does occur in spite of monetary base control, last resort lending has complete priority.

Broad money fluctuations of less than about six months having no significance for the economy, precise monetary control is only desirable if a monetary target is being used for political purposes. Monetary base control offers a desirable[52] mechanism for preventing progressive departures of the money stock from target.

With the central bank not acting as a lender-of-first-resort, banks need substantially larger reserves than at present and, with no mandatory ratio for bank reserves, interest rates will fluctuate more under monetary base control, but such fluctuations are kept to an acceptable level by sufficient buffers built into the system. Large fluctuations in interest rates over the medium term are far more disruptive to the economy than short-term fluctuations. Monetary base control stops medium-term ones from occurring because it stops interest rates from being changed by too little, too late, as has happened so often in the past.[53]

One great advantage of a wide monetary base is that it further de-politicises monetary policy because it is the aggregate least prone to distortion because, in turn, its components are liabilities of the central bank and cannot be manufactured.

Under monetary base control, markets know that the monetary base increases by a certain percentage each day. Changes in interest rates depend solely on market forces and not on action by the authorities. This eliminates uncertainty caused by the authorities and the waste of resources spent on central bank watching and trying to second-guess the authorities. Monetary base control exerts some direct influence on bank lending. Automatic overfunding or underfunding offset the behaviour of bank lending. Pressure is spread across markets and assets, and asset allocation is determined by normal market criteria instead of being administered by officials.

[51] 'Financial crises usually occur after banks' balance sheets have been allowed to grow at an unsustainable rate for many months.' (84)
[52] And apolitical? – CHB.
[53] This point is eloquently made in Pepper's anecdotal 'Official order: real chaos', Economic Affairs, IEA, February 1991.

Under monetary base control, then, competition in interest rates is in the context of reserves controlled by the central bank disciplining its own balance sheet on strictly economic and apolitical grounds. The emphasis is not on fiscal policy or controlling wage-driven inflation because it assumes these problems have been remedied (for the time being, at least). The question it asks is what happens when, under today's benign circumstances of generalised low inflation and fiscal discipline, credit is still created but directed into assets and then into goods, as when mortgages become cheaper, house values rise and people not only borrow more but spend it on their properties or, worse still, on day-to-day expenditure. In a word, what is the effect of lending undertaken with scant regard for real ability to service or repay the borrowings? 'It must be appreciated that bank lending has two effects. The credit transaction is one-off... [but] the fountain-pen money that is created by the credit transaction has a continuing effect as the money passes from hand to hand and is spent.' (88) The examples mentioned are the Barber and Lawson booms of 1972 and 1988 respectively.

Pepper and Oliver ask how is fountain pen money to be controlled, not in a retrograde way but by an arrangement 'that restricts the growth of the banking system as a whole but not the freedom of an individual bank to compete with other banks'? (90) Pepper and Oliver regard capital ratio control as inadequate and requiring implementation too standardised to retain flexibility, while the 'one club' interest rate method has unbalanced effects: the one high rate may impede asset values but be too high for manufacturing, etc. The idea that every dog has its day, as Orr described the New Zealand approach, presumably leaves them unimpressed.

In terms of this dissertation, insofar as monetary base control seeks to discipline financial markets as well as governments but to do so on strictly free market terms, it gives rise to two interesting operational questions:

1. Given that credit is created from 'all over' and in increasingly virtual fashion, how are nonbanks to be brought into the monetary base control net? (The authors' response is that even nonbanks rely on the central bank as lender of first resort.)

2. Would the transposition of credit into consumer spending not be addressed were a formal distinction made between cash and credit, as outlined in Section 3.1.6?

Monetary base control presupposes causation going from the monetary base to the wider economy and places reliance on the traditional working of the banking system, that is, the link between cash and credit (M0 and M4). Paradoxically, it is advocated in response to the very opposite circumstances whereby under modern conditions credit creation can result in causation passing from the wider economy to the monetary base, while the traditional relationship between cash and credit is no longer reliable.

The suggestion of decoupling cash and credit advanced in Section 3.1.6 has relevance here in that it envisages bringing economic actors alongside the banking system, calling on them to be aware of

processes and phenomena that previously were the province of 'the authorities' and were susceptible to direct management. The suggestion is that, whereas monetary base control may well be the way forward *within* the banking system, it needs to be accompanied in the nonbank world by the next step on – what one might call the behavioural counterpart to reflexivity.

It is difficult to see how the effect sought by monetary base control – a harmless impact on inflation and investment in non-financial sectors of the economy – can be achieved 'outside the box'[54] without a change in the conceptual basis of monetary and credit policy and, therefore, a change also in their manner of implementation. To paraphrase Einstein: it is not always possible to solve problems with the same thinking that gave rise to them.

The context of unconstrained credit creation is the intensive financial liberalisation of recent times and the encouragement this has given to financial individualism, using the term non-pejoratively. With that particular genie out of the bottle, it seems anachronistic to try to control credit creation from outside. Appeal has to be made instead to individual actors to bring their actions in line with economic realities and to do so consciously and out of their own volition. The concept advanced here seeks to make these realities more self-evident by the way in which modern finance is structured and described. For unless people see erratic effects as a problem, they are unlikely to change their behaviour. Even if they sense the issue, it will be expected that others first show the way. A redescription of finance is also needed in order to avoid people being disoriented by a discrepant vocabulary that serves only to reinforce their sense that the problem is a matter for 'the authorities', even though the authorities see their main problem as getting people to act in a more economically informed manner!

Whereas monetary base control may be the appropriate future for the creation of credit by the banking system, therefore, as regards virtual finance it seems inapt. This is not to challenge monetary base control per se, but to question the extent of its relevance and the width of its remit.

3.1.9 Seignorage

As will be seen in the section on monetary reformism, an important aspect of this enquiry concerns where seignorage should be located in an economy not subject to political interference. While not wishing to digress, some transformation of seigniorage seems to be implied by the logic of today's developments, so that omitting any mention of it might have suggested that this aspect of the financial system would be unaffected, an unlikely event that it would have been disingenuous to ignore.

Seigniorage is variously defined – as 'revenues from changes in base money' (Grilli, Masciandaro and Tabellini), or as 'revenue [collected] through money creation' (Cukierman, Edwards and Tabellini, 1990). And it is recognised that '[l]ack of credibility [often] results in an excessive reliance on seignorage revenues.' (Grilli, Masciandaro and Tabellini, 1991:365) This supports the case for central bank

[54] The language used by Frederik Musch when interviewed at the BIS.

independence, price stability, low public deficits and no government debt financing, and is what led Rogoff (1985) to claim that it is 'desirable to have a central bank's operations financed in such a way that its expenditures[55] are independent of the government's seigniorage revenues,' (213) a point taken up in Chapter 4.

Furthermore, Cukierman, Edwards and Tabellini conclude that a government's interest in seigniorage is the greater the less effective is its tax administration and collection, which in turn increases where there is more political polarisation and instability. For this reason, governments of a totalitarian persuasion tend to opt for seigniorage by 'fomenting' political uncertainty and 'deforming' the tax system.

If this is so, the converse argument is that the more cross-party and apolitical economic life becomes, the greater will be the efficacy of the tax system, as also the government's interest in it being so. Similarly, the government would minimise its use of seigniorage, eventually relinquishing it altogether.

Already of reducing importance in a world of increasing virtual finance, in auditorial central banking terms, note issue and the related seignorage would not be a role of or, therefore, a source of income for government. In keeping with the idea that the auditorial central bank operates neutrally to the financial flows it 'audits' (listens to), while it might manage note issue on behalf of the economy and generate a fee income for this purpose, the related seignorage would not belong to the bank. To the extent that public money issue continued, seignorage would either be located in some kind of commission (which could be a 'privatisation' of a central bank's issue department), where its use is clear to and of benefit to all, or else note issue would be managed to achieve zero seignorage, thus removing what is effectively a tax.

This idea is not so far from reality. The recent financial turmoil in Russia, for example, may have had much to do with the Russians not having appreciated that the inflationary effects of manipulating the domestic monetary base would invite currency substitution and thus undermine the financial system. In the Russian case, it is likely that any seigniorage gains expected were more than cancelled out by the punishing short-run interest rates that the mis-management incurred, as has been the case in other such situations.[56]

This hardly makes a case for seigniorage. On the contrary, seeking income from the printing of money is likely only to cause distortions in the money stock, leading to monetary and financial crises.

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[55] And income? - CHB

[56] In Turkey, for example, in 1994 overnight interest rates jumped to over 1,000%.

3.1.10 Regulating Financial Markets, Financial Liberalisation, and Regulatory Change.

It is not possible to consider the subject of modern central banking without taking into account three related themes – the regulation of the financial markets, financial liberalisation, and regulatory change.

Giddens (1998) is representative of many when he states, 'the regulation of financial markets is the single most pressing issue in the world economy...' (48) He is one of many advocates of regulating financial markets. In the 1970s, Tobin (1978) proposed a tax on speculation intended to slow down the speed of global finance by making a charge on its profitability.[57] Mendez (1995), a former senior UNDP official and one-time advocate of the Tobin tax, proposed instead a foreign currency exchange under the UN which would 'bring order and efficiency to the present chaotic market and ... generate vast revenues from licensing and user fees.' Malkiel and Mei (1998) have argued for an international stability fund, financed by participants, to provide 'limited and co-ordinated currency market intervention' as a way of 'dramatically [increasing] the potential loss for currency speculators' and thus deterring speculation and dampening volatility. Grieve Smith (1998) advocates 'appropriate regional stabilisation arrangements, [so that] global management would then start by managing the relations between the dollar, the yen and the euro/pound, perhaps aided by a new international stabilisation fund under the IMF.' Critical of the IMF because it places international stability above domestic stability, Soros (1998) proposes an International Credit Insurance Corporation, funded by the G7 and acting as a sister to the IMF 'to curb speculation without incurring all the harmful side-effects of capital controls.' (194)

The problem is not new. In the early 1940s in connection with his International Clearing Union, Keynes famously said, '[the day will come when] loose funds may sweep around the world disorganising all steady business. Nothing is more certain than that movement of capital funds must be regulated.' The issue has resurfaced because, with the lifting of the Bretton Woods constraints, the underlying processes of financial liberalisation and regulatory change have accelerated. Any suggestions of re-regulating the financial markets, therefore, will need to displace the prevailing neo-liberal orthodoxies, surely today an enterprise of uncertain outcome.

In the ACB perspective, financial liberalisation and regulatory change are twin phenomena in reflexive relationship. That is, neither one causes the other, but both reflect the globalisation of economic life. To displace current orthodoxies is not, therefore, the ideological dispute many see it as, but a matter of challenging deep historical trends. If change is needed, it is more likely to entail 'trim tabbing', facilitating conceptual and structural adjustments to the global nature of modern economic life.

[57] At ½ % per annum on 150 billion USD, its current day proponents argue that it would both 'calm' the financial markets and generate a substantial global resource.

Financial Liberalisation

Understood, not as an ideology, but as an approximation of the requirements of opening national economies to the global nature of modern economic life, financial liberalisation can be seen as a key tool for modernisation. Dating from the 1950s, its history can be tracked through many stages, mostly originating in the US and the UK but with effects for the rest of the world. Chart 3.2 provides an overview of the main landmarks in this process.

Although Dorene Isenberg (1998) describes financial liberalisation as having been 'sequentially introduced', (141) this is to benefit from hindsight. Financial liberalisation has been a patchy affair with a number of sources, ranging from the influence of free market ideology to pragmatic innovation of CDs to by-products of modern history, such as the emergence of the euro markets from the wish to trade in dollars without their being subject to US political and fiscal jurisdiction. Chart 3.3, derived from a wide trawl of the literature, is by no means exhaustive nor does it represent an attempt to make absolute sense of so many influences and variables. For the purposes of this study, this would be a hopeless and unwarranted task.

Needless to say, a substantial literature exists on financial liberalisation and related topics, the foundations of which were laid by Robinson and Pettway (1967), McKinnon and Shaw (1973), Pringle (1974), and Taggart and Greenbaum (1978). McKinnon and Shaw used the language of 'financial repression'. A great deal of social change has resulted from the subsequent overcoming of such repression - a vast episode reviewed by Williamson and Mahar (1998), who express the essential signature of this development in the following way: 'Financial repression means government determines who gets and gives credit and at what price... Conversely, liberalisation can be characterised as the process of giving the market the authority to determine who gets and grants credit and at what price. Full liberalisation involves the government's also allowing entry into the financial services industry to any company that can satisfy objectively specified criteria based on prudential considerations (concerning capital, skills, and reputation), giving banks the autonomy to run their own affairs, withdrawing from the ownership of financial institutions, and abandoning control over international capital movements.' (2) They go on to describe an (ideal) sequencing of liberalisation:

> 1. Stabilise macroeconomic environment ◊ 2. Carry out real sector reform
> ◊ 3. Establish prudential supervision of finance ◊ 4. Deregulate domestic finance
> ◊ 5. Deregulate external finance

This sequence forms the basis of Chart 3.4, to which, however, has been added a large number of details not mentioned by them. However, financial liberalisation has seldom been as straightforward as the chart suggests. The manner in which it occurred varied from country to country and was often initially naively interpreted or implemented as a simple process which would meet with ready acceptance. Hanley (1984) indicated the range of change that financial liberalisation implies when he described five main responses to deregulation:

1. performance variability
2. pressure on profits and intensified product competition
3. unbundling of products; proliferation of new ones
4. spreading out of range on which need to compete
5. capital requirements increase to meet cost of change, including loss of profits.

From this it is clear that, notwithstanding the fact that deregulation also provokes innovation, not many stones are left unturned by the adoption (or imposition) of financial liberalisation. Indeed, its intended beneficial effect depends on the economy's 'flexibility' and 'institutional responsiveness' (Killick, 1995), meaning a country's prior suitability to the proposed changes and the speed with which they can be introduced without negative effect. Moreover, as Fry (1996) observes, 'to be successful, financial liberalisation must be accompanied by fiscal reform aimed at ensuring that government debt will not explode in the aftermath of ... liberalisation. Successful financial liberalisation also requires sound prudential regulation and supervision, the restructuring of insolvent financial institutions, and the imposition of hard budget constraints on state-owned non-financial enterprises.' (ii)

Chart 3.2: 'Main Event' Chronology of Financial Liberalisation

Date	Generic Feature	Comment
1950s	(UK) Euro markets	To get round RQ[58] and RD,[59] and
1960s	Eurodollars	
1960s	Credit cards	
1960s	Leasing	
1960s	Federal funds	
1960s	Repurchase agreements	
1961	Certificates of deposit (CDs)	per Citicorp to circumvent RQ
1964-8	(US) Voluntary Foreign Credit Restriction Act	allow US banks to go overseas and foreign banks to come to US
1971	Closing of gold window	
1973	Abandon Bretton Woods	
-------	-------	-------
1974	1st oil price rise	
1974	(US) Abolition of international capital flow controls	
1978/9	(US) International Banking Act	To level field US: foreign banks
1980	Swaps	
1980s	Eurobonds, Eurocurrencies	
1982	(US) RQ suspended	
1982	Currency options	
1982	LIFFE established	
1983	Forward rate agreements (FRAs?)	
1981-7	(US) Relaxation of Glass-Steagall Act	Desegregation of banks:non banks
1986	(US) RQ buried	
1986	(UK) London's 'Big Bang'	Goverment promoted
1987	(US) Fed allows Section 20 companies	banks enter capital markets via affiliates
1987	Cooke Committee proposals	Capital adequacy

[58] Capped interest rates on time deposits.
[59] RD = Reserve Requirements

Chart 3.3: Sources of Financial Liberalisation

1. The Globalisation of Finance

Regulatory avoidance and deregulation
Crime money
Tax evasion
Lobbying

2. The Rise of Market Theory

Market discipline instead of regulation
Efficiency of free markets
Austrian school
Free banking
Pareto optimality
Money is not a public good
Less interventionism

3. Policy Shifts

Dismantling union power
Privatisation (of state enterprises)
Internal free markets
Trade liberalisation (no cartels, remove tariffs)
Off-shore finance
Tax havens
Central bank independence
Single objective monetary policy
Floating exchange rates

4. Organisational and Technical Change

Innovation
Black-Scholes formula, portfolio theory
Institutionalisation - desegregation of banking and finance, leading to dominance of insurance, pension, and mutual funds
Securitisation (pro nonbanks)
Risk diversification
OBS transactions
- commitments
- guarantees
- market related transactions (derivatives - options, swaps, futures, etc.)

IT and computers:
- program trading (from 1982)
- electronic payments systems

Chart 3.4: Sequencing Financial Liberalisation

1. Stabilised Macroeconomic Environment

Government
- fiscal discipline (5% GDP)
- limit erosion of tax base
- minimised public spending
- governmental falsification of credit and borrowing
  (subsidised loan rates to chosen sectors; differentiated discount rates; direct budgetary subsidies; credit flows; credit ceilings; proliferation of special financial institutions)

Monetary policy
- single objective monetary policy (price stability)
- central bank independence
- financial stability

Taxation
- no inflation tax (price stability)
- ease tax on capital

General
- overcome uncompetitive and oligopolistic market conditions (competition policy, etc.)

2. Real Sector Reform

Dismantle union power
Privatisation of state enterprises
Internal free market
Establish non-traditional export regime
Liberalise imports (remove tariffs)
End pricing cartels

3. Prudential Supervision of Banking and Finance

Sound government finance
Bank solvency
Bad debts resolved
'Upgrade' central bank controls
- political independence
- reserve requirements - - > capital adequacy - -> risk management

Retain variable reserve requirements on foreign borrowing

4. Domestic (Internal) Financial Deregulation

Marketise interest rates (no ceilings) thereafter regulation by competition
Relax and remove credit controls thereafter regulation by competition
Open entry into finance industry (desegregate)
Privatise banks
No cartels (competition)
Remove controls on long and short term capital inflows

5. External Financial Deregulation

Open up to foreign banks
Immediate financial liberalisation for inward long term capital
(= foreign direct investment, portfolio investment, long term bond borrowing)
Immediate financial liberalisation for inward trade-related capital
Free short term capital inflows
Outflows - permanent policy regime (no turning back)
Outflows - demand per fiscal flexibility
No foreign exchange controls
Floating exchange rate

Regulatory Change (and the Recent Evolution of Monetary Policy)

Alongside financial liberalisation, the globalisation of economic life has also prompted regulatory change towards a signalling modality and, within that, an increasing focus on single objective monetary policy. Khoury (1990) states the problem as follows:

> 'The difficulty of conducting monetary policy in a deregulated environment is further compounded by the ability of borrowers to source capital from institutions not subject to the same constraints as banks... The quantum jumps in technology are also troublesome in the conduct of monetary policy. The need for transaction balances is eroding, and with it the demand for monetary base. This reduces the effectiveness of monetary policy that has the control of the growth in the monetary base as one of its cornerstones. As the definition of 'money' becomes more and more malleable, ... the control of monetary aggregates becomes a less desirable policy tool than the control of interest rates...' (186)

His argument is endorsed and completed by Dini (1986)

> 'In principle, wider recourse to variable rate financing and to the new risk management techniques makes the financial system more responsive to the actions of the monetary authorities. Changes in the interest rates under the authorities' control are reflected more rapidly and fully in the whole structure of interest rates... However, some of the effects of financial innovation tend to weaken the interest link between monetary policy and the real economy. The greater flexibility of the new financial instruments has made it possible for an increasing number of non-financial enterprises to engage in liquidity management. Debtors may thus be partially shielded against rising interest rates. Moreover, monetary policies can rely less on locking-in effects: in the past, when interest rates were 'high' and thought likely to remain so only temporarily, the private sector was induced to postpone its borrowing decisions for fear of being locked-in at the higher interest rates. Extensive recourse to floating rates makes the behaviour less common.'

This is an essentially liberal view of things, which is not without critics. In a detailed post-Keynesian critique of recent developments in New Zealand, for example, Dalziel (1998) refers to 'the ongoing debate about whether strict price stability is desirable in a modern market economy.' (209) This view relies, however, on the argument that finance has no reality other than as a subset of the real categories of production and trade, a crucial contrast with the liberal notion that money, because neutral, needs to be left free if it is to exercise its proper function. 'Left free' here means regulated by market forces. Space does not permit full discussion of how this polarity of views might be overcome, but Meerschwam (1991) provides valuable insights in this regard, some of which are taken up later.

An important aspect of this trend is reflected in Mahadeva and Sterne's (2000) study of 94 central banks: '[During the last thirty years,] there has emerged an increasingly strong public constituency for low inflation. The legal objectives of central banks have become increasingly focused on price stability, backed up by an ever-widening use of numerically specified inflation objectives. And policy-makers have sought to anchor long-term inflation expectations by granting many central banks a greater degree of independence.' (xxxix) Moreover, evidence presented by Fry et al. suggests that single objective monetary policy is capable of universal application, although flexibly implemented.

There seems to be a convergence in approach, therefore, although 'the diversity in frameworks reflects the desire among policymakers to react flexibly to a wide variety of shocks, while not undermining the anchor for long-term inflation expectations. To this end, the trend in the 1990s has been for greater

communication within central banks, between central banks and Governments...' (xxxix) 'In the long run, there is only one monetary policy objective, that of maintaining price stability, and very few central banks now have legal or other objectives that pose a potential conflict with this goal.' (136)

Not only is there commonality in method, but, as Brash[60] notes, most countries are now subject to processes of 'deregulation and liberalisation [that have] made interpreting money aggregates extremely difficult.' (186) His view is corroborated by Stals:[61] 'If you try to explain why that link [of money supply] broke down in our situation (in South Africa), it is globalisation: a huge expansion in velocity and turnover in financial markets.' (196)

It is this circumstance that underlies central bank independence and the use of inflation targets, with the latter '[defining] relationships among different institutions and agents in the economy in a way that it is difficult to do using money targets.' (138) That refers to the external setting, but King[62] points out that an inflation target also has an important internal effect: '[It] enables us to separate the discussion of policy objectives from our monthly technical discussion about what [is] needed in order to hit the objective... [Differences of view] works because we do not question each other about the objective... In our case, the Government sets the target, but it could be set in other ways too. It is the separation which I think is crucial, as this permits the internal technical discussions to take place inside the central bank.' (183)

The full extent of changes in regulatory frameworks cannot be reported here, but a useful reflection of them is found in Bario (1997), who describes the gradual shift of emphasis from reserve requirements, to liquidity management, to reversed transactions, to signalling.

The Individual as Regulator

Both financial liberalisation and regulatory change have powerful consequences for the two main foci of this research – the emancipation of the financial markets and the recent evolution of central banking. While the appearance of these phenomena clearly represents a break with past modalities, causing many people to call for a return to external regulation, might it not be that the new developments prefigure the true future and that we would be better advised to identify what might be called missing nuances.

Two related themes are of particular interest in terms of this thesis. The first is the reliance placed on individual actors to behave of their own accord in ways that are non-inflationary and stabilising, obviating the need for central banks or other external agencies to do this for or despite them – so-called removal of the punch bowl by an enlightened prince.

Dow and Rodriguez-Fuentes (1998) argue that '[As] financial and banking systems develop and money supply becomes endogenous, making it difficult for the monetary authorities to control liquidity, the very concept of monetary policy should also change in order to take account of such major changes.' (2) While

[60] Governor of the Reserve Bank of New Zealand.
[61] Governor of central bank of South Africa.

monetary policy is 'exogenous in the sense that its changes are related to decisions taken by central banks, ...at the same time, [it] may be considered as an endogenous variable because once its future lines are known these are then incorporated into the decision-making process of private agents.' (7) '[This] does not necessarily mean that the demand for money is passively accommodated, or that money loses its causal power. But by the same token, if money is generated endogenously, its causal role is suffused within the overall economic process.' (16)

This concept is interesting because it suggests that what we normally leave to the monetary authority to effect on society's behalf can also be engendered directly by ordinary (i.e. private) economic actors. This is of the essence in the auditorial central banking thesis, which asks, in effect, how would the world look if all economic actors generally added a concern for systemicity to the pursuit of their private interests, instead of leaving it to the state or the working of market forces to remedy any effects deemed irresponsible or anti-social.

Such an approach is not unreasonable. Meerschwam (1991) seems to contemplate something of the kind: 'Product innovation requires both issuers and investors to have a carefully defined sense of their needs. And their needs are themselves increasingly complex, since the macroeconomic environment has become more uncertain than ever.' (209) 'Thus players must not only select the markets and products that fit their needs, they must also make a forecast about the macro environment... For this, an appreciation of both market efficiency and channels of transmission is essential... If markets are efficient, then current embedded interest and exchange rate forecasts reflect the market's expectations, and the individual ... has to have good reasons to believe that he can supply superior forecasts.' (213)

Such deference to market forces can carry the nuance that the human being has no part to play in effecting 'right' economic and financial outcomes. But seen as a proxy or shorthand for the anonymous actions of countless human beings, market forces can have a more positive meaning – implying that individuals become their own locus of economic responsibility and requiring agents in the financial services industry to be more specific and transparent about the nature and price of what they contribute. Thus, 'financial vendors have to create strategies that lead to much more explicit value creation (compared to older style intermediation), and it is now the client – rather than the regulator – that must monitor how and where the intermediary value lies.' (219)

Inherent Regulation of Financial Markets

This entails the second theme – a shift from external to internal or inherent forms of regulation. Market regulation can, of course, be described as inherent insofar as it is deemed to have economic objectivity. But the concept used here is the accounting analogy, introduced in Section 1.6, whereby trading, capitalisation, and the on-going evaluation of results (auditing, in other words), are seen analogously to accounting, with its three main elements – income and expenditure statements, the balance sheet, and the closing entries.

[62] Deputy Governor of the Bank of England.

The analogy is deliberate. Not only does it relate to Hanke's argument (Section 1.6 and 4.2), but also to such remarks as those by Mervyn King[63] to the effect that a major distinction needs to be drawn between interbank capital flows and equity. Because equity capital is at risk, it encourages the prior establishment and on-going maintenance of the 'right' fundamentals.

The accounting analogy has another dimension. At the global level, there is no need for reserves or, therefore, organisations to provide them, just as none exist between provinces. There is, therefore, no need for lending at last resort by a central bank – see discussion in Section 4.2.1. If the central bank is denied this role, however, it becomes akin to an auditor, able to point to capital adequacy and risk management effectiveness, but, without funds to change the situation, forced to leave it to the providers of capital to act accordingly, be they investors in the individual sense or at the level of their global agglomeration – the financial markets.

The implied scenario is one in which liquidity is a call on capital and thus a function of the financial markets rather than banks. In such a world, the emphasis of central banking is on the introduction and maintenance of accounting transparency and on sharing or announcing this information on a societal basis. In this way encouragement is given to stable placement of global capital, both short and long term, taking the heat out of 'hot' money.

Mayer (1999) addresses this when suggesting there is a need to de-couple the money supply from the banking system's deposit liabilities, thereby removing incentives to moral hazard consequent on the lender of last resort function of the central bank. Such a decoupling would put the financial markets on their mettle, because it would require greater clarity concerning their liabilities.

A Bank of International Settlements study (1994), for example, noted a link between asset price fluctuation and 'the relaxation of credit constraints in the wake of financial liberalisation'. (10) Citing the findings of Kindleberger (1978) and Minsky (1982) concerning 'the role of credit in fuelling asset price booms', it states that 'together with internally generated cash flow or income, credit [rather than money] represents the main source of funds for the acquisition of goods, services and assets.' (22)

So worded, this gives the impression that the relaxation of credit constraints are a lone factor. Later on, however, the authors state, 'the relaxation of credit constraints has reflected in part the operation of market forces, and, in some countries, a relatively accommodating monetary policy. But a major force has been the deregulation process...' (67) For Khoury,

> '[at] issue here is the definition of what constitutes adequate capital because no capital ratio is adequate of the decisions an the asset side are substandard or if a bank run hits... The other issue is the definition of capital. Today it includes perpetual bonds, perpetual FRNs and perpetual preferred stock. This most liberal of definitions is troubling indeed because it creates an equity 'illusion' and increases the probability that creditors can force banks into liquidation if the banks are unable to meet their debt obligations... What should be considered is some form of netting scheme in which the natural hedges that off-balance sheet items provide for on-balance sheet items is accounted for.' (228-229) (See also Appendix 10: Off Balance Sheet Business.)

[63] At the Times-Dillons, debate 7 December 1999.

Khoury is supported in his view by Goodhart and Delargy (1998) point out that when 'a large proportion of borrowing... is undertaken for the purpose of purchasing assets, notably equities and property... a serious downturn... can turn capital adequacy into insolvency rapidly.' (275) Speaking at a City Business School seminar on 24 February 1999, Goodhart stated that, faced with the growing competition and shrinking margins consequent on the growth of the financial markets, many people and organisations are 'forced to speculate' in order to maintain their income levels.

Although not here understood as a negative phenomenon, speculation often seems to entail practices that are accompanied by inadequate accounting. Khoury (1990), for example, draws attention to off-balance sheet activities, by means of which one is able 'to earn income without having to source funds or set aside capital or reserves.' (195) Care should be taken to avoid false attribution, however. Jonung (1993), for example, and others do not find to this effect in their studies on transition. The point is not to burden asset finance with undue responsibility. Indeed, Capie and Wood (1997) express the view that 'in general, the behaviour of asset prices both in boom and in slump [seems] to be a consequence of prior policy (or policy regime) changes. These changes are in turn sufficient by themselves to explain the behaviour of the economy; asset prices do not need to be invoked as an additional explanatory variable.' (15)

3.2 Concepts of Monetary Authority

Having given thought to key contextual themes with which the ACB thesis is concerned, this section turns its attention to central banking as such, or, better put, monetary authorities, since the meanings and connotations of central banking are too specific for the term to serve generically.

The section has four main parts, beginning with a review of the evolution of central banking as generally understood, ranging from the central bank as a department of government (dependent central banking) to the central bank as an agent of government (central bank independence). It then considers the question of other types of monetary authority and the monetary reformist critique, closing with a rehearsal of the free banking debate.

3.2.1 The Evolution of Central Banking

This discussion hugs closely the contours of the works of Goodhart (1988), Capie, Goodhart and Schnadt (1994) and Stanley Fischer (1994). This is not intended to short cut the reading of wider literature, but reflects the definitive and detailed nature of the works cited, which combine both a review of the literature with a powerful historical synthesis. That said, many of the views developed in this section pre-date acquaintance with the works of these authors and are in that sense resonant with, rather than derived from, their work.

The evolution of central banking is a huge topic, needless to say, and this treatment of it cannot but be minimal, rehearsing only the main outlines of the field. To this end, it reiterates Goodhart's 'classic' interpretation,[64] which clearly also provides the keel for the Capie, Goodhart and Schnadt paper.

Goodhart's view is clear, beginning with his endorsement of Klein's (1974) observation that 'few areas of economic activity can claim as long and unanimous a record of agreement on the appropriateness of government intervention as the supply of money.' (423) It is not apologism, therefore, but a considered view that leads Goodhart to point out that

> 'in most cases of central banks founded in the nineteenth century the full ramifications of their role as bankers' bank were only dimly perceived at the time of their founding; these functions developed naturally from the context of relationships within the system... It was the responsibility that this position was found to entail, in the process of historical experience, that led central banks to develop their particular art of monetary management [and] to represent the ultimate source of liquidity and support to the individual commercial banks...' (5-7)
>
> '...large, central commercial banks [have] provided quasi-central bank functions [but] because of conflicts of interest, these functions were not, and cannot be, adequately provided by competing institutions... [I]t was the metamorphosis from their involvement in commercial banking, as a competitive, profit-maximising bank among many, to a non-competitive non-profit maximising role that marked the true emergence and development of proper central banking... This metamorphosis

[64] Charles Goodhart, The Evolution of Central Banks, MIT Press, 1988.

occurred naturally, but with considerable difficulty, in England, the difficulty arising in part from the existence of property rights in the profits of the Bank, and in part from concern about the moral hazards of consciously adopting a regulatory role.' (8-9) The Bank also evolved its central bank role 'in the face of an uncomprehending, if not antipathetic, legal code in the form of the Bank of England Act of 1844... [Nevertheless, this] model was widely seen as so attractive that it was copied in virtually all other major countries. The process of transition, e.g., from profit maximising to non-profit-maximising, is so hard to achieve that most of these other central banks were established by governmental legislation.' (104)

Much of Goodhart's exposition is interwoven with stringent criticism of free banking, see Section 3.2.4. He is adamant that central banking is best done by a public body, illustrated by the example of a technical matter of a public good nature that is of interest to commercial banks themselves.

> 'Even where there is no impetus to centralisation arising from the needs of the state, the existence within the banking system of a part that is made up of small, largely independent units, will often lead these smaller units, often savings banks, to seek certain quasi-central banking functions within the system... [There] is a natural market process whereby banks, at least in any unit banking system, will tend to place deposits with another large, centralised, conservatively managed commercial bank... This concentration of bank deposits with some central commercial bank(s), however, leads to certain problems becoming apparent. In particular, the extent of centralisation of reserves, and the provision of services, including insurance services, that will be utilised through interbank deposits between correspondent banks and a central commercial bank will be restricted through perceived conflicts of interest, [the range of which] is considerable.' (37)

> In Goodhart's view, there are two reasons why a public body does central banking best. Firstly, it enables the profit maximising motive to remain with the commercial banks, while disappearing at the centre of the system. Secondly, because of the support it receives in the public mind and because of the government's power to tax, only a public body can provide the liquidity that the system as a whole needs. Goodhart arrives at this view by way of his particular interpretation of the history of the Bank of England. 'In the first half of the nineteenth century, the key feature of a central bank was seen to reside in its relationship with government and its privileged position as (monopolistic) note issuer: but in its banking function, it was often widely considered that it was, and should act as, just one competitive bank among many. This concept of a central bank's role was codified in the 1844 Bank of England Act. But this was ... an incorrect, indeed faulty, concept, and, I would argue, true central banking did not develop until the need for the central banks to be non-competitive had become realised and established.' (45)

In support of his view, Goodhart, taking up the free banking suggestion that banks could form some kind of insurance scheme to provide their back-up in times of crisis, considers what would happen if the central bank were to be abolished, or severely restricted in its operations by rules. 'How would its support and insurance functions, to contain contagious crises, be undertaken?' (7) He straightway points out that

> 'there is no objective, and widely agreed, means of assessing risk, [without which] any method of apportioning the costs, setting premiums for insurance, is not only bound to be contentious, but will cause dissension and disagreement among participating banks. Moreover, if the insurance agency is to limit moral hazard, without being able to relate the premiums objectively to the risk, it will want to be able to conduct supervision and impose regulations on bank behaviour of a kind exactly similar to those already being carried out by a central bank.' (79)

It would be no better 'if the insurance cover to be provided by, say, the private sector were 100% complete; the moral hazard would then be even greater than under current arrangements, as the extent of control and regulation might well have to be even greater than at present... In order to deal with the systemic problem, it would be necessary for some public institution to stand behind any private insurance system, and to be seen to be ready, if necessary, to inject additional money into it.' (80-81) In his support

Goodhart enlists the observation of Diamond and Dybvig (1983) that 'because insurance companies do not have the power of taxation, they must hold reserves to make their promise credible. This illustrates a reason why the government may have a natural advantage in providing deposit insurance.' (416) 'The end result, therefore, of an attempt to provide such general deposit insurance would probably be to establish an institution whose role and function would not essentially differ greatly from the supervisory departments in existing central banks...' (81)

That said, Goodhart has some sympathy with Tobin's (1985) concern that 'our monetary and banking institutions have evolved in such a way that entangles competition among financial intermediary firms with the provision of transactions media,' thus putting at risk the monetary system, whose successful functioning is an essential public good. And yet Goodhart believes that 'the concept of a 100% segregated reserve against checkable deposits would ... reverse the evolution of banking,... [because the] segregation and hypothecation of certain safe assets to checkable ... removes the profitability of banking along with its risks. Only in the case of non-profit maximising banks, such as the Bank of England,... would such segregation be acceptable and not subject to avoidance and evasion.' (88)

Goodhart has a suggestion of his own to make:

> 'Both the likelihood of a run on an individual bank and of systemic dangers to the monetary system arising from a contagion of fear would be greatly reduced if payment services were provided by mutual collective-investment intermediaries rather than by banks... Such a system would seem inherently safer and more stable than the present system, in which such services are provided to a subset of bank depositors... So long as such intermediaries abide by their deeds of establishment and restrict their investments to marketable securities of a certain class, with the value of the units adjusted continuously in line, solvency should never be in doubt and would not be affected by the additional offer of payment services.... Moreover, [in such a world] why should the authorities pay any particular attention to the quantity of money itself, especially since its nominal value would shift automatically with asset market prices...? In these circumstances, the definition of money would either have to contract to become synonymous with the dominant, 'outside' base money, assuming that such money still continues to exist, or become an amorphous concept almost devoid of meaning.' (92-94)

Goodhart's suggestion runs alongside similar ideas from Tobin, Friedman and Kaufman, all of which 'have at their core the requirement that financial intermediaries, providing payment services, should only hold marketable assets.' (96) This approach implies that 'it is the fact that banks' portfolios largely consist of non-marketable, or at least unmarketed, assets that is largely responsible for the particular problems of ensuring stability within the banking system.' (96) To this Goodhart replies that he believes

> 'that cessation of payment services would make little difference to banks' riskiness or to the real basis of central bank concern with the banking system. ...Recent occasions of runs on banks have not involved an attempt by the public to move out of bank deposits into cash but have merely produced a flight of depositors from banks seen as excessively dangerous to some alternative placement. ...even were banking to be entirely divorced from the provision of payment services, such flows between banks could be extremely damaging for the economy...' (96-97)

He points out that 'public information on the economic condition and prospect of such borrowers is so limited and expensive that the alternative of issuing marketable securities is either non-existent or unattractive.' (97) The matter has to rest with competent institutions, therefore. Indeed, 'on a number of

occasions, financial institutions have been effectively insolvent but, so long as everyone steadfastly averted their gaze, a way through and back to solvency was achieved.' (100)

For Goodhart, fund flows between banks in crisis times can be better handled - whether by prevention or recycling - by central banks than by commercial banks, if only because a commercial scheme would give rise to the need for a non-private arrangement anyway. 'The nature of banking risks makes the attempt to use private insurance to protect depositors impracticable. Moreover, the avoidance of moral hazard requires a degree of regulation and interventionist control over the freedom of bankers to choose their preferred portfolios that would seem to require public sector backing to obtain compliance.' (104)

For Goodhart, then, the argument for central banking is conclusive and exhaustive: it is only right and proper for the monetary authority to be a public body, meaning that it should be an arm of government. This argument meets with a wide consensus, and even underpins the idea of central bank independence, considered later. It is important to note, however, that in reality central bank independence is a concept whereby a division of labour is effected between the government and the central bank in principal/agent terms. Populist understanding of the term notwithstanding, operational independence is, therefore, a version of dependent central banking, albeit market-oriented and in stark contrast to overtly statist concepts of dependent central banking such as monetary reformism, see Section 3.2.3.

The Self-Image of Central Bankers

Much of the foregoing is reflected, predictably enough, in the views of central bankers themselves. Jelle Zijlstra (1987), simultaneously president of both the Bank of the Netherlands and the BIS from 1967 to 1981, once put it this way: 'By trial and error we will have to find our route. Where should it lead? To renewed stability of exchange rates and to the breaking of the backbone of inflation also through an appropriate monetary policy... [thereby to fulfil] our primary task - to be the guardians of the integrity of money.' (182)

Given this image of their task, many central bankers speak of the importance of the governor's integrity. Louis Rasminsky, Governor of the Bank of Canada from 1961 to 1973, once said, 'there is no substitute for the exercise of judgement,' (77) and he described the relationship between central banking and government in the following way: 'In the ordinary course of events the central bank should be responsible for monetary policy, but the government should in the final analysis have the power...to issue a formal directive to the bank. The bank would then have to carry this out, but the governor would not be relieved of his personal responsibility and if he felt that he was being directed to carry out a policy which was against the public interest, he would presumably [resign]...' (78) He went on to say that 'the time horizon of the central bank is in the nature of things longer than that of the government; it is often alone in having an abiding concern with the value of money. The influence of the bank - and the consequence of a governor's resignation...flow from the respect the community develops for the objectivity of the bank's views... in the light of experience.' (78)

These are, of course, the comments of old hands speaking back in the 1960s, but they were reiterated unchanged and underscored in 1987 because of a perceived need to address the rising influence of the financial markets. In that sense, they can be seen, not as slavish restatements of die-hard central banking doctrines or as the comfortable expressions of wisdom when in retirement, but as an attempt to steady the rudder and ready the sails before the onset of a powerful storm, combined with the possibility of entering upon uncharted waters. Thus, Antonio Fazio, when Deputy Director General of the Bank of Italy, spoke with classic central bank caution when he said that 'the development of unrestricted international banking activity and the reciprocal opening of financial systems, in a context of money circulation based purely on fiduciary standards, pose new problems for national central banks and monetary authorities..., [to which he added the rider] in a regime of fiduciary money, the sound operation of the fiscal authority is a necessary condition for guaranteeing the value of the currency.' (138)

Such views have not dated. In 1994, when responding to a paper by Capie, Goodhart, and Schnadt concerning the rules versus discretion debate, the chairman of the US Federal Reserve Board, Alan Greenspan, said, 'I wish there were a simple way to remove fallible human judgement from central bank policy making, as policy by 'rule' would endeavour to do... Regrettably, there is no available option of that nature in the world that confronts us on a day-to-day basis.'[65]

Such views suggest that central banking has its own locus and that the real relationship between central banking and government is one of shared societal responsibility. The government speaks for the electorate (within the concept of bi-party democracy), but the central bank speaks for money. This is not so very different from the following passage, echoing Thornton, but from Bagehot:

> 'It is a great defect of a purely metallic circulation that the quantity of it cannot be readily suited to any sudden demand; it takes time to get new supplies of gold and silver, and, in the meantime, a temporary rise in the value of bullion takes place. Now as paper money can be supplied in unlimited quantities, however sudden the demand may be, it does not appear to us that there is any objection on principle of sudden issues of paper money to meet sudden and large extensions of demand. It gives to a purely metallic circulation that greater constancy of purchasing power possessed by articles whose quantity can be quickly suited to demand. It will be evident from what we have said before that this power of issuing notes is one excessively liable to abuse because...it may depreciate the currency; and on that account such a power ought only to be lodged in the hands of government...[and] should only be used in rare and exceptional circumstances.'[66]

The following list of central bank functions summarises the above remarks. The first five are from Collyns (1991:29), the remainder from Capie, Goodhart and Schnadt (1994:1-3):

- Currency issue and maintenance of reserves
- Banker to government
- Banker to banks
- Regulation of domestic financial institutions
- Maintenance of the internal and external value of the currency
- By 'uncodified concordat', to provide the stroke oar for the banking system

[65] Quoted in *The Future of Central Banking*. pp. 244 & 245.
[66] Bagehot in St. John-Stevas (1978) vol. 9. p. 267.

- Monopoly of note issue
- Lender of last resort

If, in line with the ACB concept, the central bank is divested of supervisory, banker to government, and lender of last resort roles, the list reduces to five:

- Maintenance of the internal and external value of the currency
- Conduct of credit and monetary policy
- Currency issue and maintenance of reserves
- By 'uncodified concordat', to provide the stroke oar for the banking system
- Monopoly of note issue.

This (deliberately reordered) sequence mirrors what Capie and his colleagues describe as the 'common standardised role for the central bank' that had come about by 1913. It might be opined that things have moved on since then and that central banks have additional purposes nowadays. But it could be rejoined that few if any of these purposes have an economic character and most have to do with central banks as instruments of government, the very circumstance that this study sees as problematical and which its thesis endeavours to go beyond. Although the last of them may be overtaken by events in the field of financial technology (see discussion in Section 3.1.7), all are clearly connected to the idea of 'guardianship of the integrity of money' - the first being the overriding purpose, the others means to that end.

The question is how does one meet this challenge? How does the central banker maintain the integrity of money when credit creation passes out of the banking system into the financial markets generally, threatening the soundness of the currency because the latter's internal value, even if safeguarded by domestic price stability, is under the constant influence of unpredictable exchange rates that can no longer be reliably determined by dictate or decree?

If central banks are to continue in their task as the guardians of sound money, therefore, what is the appropriate context for this role, and what form should it have?

Central Bank Independence

Increasingly, the consensus answer to this question is central bank independence (operational independence), a concise account of which is provided by Fischer (1994) in his essay on 'Modern Central Banking'. In its introduction, Fischer remarks that in the 19th century central bank policy was concerned primarily with financial stability and defence of the external value of the currency, the exchange rate. After Bretton Woods, 'the focus of monetary policy shifted to the management of the domestic value of the currency.' (262) Although central banks vary widely in their functions, depending on the culture and history of the country concerned, for Fischer the essential role of central banking is that of monetary policy – 'the supply of credit and money, and thus of money market rates.' (264) Closely connected to

this is the lender of last resort function and exchange rate and foreign reserves management, although these can be shared with the Treasury. To fulfil this function, there is a growing trend to focus on price stability. Although many central banks place this alongside other, even conflicting, functions, such as output, few leave it out altogether. Indeed, it is worth considering whether any other function could operate on its own in the way that the pursuit of price stability conceivably can.

The argument in favour of pursuing price stability as the primary if not the only focus of the central bank – single objective monetary policy – is accompanied by that for central bank independence, a point to which Fischer comes after a detailed consideration of the undesirability of inflation and the inflationary bias of much government-made monetary policy. Much of his discussion is of a technical and economic nature, which, in this context, is of less importance than the institutional considerations which flow from it. Just as single objective monetary policy leads to central bank independence, so central bank independence raises the 'rule or discretion' question. Fischer comes down on the side of a mixture. 'There cannot be a case now for dealing with the problem of dynamic consistency by putting in place any rule that prescribes by a fixed formula the growth rate of any monetary aggregate or the behaviour of interest rates. Rather the monetary authorities need to be given some flexibility to decide on day to day monetary policy. In this context, rules ...[67] can provide a useful benchmark against which to judge policy.' (289)

He goes on to discuss Rogoff (1985) and Lohmann's (1992) work, which treats the relationship between the central bank and the government, seeking to balance the central banker's aversion to inflation with governments' seeming addiction to it. Identifying the 'appropriate' relationship between them is also the reason for the principal/agent discussion: 'In this model, a principal (society) with well-defined goals has to design a contract that will motivate an agent (the central bank) to act in the principal's interests. In general, the agent has access to some information that the principal does not.' (291)

Fischer then considers goal and/or instrument independence, which is a variant on the division of labour problem discussed earlier. Although there are examples, such as the Bank of Italy, of goal *and* instrument independence, currently there would seem to be a consensus, at least in terms of practical policy, to retain goal dependence, while granting instrument independence, with the governor of the central bank being the bearer of prime responsibility, even with his pay performance-related. A discussion of the effect of central bank independence on inflation then ensues, with Fischer generally agreeing that 'on average, economic performance is better in countries with more independent central banks,' (300) but cautioning that recognition of the 'credibility' task in society as a whole cannot yet be counted on, so that 'educating people about [its] costs ... is the best way of reducing inflation.' (298)

From the point of view of auditorial central banking, the most interesting part of Fischer's essay is the concluding section in which he considers the charter of a modern central bank. He lays the foundation by citing seven lessons to be drawn from experience to date:

[67] Omitted 'of the McCallum type'.

1. A clear mandate including price stability, not necessarily on its own.[68]

2. Publicly announced goals.

3. Double accountability – to meet its goals, and to explain and justify its policies and performance.

4. Governmental override provisions (albeit at a cost to government).

5. Central bank to set interest rates.

6. Central bank withdrawal from financing government deficit and managing public debt.

7. Impossibility of separating interest and exchange rates when the currency is floating.

Fischer further recommends representation on the central bank board along the lines of the Banque de France's 'persons of recognised standing and professional experience in monetary, financial and economic matters' (303) - wording that is very reminiscent of Churchill's 1930 suggestion of 'persons possessing special qualifications in economic matters...of high technical and business qualifications [and] high expert authority'[69] - while his advocacy of override provisions is intended to balance out the power of the central bank and to provide an incentive to proper (that is inflation balancing, not deflationary) conduct.

The last remarks concern what in this study is called the structural aspect of central banking - how the central bank is situated constitutionally and how it is organised and operated. There is, however, an important feature of our times that, while not structural in an outer sense, exerts a powerful influence on the way central banks function. Fischer points out, for example, that 'monetary and exchange rate policies cannot be independent. Under floating rates, monetary policy affects the exchange rate. There is no other short-run policy that can affect the exchange rate. Thus the government cannot have control over exchange rate policy while the central bank has control over monetary policy. The government should have the authority to choose the exchange rate regime. If it chooses a fixed exchange rate regime, it has then essentially – though not completely – determined monetary policy.' (304)

In other words, central bank independence carefully stops at the point of operational independence only, leaving the ultimate responsibility for the exchange rate to the government. In relying on universally floating exchange rates, therefore, the ACB concept ineluctably grants goal independence to the central bank, but does so at the same time as it makes the central bank accountable to parliament. This needs to be said in order to make clear that under auditorial central banking, goal independence does *not* amount to a license to unelected people to run the economy as they choose. On the contrary, as with central bank independence, it places the responsibility for this task in the hands of experts, but makes them accountable to parliament instead of government - an arrangement that is arguably truer to today's facts

[68] He refers to the 'ideal' of the Netherlands which gives the central bank the general task of 'promoting the nation's prosperity and welfare', though one could well ask for clarification as to what that means exactly. Achieving the neutrality of price stability could be arguably synonymous with such an aim, in which case the qualification is redundant.
[69] See Appendix 5: Churchill's Economic Parliament.

than the pretence that governments can continue to challenge markets with fiat-based exchange rate strategies.

Reservations

Central bank independence does not meet with universal approval, however, and the prospect of a retrenchment into dependent central banking has appeared in both Germany and France, with France in particular experiencing a growing pressure to review the appropriateness of the neo-liberal assumptions underlying central bank independence.[70] A rallying cry for this approach is sounded by Burkitt and Baimbridge (1994), who claim that central bank independence 'brings about an institutional reallocation of state power in [finance's] favour.' (2)

They are not alone in questioning the merit of single objective monetary policy. Hopkin and Wass (1993) argue that the UK's poor performance in recent times is a consequence of many other 'real' factors – loss of market share, low labour productivity, high import penetration, poor industrial relations, short-termist management, etc. Posen (1993) challenges the no trade-off view by pointing out that since 1960 the US, Germany and Switzerland have all suffered protracted downturns when deflationary policies have been pursued. Roger Berry (1995), a Labour MP, is unequivocal. The pro-independence lobby has 'an agenda [that] is firmly monetarist, with the overriding objective of price stability. In truth, there is no evidence that zero or low rates of inflation generate a higher rate of economic growth, that independent central banks can guarantee low inflation, or that the costs of inflation are high compared with the costs of unemployment.' (3)

Such views reflect a so-called Keynesian, or in the UK context, Old Labour approach to central banking. Given the 1998 Bank of England Act (discussed in detail in Section 5.4.4), whether they have historical force left in them remains to be seen. Even so, for such reasons central bank independence can be seen as an uncertain image because, while it has been buoyed along on a deep historical wave of ascendant neo-liberal economic philosophy, befriended by monetarist or at least market-friendly governments, and targeted on the seemingly cross-party wish for low inflation, it is by no means clear what would happen were this wave to go out from underneath central bank independence. What would happen, for example, if inflation did not return? Or if concerted political movements sought to undo central bank independence? Or, worse yet, if neo-liberal theory, having emptied the stage of all others, were in the end found wanting?

Given the importance of central banks in modern economic life, it would be understandable to regard them as immutable, permanent institutions. Their evolution to date, however, shows them to be historically quite recent and subject to continual change. Events since 1973 have added a new dimension

[70] *Le Monde de l'Economie* (31 October, 28 November, 2000), reporting on the protests by students and professors at the Americanisation of economics, reports that the Education Minister, Jack Lang, has asked Jean-Paul Fitoussi, president of the French Observatory of Economic Conjunctures (OCFE), to undertake 'a mission of enquiry and reflection' on the teaching of economics.

with central banks now dwarfed by the might of global capital flows. Indeed, some even expect the banks' demise.

For Hayek, the point is axiomatic, of course: '...the obvious corollary that the abolition of the government monopoly of the issue of money should involve also the disappearance of central banks as we know them, both because one might conceive of some private bank assuming the function of a central bank and because it might be thought that, even without a government monopoly of issue, some of the classic functions of central banks, such as that of acting as 'lender of last resort' or of 'holder of the ultimate reserve', might still be required.' (105)

The Financial Times commentator, Peter Martin (1998), describes how the traditional essential role of banking – maturity transformation – is being displaced by securitisation and made unnecessary and anachronistic by the increasing power and sophistication of information technology and financial innovation. It is only 'regulatory favouritism' that maintains a lifeline for banking in the form of the payments system. '[Otherwise], central bankers and banking supervisors should be actively preparing for their own demise.' Williamson and Mahar (1998) emphasise this development: '...it happens that the art of supervision now seems to be in the middle of its biggest upheaval for many years. This circumstance results from the widespread involvement of banks in the business of derivatives, which means that a bank's risk exposure can vary hour by hour as a result of changes in both its market positions and the market prices of the assets in which it trades. No snapshot of its balance sheet at a moment in time, such as supervisors have traditionally examined, can hope to provide an adequate picture of its risk exposure.' (30) Samuel Brittan (1999) reinforces the theme: '...the combined results of all these developments could well be to reduce, perhaps to the point of elimination, the need for bank reserves and even the need for banks and cash altogether.'

Whether central banks disappear remains to be seen, of course, but in any event the prospect is not dwelt upon here for obvious reasons. There will probably be a reduction in their number or at least in their status, as some become actual or quasi currency boards and others mere satellites of a regional central bank, as in the case of the ESCB.

A key question accompanying this thesis is whether central banking can rest at central bank independence or whether it is but a staging point. Its introduction not only usually requires significant legislation, witness the Bank of England Act 1998, but also its effects are wide-ranging (as is the intention). Understood as an essentially liberal concept, it is one thing to introduce it into statist contexts, but the more extensive its application and, very importantly, the greater its cross-party and general acceptance by the electorate, the more it can be expected to give rise to similar conditions and monetary policy techniques, especially price stability. This raises the question: When price stability becomes universalised, will central bank independence not need to evolve further? If so, in what direction?

Later in the dissertation (Section 3.3), the ACB concept is considered as the next step in this process, but before that thought is given to the three main critiques of modern central banking – alternative monetary authorities, monetary reformism, and free banking.

3.2.2 Alternative Monetary Authorities

Schuler (1996) advances the view that central banks are unnecessary. Even though the context and focus of his work is the so-called 'developing world', it usefully highlights key issues concerning central banking generally. Schuler's concern is how to overcome central bank capture by governments and the problems this has created. Combining cogency of expression with 'tour de force' research, his proposition is that every developing country should enjoy a 'high quality currency', with quality currency (or monetary performance) defined as 'the extent to which the currency fulfils the textbook functions of money, as a medium of exchange, unit of account, and store of value.' (10) He is then careful to add that, while 'a high-quality currency may foster economic growth,... growth itself is not a measure of currency quality, [and that] in assessing currency quality, to avoid a misleading impression, it is necessary to consider multiple measures and to take a long-term perspective.' (25) The main measures he identifies are: inflation, high inflation, convertibility, exchange rate to US dollar, multiple exchange rates, devaluations, and currency confiscations.

Schuler cites seven alternatives to central banks for achieving and maintaining currency quality:

1. Currency boards through their provision of full convertibility into an anchor currency at a fixed exchange rate.

2. Monetary institutes through their use of a rigid exchange rate link with a foreign anchor currency but with some discretion in monetary policy.

3. Private commercial banks with monopoly of note issue and an expectation to maintain a fixed exchange rate with an anchor currency. *Usually found in former colonies. Now extinct.*

4. The 'free banking' system of competitive issue of notes and deposits, with low legal barriers to entry and few constraints on bank operations. Here there is no monetary authority but there is typically the constraint of a fixed exchange rate.

5. 'Dollarisation' - meaning no domestic issue, but the use of a foreign currency instead.

6. The 'free-issue' system with a floating exchange rate and no monetary authority. *Historically rare, now extinct. Unstable, witness Hong Kong 1972-83.*

7. He also mentions direct government issue, but recognises that this is almost equivalent to dependent central banking.

Comparing these alternatives to central banks, Schuler states that 'discretionary control is what distinguishes central banking from [most of] the other monetary systems... [referring thereby to] control over the monetary base and the exchange rate, not to freedom from political influence...' (18) His central argument is that developing countries have been adversely affected by three phenomena: the use of central banks by governments to fund state deficits, thus generating inflation, the collapse of Bretton Woods, and the floating of currencies.

Because these problems are not unique to developing countries, it seems valid to generalise Schuler's point. Moreover, although all three are related, they are not all of the same order. The first concerns a predilection to which all governments would seem to be prone, it being 'difficult, perhaps impossible, to find central banks that successfully resisted all pressure from their governments to finance deficits.' (4) The collapse of Bretton Woods and the rise of floating exchange rate regimes, on the other hand, have to do with coming away from Keynesian economic policies. Of the collapse of Bretton Woods, Schuler says that it 'removed an external discipline against inflation and led to the current, historically unprecedented period, in which no country had a gold standard or is likely to return to one... Since 1973 the currencies of the major developed countries have floated against one another... The result has been high inflation.' (13)

To counter such developments, Schuler argues that an equivalent to the gold standard is required and points to the two examples of Argentina and Estonia, who both brought their inflation under control by tying their currencies to an anchor currency. His preference for non-central bank approaches thus stems from his approval of the reliance they place on the external discipline of fixed exchange rates, which are 'effective against inflation [because] the transparency of fixed rates and the strictness of monetary rules to protect fixed rates [are] mutually reinforcing... Fixed exchange rates put [central governments] in a position like that of subnational governments [which] generally have less frequent and persistent deficits than national governments because they cannot print money to finance deficits.' (48)

It is evident from Schuler's own formulation, however, that some of the alternatives have not worked (see the italicised comments in his list of seven alternatives), and that all of them are reliant on a fixed exchange rate and the use of an anchor currency. While his argument therefore carries weight as advice to developing countries wishing to stabilise their economies in current circumstances, it does not serve as an argument against central banking absolutely. His case depends on the ability of one national currency to serve as an anchor for another, and in the two examples he highlights the linkage is to two very definite central banks - the Bundesbank and the Federal Reserve. The German mark may have stabilised the Estonian kroon and the US dollar the Argentine peso, but what would happen were the anchors to come loose, were, that is, no national currency able to act as the anchor for another? The changes in Germany's situation since reunification and its recent entry into 'euroland' qualify its 'hard' reputation built up when the Deutschmark referred to West Germany only. It is also by no means certain that the US dollar can be relied upon to be the world's reserve currency forever, as both Volcker and Gros point out (Section 5.3.3). Conversely, what if a country anchors itself at the 'wrong' rate? To what form of monetary authority would it revert?

The underlying trend seems to be towards some universal currency as a replacement for gold, even if the path to this end probably passes through optimal currency areas, competing monetary unions, and the like. The idea of anchor currencies and thus of the possibility of doing without central banks contradicts this evolution because it relies on there being somewhere in the world at least one national currency that can perform the anchor role. The Schuler view is tantamount to making countries without central banks monetary 'colonies' of those with them. This in no way contradicts his complaint that when central banks are subject to government capture they tend to be inflationary, but those who rely on someone else's monetary policy do so in order to get the conditions that obtain in the 'anchor' economy, not to challenge its monetary construct.

If there is to be an alternative to central banking on a general basis, the real question is not how can central banks be obviated in the *developing* world, but what is their future in the *developed* world? Schuler was not, of course, addressing this issue, but his look at developing countries is instructive, acting as a kind of visit to a world which might be able to do without central banks, but serving to illustrate that such a world at the moment does not exist. In contrast, the ACB argument would be that central banks, far from disappearing, need to go 'one level up' and that the currencies of the world need to make the step into partnered or reciprocal relationship. When no one national currency can serve as the anchor or hegemon, the only way forward would seem to be for *all* currencies to float, for *all* monetary policy to become focused (although not necessarily exclusively) on price stability, and for *all* central banks to become 'auditorial', for only in such a context would the external values of currencies, the exchange rates, be reciprocally determined.

Though brief, this review of alternative forms of monetary authority leads to a simple conclusion in terms of auditorial central banking. The viability of all alternative models identified by Schuler relies on the monetary policy and central bank of the anchor or parent economy and often asymmetrically in cost-benefit terms.[71] Insofar as both monetary policy and central banking are the subjects of much debate, the success and relevance of other monetary authorities are clearly qualified and restricted to those countries whose economies and currencies are not yet able to stand on their own feet. Were they to reach a stage where they could do so, the question would return as to what type of monetary policy and what form of central bank they would adopt. Thus the issues concerning central banking are in no way settled by experiences in the 'developing' world. The question remains not whether central banks should exist, but what is the next stage of their evolution?

3.2.3 Monetary Reformism

A second critique of modern central banking comes from the 'monetary reform' movement. By and large unremarked in the literature and readily dismissed as a 'crank' idea, this movement has a long history and is currently achieving a wide following among those who, whatever one thinks of their arguments, are vociferous in their complaints about global finance and the capture, as they see it, of central banks by

[71] The US, for example, does not share seignorage with Argentina.

financial interests. It would be convenient, but hardly catholic, to leave this movement out of account. More crucially perhaps, it is important to consider its monetary ideas in order to assess what consequences, if any, would ensue for monetary stability were the movement to achieve any substantial political presence.

The movement entails a particular set of critiques of the modern financial system, which have long been bundled by their proponents under the heading of 'monetary reform'. This is a somewhat generic term, however, used also by other schools of thought. Keynes's *Tract on Monetary Reform* is an obvious case in point, but Dowd (1992) also uses the term, although what he, a free banker, has in mind is not what those in the monetary reformist movement are thinking about. In the interests of clarity, therefore, the monetary reform movement is here referred to as the monetary reform*ist* movement.

A Brief Overview

Monetary reformism reaches back over 100 years and makes strong reference to British experience because for much of its genesis the Bank of England was the main model. Its own literature reveals a diversity of view, less so in its analysis of the financial system than in its suggested remedies. Such diversity belongs to free debate, of course, but it also suggests that the analysis is not accurate.

Although monetary reformism has antecedents earlier in the 19th century, clear formulation begins in the 1890s with German businessman Silvio Gesell's *Monetary Reform, the Bridge to a Social State* (1891) and the views, dating from 1893, of Arthur Kitson, a famous inventor turned industrialist who gave evidence at the Cunliffe Currency Committee. Its main emergence came during the interwar period with the gold standard, hyperinflation, and the Great Depression - seen by C H Douglas, founder of the Social Credit Movement, for example, as having a financial cause – providing powerful spurs.

In 1936 the Economic Reform Club was founded, providing a major focus for monetary reformism and acting as a direct pressure group on Government and the financial community. This work subsequently came under the heading of the Economic Research Council which still holds regular dinner meetings, publishes occasional papers and a quarterly review, *Britain and Overseas*, and conducts dialogues with prime ministers. Its membership includes bankers, industrialists and economists, many of them well known.

In more recent times the rise of the green movement and alternative economics groups such as the Schumacher Society, the Green Party, the New Economics Foundation, and the Christian Council for Monetary Justice,[72] has added a new dimension to this work. The Green Party has a regular newsletter, *Sustainable Economics*, which also gives much 'air time' to Canada's Committee on Monetary and Economic Reform (COMER). There are also other groupings in the UK and similar activities in Australia and New Zealand, while the Gesellian approach is also very present in Germany and Switzerland through the work of Dieter Suhr, Joseph Huber, and others.

[72] See Appendix 7: Monetary Justice.

To call these various groups a movement is perhaps an overstatement, since they are somewhat disparate and often differ in their prescriptions. 'Movement' also suggests a common ideology, although this is by no means the case. The ERC, for example, is unequivocally capitalist and is concerned with the ineffectiveness, as they see it, of the present monetary system. Others, especially the many 'alternative' groupings, regard statist monetary management as the necessary and appropriate balance to an otherwise market economy. Yet others, and not a few, are avowedly anti-capitalist.

Seven Propositions

Although it is not easy to distil a common economic philosophy out of the movement's disparate membership and diverse agendas, seven main propositions are evident:

1. Money should have constant value over a very long period of time.
2. Credit should be constrained by cash.
3. The monetary system is the reverse of what it should be.
4. Fractional reserve lending is fraudulent.
5. Money issue should be the prerogative of the state.
6. Profits on issue should accrue to the community.
7. Credit per se should not bear interest and should be issued debt-free.

These propositions are dramatic indeed and are born of a stinging indictment of today's monetary system. The world is, of course, beset by enormous problems, but is it clear thinking or moral indignation that underlies the monetary reformism case? In assessing the monetary reformist literature, it is difficult to maintain an enquiring stance because it is so often predicated on or shot through with judgmental language. 'Dishonest', 'fraud', 'deceit', 'counterfeit', even 'scam' – are all terms frequently used: witness Tomlinson's (1993) announcement that he 'will expose the mechanics of the banking system: how they began as a fraud; how the dishonest money produced by this fraud-based mechanism steals purchasing power from prudent savers and those on fixed incomes and transfers it to borrowers; how this fraudulent practice was legitimised and became the principal mechanism by which our money is debased.' (8) Or Rowbotham's (1997) statement that its historical origins show 'today's financial system ... to be one of pure deceit and counterfeiting.' (178)

The movement's technical analysis also seems uncertain. Holloway[73] (1986) is typical when he describes credit being created 'out of nothing', so that it amounts to a 'one-way traffic of money to the banks' (77) that exerts a permanently destabilising influence on the real economy. Or Tomlinson's[74] statement that central banks were 'established as lenders of last resort to bail out individual banks that had reached their point of imprudence.' (49)

[73] Honorary Secretary of the Economic Research Council for over forty years.
[74] A Canadian, who was for many years a stockbroker with the US firm Thomson & McKinnon..

Furthermore, monetary reformism has a clear, if debatable, view on money issue. Frequent reference is made to an article that appeared that in the *Westminster Review* in the 1850s concerning the 1844 Act, in which the author claimed that the 'ideal system of currency which Sir Robert Peel must have had in his heart [is one whereby] the state shall be the sole fountain of issue, under which no money shall circulate on credit, or if it does, shall circulate on the credit of the state... The power of issue is, and ought to be, a sovereign right.' (Cited in Rowbotham, 189) Soddy reiterates this view when he states that '...the state itself should issue genuine money... [and that] the banks have usurped the prerogative of the Crown with regard to the issue of money....' (Cited in Holloway, 95) This view is often accompanied by supporting quotations from Thomas Jefferson, as in 'Back to Basics' an article by Brian Leslie, editor, in *Sustainable Economics*, May 1999, and to Abraham Lincoln's 1865 *Monetary Policy*.[75]

Finally, monetary reformism places a severe questionmark over the issue of money as debt, that is, at interest. For Holloway, for example, 'the right of the banks to treat such created credits as a loan and to receive payment of interest thereon is unjustifiable...' (4) Many outside monetary reformism will contest this view, but it is also questioned within the movement. Dixon (1999), for example, an accountant active in the formulation of Green Party policies, argues two important points: '(1) It is society that creates money (out of debt) by its economic activities by using the banking system. Banks do not create money by themselves but in conjunction with the public. (2) The fractional reserve system is not a licence to print money. Banks may increase the level of deposits many times, but they have matching assets. Fractional reserve lending does not create money out of nothing, nor does it lend out more money than it has on deposit.'

A Question of Seignorage

In many ways, therefore, the whole debate is one of seignorage. Where should seignorage be located? In whose account should it arise? Clearly, if money issue is seen as a prerogative of the state, seignorage belongs to the government. In their accounts, most central banks show seignorage on cash rather than credit being remitted to government either as an expense or as profit because the government owns the central bank. But cash is a dwindling proportion of the monetary base, so the major part of seignorage stays with commercial banks, which is the real issue for monetary reformists. The debate thereby readily becomes a socialist versus capitalist discussion, and, indeed, many in the movement have the tenor of the former.

As seignorage has been discussed in Section 3.1.9, this aspect will not be commented on further, but the fact that monetary reformism is a debate over seignorage is evident in a recent publication on money issue by Huber and Robertson (2000): '...the crucial point is that ... it will be an essential, integral part of seignorage reform to ensure that the central monetary authorities' decisions ... are independent of government interference... [but that] by retaining responsibility for deciding on the objective of monetary policy, the government clearly [retains] an important monetary policy role.' (17-18) The difference, of

[75] A fuller reference to the views of the Founding Fathers is to be found in the recent book, *The Money Masters*, Royalty Production Company, Piedmont, USA, 1998.

- counterfeit does not pose a major problem

- banks are not inherently prone to over-issue and suspension

- banks will not hold chronically insufficient or excessive reserves

- bank runs are not an endemic problem

- there is no clear need for a lender of last resort

- no pyramiding of reserves, making credit inherently unstable, takes place

- no natural monopoly exists in the production of paper currency

- proliferation of bank note brands is not a problem

Central to the free banking concept is the clearing house, under which system not only do currencies clear, but over issue is pre-empted. If a participant issues more than it can clear, the clearing house immediately will realise it and put sanctions on the member so that the problem will never get out of hand. It is important to note, therefore, that, although against central *banking*, free banking recognises, both theoretically and in practical instances, the need for a centralised clearing function – not on political grounds, to be sure, but out of the practicalities of enabling the interchangeability of currencies yet providing for the return of over-supplied or 'bad' money. It is also said that this clearing function is in the self-interest of the issuers of currency. Horowitz (1992) regards clearing as neutral to the players,[76] contextual to rather than within the market.

As envisaged by Dowd (1993), free banking is regarded as the multiple issue of cash by competing banks, whose notes, however, are interchangeable and redeemable against a 'community-recognised commodity', while option clauses protect against 'sudden excessive demands for liquidity'. This device obviates the need for a lender of last resort, since monetary and financial stability are guaranteed by market-determined currencies and interest rates.

Free banking has never been tried on a systemic basis. Therefore, apart from directly theoretical expositions on how it is supposed to work,[77] advocates of free banking can only point to limited historical experiences, notably in Scotland, France and the USA. These are nonetheless instructive.

According to E. White (1991), 'the French experience provides additional useful evidence on the viability of banking where there is free entry and the issuance of liabilities is unregulated.' (131) He also notes the important parts played by a vigilant public and banks when eager to protect their reputations. In the US in the early 19th century there were several essays in free banking, with various, often untoward, outcomes. A successful example, however, was the Suffolk system, described by Dorn (1991) as having several important features: adherence to convertibility, conservative and capable management, a self-regulating

[76] 'They key to this process is that market profit-and-loss signals generated through the clearing process guide bankers to take the appropriate actions.' p. 136.
[77] For example, Hayek's 'Denationalisation of Money', discussed later in the section.

structure 'in which self interest [was] harnessed for the benefit of the system as a whole as well as for noteholders,' and a reputation for redemption (rather than bond collateral or deposit insurance), giving 'all parties an incentive to comply with sound banking practices.' (117-8)

Dorn's view is significant because he uses the following yardstick: 'Monetary stability is a prerequisite for a smoothly functioning market economy. Erratic money produces price level instability, which distorts market prices and interferes with the efficient ... allocation of resources [and exposes] the banking system to greater risk and uncertainty. A sound monetary system, providing for normal growth in the monetary base as real economic growth occurs, helps safeguard the banking system from monetary disturbances that can have system-wide effects.' (111) While for Dorn, fractional reserve lending requires outside or high-powered money in the event of a liquidity crisis, it is for him an open question whether this requires a central bank or could be provided by a private mechanism.

Systemic experience of free banking is absent because the threat it represents to governmental printing of money has always provoked early suppression. In France, for example, E White claims that 'Laissez-faire banking came to an end because the government needed to fund its deficits,' (147) giving rise to Capie's argument that central banks are 'proposed by the state essentially for the state's purposes.' (153) Dowd (1991) is emphatic: central banking did *not* evolve to counter market instability, as is often suggested. In the case of the Bank of England, at least, it was a matter of consolidating the Bank's power by way of its 'control over the banks' redemption media ... [which was] well-established by ... 1821.' (181) He asks: 'Given that there were no legal obligations to use Bank liabilities as reserves, why did individual banks continue to use them when the price, in effect, was their own independence?' (181) His response is that few alternatives acceptable to the public existed, the banks were accommodating themselves to the Bank of England's hegemony, and there was an advantage to be had from the systemic rather than narrow interests of the Bank of England (qua central bank) – the price paid for its supremacy.

Dowd is supported in his view by Benston (1991), who argues that '...regulation has overwhelmingly tended to make the banking system and individual banks less stable. Central bank control of the money supply and of supervisory monitoring of bank activities to reduce fraud and gross mismanagement are notable possible exceptions.' (227) In Benston's view, 'the principal reason for bank regulation ... is taxation by government authorities of seignorage. Because governments tended to debase the money they produced ... bank-produced money often came to dominate [so] those in power could increase the tax ... on bank money ... by limting entry into banking... Hence, bank regulation [in the US] was almost exclusively limited to restrictions on entry.' (228)

In essence, then, free bankers argue for a system in which there would be no central bank and no central reservoir of reserves. Each individual bank would be responsible for keeping its own reserves and the convertibility of its own note and deposit liabilities. Under free banking, the pursuit of self-interest would lead to a transfer of funds to prudently and conservatively managed banks. Market forces would, therefore, bring about a satisfactorily working banking system without outside interference or regulation.

Goodhart's (and Others) Criticisms

Criticism of free banking can be trenchant. Predictably, all central bankers interviewed were dismissive of the idea, even though they did so on the basis of contestable evidence and with the 'advantage' that free banking has never been tried on a systemic basis.

Goodhart (1988) is representative. For him, neither traditional free banking arguments nor the more modern views of Hayek and others prove a case against central banks. None of them shows that 'the introduction of an outside agency to regulate and control the banking system represents an undesirable intervention in the otherwise satisfactory working of a free-market system in the banking industry.' (2)

Goodhart does not accept the free banking argument, notwithstanding its advocacy by no less a light than Bagehot, who claimed that maintaining a good reserve was the natural way for a bank to 'show strength' in adverse conditions. 'Such a system [as free banking] reduces to a minimum the risk that is caused by the deposit. If the national money can safely be deposited in banks in any way, this is the way to make it safe.'[78] Instead, Goodhart asks, 'is not the development of such centralisation also a natural phenomenon?' (17) He claims that, while its dislike by free bankers is partly a matter of their free trade perspective, it is really rooted in 'a distrust of government management of paper currency' (19) that stems, understandably enough, 'from [occasions of inconvertibility]: e.g., John Law's Banque Generale in France in 1716, the suspension of convertibility in the UK by the Bank of England, 1797-1819, and the issue of assignats by the Caisse d'Escompte in 1790...(20) [and] from dissatisfaction with [the] discretionary handling of monetary management.' (27)

Goodhart wonders, however, whether the maintenance of sound money would be substantially different under free banking than with a central bank? He cites unpublished commentary by Pressnell:[79] 'Designating the note issue of a bank 'legal tender' does not necessarily change the position that it will be acceptable only if sustained by real resources, e.g., by command over the economy through taxation, or by convertibility into gold or other currencies. Lacking such support, would not legal tender make a currency forced currency?' (23) Goodhart continues: 'There are two flaws in [the free banking] analysis. The first ... is that the clearing house mechanism tends to lead all banks to expand, or to contract, at a broadly similar rate, but does not itself determine what the resulting average rate of growth might be, nor whether it would be stable, or subject to sharp fluctuations. The second, even more serious, flaw ... is that [it ignores] the possibility of more aggressive banks seeking to prevent the clearing house losses that would result from rapid expansion by making their liabilities relatively more attractive.' (30)

According to Goodhart, 'free banking tends at best to be procyclical in operation, and at worst may be directly responsible for severe fluctuations.' (50) Naturally, advocates of free banking do not accept the argument that it is inherently unstable. They point instead 'to the examples of Scotland and Canada, where, despite the absence of a central bank in the nineteenth century, the banking system had remained

[78] Bagehot, Lombard Street, John Murray, London, 1927, p.104.

generally robust.' (51) And yet, Goodhart points out, 'the final reason for the comparative success of these banking systems may reside in the improbability that under gold standard conditions neither the Canadian nor the Scottish banking systems could be said to be independent of New York and London.... The Swiss also had a banking system without a central bank in the nineteenth century... In practice, however, they relied on the Banque de France [until] the resulting adverse experience persuaded the Swiss that they needed a central bank of their own.' (52) 'Despite the record of the Canadian and Scottish banks, [therefore,] experience suggested that competitive pressures in a milieu of limited information (and, thence, contagion risks) would lead to procyclical fluctuations punctuated by banking panics. It was this experience that led to the formation of non-competitive, non-profit-maximising central banks.' (77)

For Goodhart, however, there is a still more serious problem: the 'conflict of interest between profit motive and the needs of the banking system comes not with panic, but in quieter periods.' (53) In quiet times gold reserves are minimised by commercial banks in order to maximise their profitability, but this transfers reserve responsibilities to the central bank. Thus, competing commercial banks - especially in quiet times - are able to function because of, not in spite of, the central bank in this respect. Moreover, 'in order to be effective in controlling banking cycles, it is necessary for a central bank to supplement support action at times of crises with restorative measures during periods of general optimism and expansion. The latter is extremely difficult, probably impossible, for a bank competitively seeking to maximise profits... Once again, it is the non-competitive aspect of the central bank that is crucial to the performance of its role.' (54-55)

Goodhart is not alone, of course. Munn (1991) regards the prospect of turning 'an insufficiently researched 18th and 19th century historical topic into a policy prescription for the late 20th century [as] a highly questionable procedure, (63) although he concedes that '[while] the case for free banking in Scotland is ... 'not proven' ... the case against is not yet ready to be brought to court.' (67) Bruneel (1991) admits that 'the very idea of free banking is a nightmare for a central banker.' (155) For him, free banking does not demonstrate success, being rather a story of bank failures, lack of confidence, counterfeit notes, and so on. He also considers the contrast between public versus private issue to be a red herring when non-fiat backing is used.

Changing Circumstances

On the face of things, the contrast to date between unregulated and central banking does not admit to resolution and the controversy surrounding free banking is hardly likely to lessen. Circumstances are changing, however, and central bank independence may yet provide a spur to unregulated banking. After all, it is not so big a step, technically speaking, for a monetary policy committee to align its judgement with that of the markets. Indeed, were it truly independent of government, it is difficult to see what else it would do. The main difference would be that its view would be systemic, that of players in the markets partial. Moreover, to those of an abolitionist frame of mind, operational independence can readily be seen

[79] Professor Pressnell, now retired, recollects this being a paper delivered at an IEA seminar discussing Hayek's work on freedom in the issue of money.

as a way of distancing the central bank from political influence. From a free banking perspective, operational independence can be seen as a narrowing down of the role of the central bank to that of interest rate setting, not as an end in itself, since this clearly contradicts Hayek's view that no policy could be more mistaken, but as a way of confining the remit of central banks to a wholly market environment. In this connection, Capie reminds us of L.White's four tests, which free banking would need to fail on a systemic basis before it could be deemed impracticable on any serious grounds: the need to avoid over issue, to maintain convertibility, to provide a unit of account, and to secure stability. (152)

A second important development in terms of unregulated banking is the rise of virtual finance (Section 3.1.7), with which it may well have a significant synergetic relationship. Not only does virtual finance foster a clearer understanding of the nature and workings of money, and thus of its 'proper' management, but its electronic issue aspect may well provide a technical means to bring free banking into play. Provided the electronic issue of money does not become subject to censorship or outlawing,[80] it may well give rise to competitive money issue. Chief among the influences that suggest such a scenario are the following:

1. Because bits and bytes are more easily re-defined than banknotes and coins, it may be easier to revise or change currency representation, leading, in the case of countries, to easier entry and exit to monetary unions, and facilitating inter-currency switching by end-users and, therefore, private money issue.

2. The opportunities for transparency afforded by Internet applications mean money can be backed as easily by commodities as by indices, or both.

3. The increasing use of distribution channels such as the Internet, digital TV, and mobile phones, may enable 'good money' to reach end-users more easily. Conversely, end-users that have need of a reliable medium of exchange may find it easier to reach better alternatives. For the same reasons, mismanaged money may become limited.

4. Ease of access to e-money may speed up the formation of a critical mass, in terms of widespread recognition and appropriate worldwide liquidity and systemic support.

To complete the picture, these many attributes of electronic banking clearly reflect key features of Hayek's conception of denationalised money, considered later – such as basketisation, autonomous agreement regarding the unit of account, and indexation.

These changing circumstances in the world of finance suggest that unregulated banking remains relevant to modern problems. In asking whether 'governments have any well-founded reason to play a role in producing money or in regulating private firms that produce money,' Chrystal (1991:70), for example, wonders if the eurocurrency is not an unregulated example of free banking. Rockoff (1991:76) argues that the relevance of modern free banking would depend on how it fared in regard to five key issues:

[80] The proviso is substantial, of course, but this entire dissertation is confined to the economically conceivable, rather than the politically probable.

1. The question of its backing, whether gold or commodity base.

2. How effectively it replaced the central bank as lender of last resort by a decentralised market mechanism.

3. The issue by banks of cash (hand-to-hand money).

4. Whether it permitted, and how it managed free entry.

5. Whether there should be a distinction between general protection and protection for the unsophisticated only.

Notwithstanding the lack of systemic experience and the obviously unfavourable bias of central bankers, it is far from clear that free banking is a 'fringe' concept. Given the virtualisation of finance and money's consequent escape from central bank control, and insofar as free banking considers that sound money not only delivers price stability but also financial stability, central banking may yet have to take a leaf out of the free banking book.

The Capie-Wood Perspective

To understand why this might be, it is necessary to consider the conceptual underpinnings of free banking in more detail, clear representation of which is to be found in remarks made by F Capie and G Wood in both editorial and discussant capacities. Two texts in particular come to mind – Hayek's *Denationalisation of Money* (1990 edition), in which Wood writes an introduction, and *Unregulated Banking*, a collection of symposium papers published in 1991. Being of the same 'vintage', these texts presumably tell the same story.[81] Although a decade is a long time in today's world, such is the consistency of the authors' arguments over many years that it seems fair to claim the representation below as a faithful one. The implication, which is conscious, that Capie and Wood share one view is justified in that they are the co-authors of one of the texts cited, as, indeed, they are for a number of other publications.

Wood makes his position very clear in his introduction to the third edition of Hayek's book (19-22): '...price stability can be achieved only by removing from national governments their monopoly of money creation' and opting for monetary competition. He observes that in the 18th and 19th centuries in Scotland, France, and the USA, there have been 'episodes where there has not been a government monopoly of money..., [and although] none of these episodes emerged as one of perfect monetary performance, and none is recent ... all turned out to be more stable than government monopoly of money...'

For Wood, the datedness of the examples 'is irrelevant, for the principle they illustrate is the timeless one that incentives influence conduct.' It is indeed central to his view that mischief follows when incentives are not linked to outcomes and that, therefore, it is essential to harness 'the incentives of prestige and profit to deliver stable money.'

[81] See also Wood (1989), Banking and Monetary Control after 1992. IEA No 29.

Wood's concern is focussed especially on the powerful role of seigniorage. The income to be had from money creation provides an important incentive, but issuers should also carry any downside associated with this activity. It is a chief argument against governmental seigniorage - either directly if money is issued by the government, or indirectly if a source of taxable banking profits in a context of restricted bank issue (see later discussion) - that it is an 'upside only' arrangement, with any losses passed on to the taxpayer or to society generally in terms of economic ineffectiveness.

This view is apparent in Wood's reiteration of Hayek's many complaints against inflation: Its arbitrary redistribution of wealth between borrowers and lenders, its disruption of the efficient working of capital markets, the fact that it makes future prices harder to foresee and current price movements harder to interpret, and its deeper effects in terms of misdirected production and misallocation of resources. In a word, 'the benefits of stable money [do] not end with a stable price level.' Achieving and maintaining price stability is only part of the story: its real justification lies in the beneficial effects it has for the wider and longer-term reaches of economic life.

In this context, Wood is suspicious of superficial understandings and expectations of central bank independence. He notes, for example, the widespread fall in currency values in the decade prior to 1990, even in Germany, Switzerland, and the USA, where the central banks enjoyed strong measures of independence. This is 'surely evidence enough that an independent central bank is ... no guarantee of satisfactory monetary performance [i.e. constant value],' a weakness Wood insists is connected to the fact that incentives are not harnessed to outcomes. Thus: 'How, then, to achieve monetary stability [i.e. steady and predictable money growth]? ...there can be no doubt that a [monetary] rule would end the grosser failures of monetary management. But why do we need to regulate our suppliers of money? Here competition comes in. For regulation ... can be defended only if [there is no regulation] by competition. In general, competition will deliver the best attainable outcome.'

This remark makes clear Wood's basic premise, namely, that the 'norm' should be competitive money creation, and that the monopolistic and discretionary procedures of central banking[82] should at best be used only secondarily.

It is in regard to the philosophy of competitive money issue that the seamlessness of view between Capie and Wood is most evident, informing, for example, the perspective adopted in their editorial introduction to *Unregulated Banking*. Centre stage is the ideal of competition, from which they identify three main divergences: externalities, asymmetric information, and market power. The essential question is, therefore, how to avoid (or, if unavoidable, remedy) market failure, that is, the failure, when it happens (or were it to happen[83]), of private competitive money issue to deliver 'steady and predictable monetary growth' on an on-going basis.

[82] Note the implied definition of central banking.
[83] Given the scarcity of historical experience and the fact that free banking has never really been tried on a systemic basis, it is important not to prejudge this matter.

The image of Capie and Wood is that competition in itself is a regulating mechanism that works autopoietically by achieving stability and general reciprocation in prices through the free interplay of the actors in the economy. The opposite concept, of course, is one whereby an arbitrary result is preconceived and 'monopolistic and discretionary procedures' are used to force the economy to conform to it. It is in this sense that it is not 'right' to interfere in the workings of the market by managing money. 'The era of managed money we have seen since 1914 has been one of major inflation and major recession, both produced by central bank failure.' (34)

To the extent that regulation is justified it needs to be 'in the direction of competition'; that is to say, designed to render money creation subject to market forces and to 'regulate out' any arrangements that do the opposite. Capie and Wood point to Stigler's definition of regulation - '...any policy which alters market outcomes by the exercise of some coercive government power' (xiii) – because it 'most usefully' distinguishes between coercion and incentive. There is a world of difference between behaviour that is prescribed from outside the human being and behaviour provoked or engendered from within, where reliance is placed on the concept that, left to themselves, individuals will find a mutual interest in seeking the most cost-effective means of money issue. To encourage such behaviour is acceptable, therefore, but not to enforce it.

Three further distinctions made in the course of Capie and Wood's discussion of regulation are very instructive. Firstly, the distinction between normative and effective regulation – between what regulation is supposed to do (Kay and Vickers 1988) and what it actually does (Stigler 1962, 1964, 1971). Secondly, between regulation of structure and of conduct. Thirdly, between self-regulation,[84] regulation by public authority, and regulation by statute or rule.

The assumption seems to be not only that the *actual* effects of regulation should take precedence in our minds over the *supposed* effects, but also that, according to Stigler, the actual results are generally ineffective or of benefit primarily to existing actors (firms). They do not eliminate market failures and are restrictive of competition. While regulation is said by Benston to affect individual bank stability through constraints on diversification, effects on profitability, limits on opportunities for 'bad' risk taking, and monitoring for fraud and incompetence, the results seem rather to demonstrate restrictiveness, reduced profitability, increased bad risk taking, and inadequate monitoring. Indeed, Capie and Wood align with Benston's view that regulation of the coercive kind is a means, as noted earlier, whereby governments capture seigniorage through increased bank profits and thus tax take.

It is against this background that Capie and Wood make their key policy recommendations concerning modern central banking: if there have to be central banks - that is, if their abolition remains a 'political impossibility' (Hayek), then their behaviour should conform to the precepts, or at least 'tend in the direction', of competition rather than external coercion. In his comments on Goodhart's (1991) paper concerning the necessity of central banks, Wood cites Bagehot, whose recommendations[85] were 'second

[84] For example, by investment in and protection of reputation.
[85] In *Lombard Street*, 1873.

best to … privately issued money… He recommended it only because he considered the English banking system too habituated to living with a central bank to return to the superior monetary system.' (29) If there are to be central banks, therefore, their 'primary concern should be with the stock of money; there is no need for it to have any concern with the payments system.' (30)

This leads to a number of considerations of substantial importance. Firstly, central banks should not stray beyond the classical lender of last resort function of lending to the market and not engaging in bail-outs of individual banks. Secondly, they should not extend the lender of last resort role because doing so creates moral hazard at the banks. Thirdly, they should not undertake supervision per investigation because this is merely a response to extended lender of last resort. As Wood puts it:

> 'There is no need to bail out insolvent institutions. The lender of last resort should be the classical one … [by which] the payments and settlements system is also protected… [Moreover,] why should central banks supervise and regulate the banking system? It is clearly not required for their lender of last resort role; they could … rely on private rating agencies…, [while] the restrictions imposed by supervisors, such as capital adequacy, are either what banks would themselves choose and are therefore redundant, or in excess of that and therefore a barrier to entry… [Indeed,] herdlike behaviour seems not an intrinsic trait of bankers, but rather the product of a supervisory system where there is a good chance that bankers keep the gains and taxpayers the losses.' (30-33)

For Capie and Wood, any regulation that survives their strictures should 'enhance the stability of the key elements in the banking system – these being banks which take deposits from the public and are responsible for maintaining the money supply.' (xv) There is a legitimacy in measuring capital adequacy and portfolio risk (both assets *and* liabilities), therefore, but all regulation should be targeted on and make use of 'market mechanisms', the purpose *and* effect of which should be to give incentives to competition.

Hayek's 'Denationalisation of Money'

The views of Capie and Wood are linked, of course, to those of Hayek, especially the case he makes for the denationalisation of money, key aspects of which are highlighted below and in his own style as much as possible. Considerable space is given to Hayek's views, not only because they reach to the water-table of economic liberalism, but because he contemplates the same world envisaged by auditorial central banking – the world beyond national economies.

'The purpose of [the denationalisation of money] is to impose upon existing monetary and financial agencies a very much needed discipline by making it impossible for any of them, or for any length of time, to issue a kind of money substantially less reliable and useful than the money of any other… individual countries, being deprived of the various dodges by which they are now able temporarily to conceal the effects of their actions by 'protecting' their currency, would be constrained to keep the value of their currencies tolerably stable.' (23)

The last sentence is a reference to central banking, the abolition of which Hayek is a keen advocate (see below). He is scathing about the 'medieval superstition' of conferring on the central bank the status of monopoly money issuer, that is of decreeing central bank issue only as legal tender. 'The term 'legal tender' has … come to be surrounded by a penumbra of vague ideas about the supposed necessity for the

state to provide money. This is a survival of the medieval idea that it is the state which somehow confers value on money it otherwise would not possess.' (37)

Hayek, therefore, argues for the replacement of fiat money by competitive issue in a context of market-determined exchange rates. 'With variable exchange rates ... [any] inferior quality money would be valued at a lower rate and, particularly if it threatened to fall further in value, people would try to get rid of it as quickly as possible. The selection process would go on towards whatever they regarded as the best sort of money among those issued by the various agencies, and it would rapidly drive out money found inconvenient or worthless.' (43) 'Competition would certainly prove a more effective constraint, forcing the issuing institutions to keep the value of their currency constant (in terms of a stated collection of commodities), than would any obligation to redeem the currency in those commodities (or in gold). And it would be an infinitely cheaper method than the accumulation and the storing of valuable materials.' (48) In Hayek's view, the manager of each issuing bank 'would learn that its business depended on the unshaken confidence that it would continue to regulate its issue ... so that [its] purchasing power remained approximately constant.' (49)

'[To this end,] the issuing bank ... can sell or buy its currency against other currencies (or securities and possibly some commodities); and it can contract or expand its lending activities... [using] relatively short-time contracts so that, by reducing or temporarily stopping new lending, current repayments of outstanding loans would bring about a rapid reduction of its total issue.' (59)

Competitive issue also relies on the generalised constraint of a stable unit of account. 'In particular, the chief task of accounting - to ensure that the stock of capital of the business is not eaten into and only true net gains shown as profits available for disposal by the shareholders - can be realised only if the value of the unit of account is approximately stable.' (69)

As to the meaning of value, Hayek observes, 'Strictly speaking, in a scientific sense, there is no such thing as a perfectly stable value of money - or of anything else. Value is a relationship, a rate of equivalence ... which can be stated only by naming the quantity of one object that is valued equally with the 'equivalent' quantity of another object. ...When we apply the term 'value' to money itself what is meant is that the price of most commodities will not tend to change predominantly in one direction, or will change only little, over short periods.' (69-70)

Hayek's argument intensifies when he points out that the monetary ideas are usually predicated on there being only one money in circulation, a fact that is perhaps analogous to the effect in a community when subject to a dictate that only one language will be spoken. If several languages are current, however, and if none is primary per force of law, communication relies on being able to go behind the immediate words. For Hayek, something similar seems to be required in monetary matters. The arbitrariness of only one currency masks deeper possibilities, particularly as regards our understanding of the quantity theory of money (on which many place reliance – see Appendix 6), which becomes 'wholly useless where several concurrent distinct kinds of money are simultaneously in use in the same territory... [because],

even with a single currency in circulation within a territory, there is, strictly speaking, no such thing as *the* quantity of money, and that any attempt to delimit certain groups of the media of exchange expressed in terms of a single unit as if they were homogeneous or perfect substitutes is misleading...' (80-81) For Hayek, 'no authority can beforehand ascertain, and only the market can discover, the 'optimal quantity of money'.' (81) This thought leads to the further idea of creating 'the conditions in which responsibility for the control of the quantity of the currency is placed on agencies whose self-interest would make them control it in such a manner as to make it most acceptable to the users.' (92) As to whether competitive money issue would not collapse back to one money, Hayek responds, 'money is the one thing competition would not make cheap, because its attractiveness rests on its preserving its 'dearness'...' (94)

Hayek envisages issuer behaviour being constrained by a generalised pressure from end-users, in order to overcome 'the past instability of the market economy [as] the consequence of the exclusion of the most important regulator of the market mechanism, money, from itself being regulated by the market process.' (102) Furthermore, he is emphatic in regard to the need to overhaul how we envisage the structuring and functioning of global economic life. First of all, 'with the disappearance of distinct territorial currencies [would go] the so-called 'balance-of-payment problems' believed to cause intense difficulties to present-day monetary policy.' (103) More far-reachingly, 'the obvious corollary [of] the abolition of the government monopoly of the issue of money should involve [is] disappearance of central banks as we know them... the need for [which] is, however, entirely due to the commercial banks incurring liabilities payable on demand in a unit of currency which some other bank has the sole right to issue, thus in effect creating money redeemable in terms of another money.' (105-6)

> 'This ... is indeed the chief cause of the instability of the existing credit system, and through it of the wide fluctuations in all economic activity. Without the central bank's (or the government's) monopoly of issuing money, and the legal tender provisions of the law, there would be no justification whatever for the banks to rely for their solvency on the cash to be provided by another body. The 'one reserve system', as Walter Bagehot called it, is an inseparable accompaniment of the monopoly of issue but unnecessary and undesirable without it.' (106)

> 'It might still be argued that central banks are necessary to secure the required 'elasticity' of the circulation, ...[but this] will only be solved if the issuer of a given currency is aware that his business depends on so regulating the quantity of his currency that the value of its unit remains stable (in terms of commodities)... What makes a currency a universally acceptable - that is, really liquid - asset will be precisely that it is preferred to other assets because its buying power is expected to remain constant.' (106)

> 'What is necessarily scarce is not liquidity but buying power - the command over goods for consumption or use in further production, and this is limited because there is no more than a given amount of these things to buy. So far as people want more liquid assets solely to hold them but not to spend them, they can be manufactured without thereby depreciating their value. But if people want more liquid assets in order to spend them on goods, the value of such credits will melt between their fingers.' (106)[86]

Finally, in Hayek's vision, along with central banks and monopoly issue of money, would also disappear the possibility of deliberately determining the rate of interest. 'The rate of interest, like any other price, ought to record the aggregate effects of thousands of circumstances... [and] changes in the rate of interest convey to all concerned that an aggregate of circumstances which nobody knows has made them

[86] Does this not allude to the idea of distinguishing between, indeed decoupling, cash and credit – see Section ___?

necessary ... since only competition in a free market can take account of all the circumstances which ought to be taken account of in the determination of the rate of interest.' (107)[87]

> 'So long as each separate issue bank ... aimed at regulating the volume of its outstanding currency so as to keep its buying power constant, the rate of interest at which it could do so would be determined for it by the market ... by balancing the demand for money for spending purposes with the supply required for keeping the price level constant. I believe this would assure as close an agreement between saving and investment as we can hope to achieve, leaving a balance of change in the quantity of money to take account of changes in the demand for money caused by changes in the balances people want to hold.' (107) 'Of course, government would still affect this market rate of interest by the net volume of its borrowing. But it could no longer practise those most pernicious manipulations of the rate of interest which are intended to enable it to borrow cheaply - a practice which has done so much harm in the past that this effect alone would seem an adequate reason why government should be kept away from the tap.' (107)

Free Banking in ACB Terms

In the ACB perspective, free banking is interesting because it seeks to overcome (or avoid) 'mismanagement of money', a problem it lays at the door of monopolistic and discretionary central banks. It thus lies with the grain of the ACB concept that neither governments nor private agencies should interfere in the money supply, to which end, the management of the economy, which is not the same thing as managing money, needs to be based on neutral, objective, transparent, and economic principles.

In the detail, however, any similarity depends on ones conception of the 'centre' of the financial system. If one considers central banking in its economic, as distinct from political meaning, the adjective 'central' can be read as referring not to governments' use of central banks as instruments of centralised financial control, but to the fact that the financial system ineluctably has nodal points or centres, places at which the system as a whole comes to a focus. Since this also underlies the free banking concept of a clearing house, it is not, therefore, a question of whether or not such a central agency can be avoided, but of the form it takes, whether it is forced by a 'central bank' or shaped by market forces. Any differences in conception will be determined by our understanding of the nature of the financial processes at the 'centre' of an economy and whether these should be managed so as to enable the free working of market forces or made subject to interventionist and regulatory policies.

Insofar as free banking is predicated on competitive issue of money, end-user preference is a function of the soundness or backing of a money, not just its name. It is important to note in this regard that, although sound money usually means 'real' backing, real can have various meanings, ranging from 'solid gold' to non-inflationary behaviour. In this sense, given that central bank independence and single objective monetary policy are intended to make government money sound, their recent ascendance would seem to overlap, if not confirm, the free banking notion, although they are neither conceived nor intended as such.

Where a national currency (even if state-issued) obeys the precepts of price stability, it should be able to compete with other currencies.[88] Indeed, in this sense, the advent of central bank independence may act as

[87] In ACB terms, that interest rates are market determined does not mean they cannot be systemically and auditorially perceived, anymore than reading the temperature in a room amounts to manipulating the mercury in the thermometer.

a transition arrangement, the more so because it shares the underlying argument of free banking that market forces provide monetary objectivity and are in that sense beyond opinion or sectoral capture. Moreover, free banking's joint concept of unregulated issue of bank liabilities and unmanipulated supply of base money (cash) [89] closely resembles the chief characteristics of virtual finance. Free banking may not, therefore, be as distant a prospect as one might think, hence the importance of avoiding too fixed usage of terms, giving rise to a false antithesis between free banking expectations and the underlying nature of modern financial developments.

Where free banking differs from the ACB concept is in its concept of the centre of the financial system. The free banking concept is of a clearing house between financial institutions. That of auditorial central banking is of the central bank reduced to an indirect, signalling institution - the central bank become auditor. In today's environment, wherein money is becoming increasingly informational in nature, as well as losing its assymetry, the medium of both clearing house and auditorial central bank would seem to be similar – money qua information flows – as, indeed, might be their effects. The debate is not an either/or one, therefore, but is about the kind of transformation required of central banking if it is to match the marketisation of finance. Indeed, there seems to be a point, conceptually at least, at which central bank independence, free banking and auditorial central banking overlap.

The discussion arrives, thereby, at an important question: What is the substance of monetary soundness? It does not help to say *either* regulation *or* the market, not only because the market is itself a form of regulation, but also because the need for sound money remains whatever agency is responsible for its integrity. In this sense, fiat money ought not to be equated with unsound money. It may have a history of being so, but it is not so by definition. Whether fiat money is unsound depends on how it is conceived and organised. If by 'fiat' we mean man-made, the question is whether this necessarily means 'government issued', and whether government issue necessarily means manipulated or money by decree. Be it governmental or of the market, the more any agency concerned with monetary management can bring 'the public interest' in line with economic fundamentals, the sounder will the money be.

Finally, as meant here, monetary management does not refer to 'managed money' – direct manipulation of the money supply or the conduct of an interest rate policy. In the auditorial sense, it means providing incentives and giving encouragement to behaviour that results in price and financial stability, rather than requiring behaviour to comport with fiat-determined goals.

[88] See earlier reference to Pressnell: 'Designating the note issue of a bank 'legal tender' does not necessarily change the position that it will be acceptable only if sustained by real resources...'
[89] Per L.White 1995.

This section of the topic survey plots the emergence of auditorial central banking in the context of the foregoing discussions on monetary themes and types of authority, and then locates the concept of auditorial central banking in the literature on central bank independence indicators.

The discussion to date has shown that, although on the face of things central banking, alternative monetary authorities, and monetary reformism suggest different types of monetary authority, when considered in detail their effective status turns on whether the monetary authority is a department or agent of government. All, in fact, are versions of central banking, the real difference being whether they represent statist or market concepts, dependent central banking and central bank independence.

In contrast, free banking, would have the central bank disappear in favour of a fully marketised, unregulated system of money issue and credit creation. On the face of it, the prospect of this coming about seems slim, at least in terms of the wide-ranging changes in socio-political structures and general financial awareness that unregulated banking presupposes, and certainly in the minds of central bankers.

The perspective contemplated by this thesis, however introduces the idea that, despite itself, central banking may yet be heading for a midpoint between centralised and unregulated banking, namely, auditorial central banking.

To recapitulate, although central banks have acquired many functions that they fulfil on behalf of governments, the focus of this study is on their role in what one might call systemic management of the economy. While for many people this may be a proper and appropriate role for government, auditorial central banking does not regard monetary matters as needing to be carried out by governments. Indeed, history shows that when governments control central banks they often cause considerable financial and monetary mischief. Auditorial central banking looks beyond central banks as instruments of short-termist and/or inflationary policies, let alone as a means whereby governments can give effect to profligacy, to envisage their emancipation from governmental control. The concept thus takes account of such actual developments as the transfer of debt management out of central banks and the private delivery of public account operations. It also envisages a change of emphasis in the role of central banks towards financial data collection, as in the example of the recent Bank of England Act, which gave the Bank the right to collect from any source all kinds of data pertaining to a full analysis of the functioning of the economy. Finally, auditorial central banking entails taking the international or global context as a primary frame of reference, a characteristic shared with free banking concepts of denationalised money.

Auditorial central banking seeks a natural evolution away from interventionism to contextual influence. Under free banking, at the centre of the economy is a clearing house for financial institutions based both on competitive issue and competitive backing. In this system, financial data are generally available and

the onus is on the user to assure himself that he is not accepting 'bad' money. Similarly, as its name implies, auditorial central banking distinguishes between central *banking* and central *auditing*, referring to arrangements in which central bank functions have been reduced and focussed on to the collection and analysis of financial data so as to make sound judgements for otherwise market-based activities, enabling the markets to do the work of the central bank, especially in regards to monetary policy and financial supervision. In this sense, an auditorial central bank acts as a societal agent in its own right, focusing on contextual decisions, but otherwise leaving the direct provision and management of both cash and credit to the markets, a concept that very much reflects free banking's clearing house.

Again, recent developments at the Bank of England provide a case in point. As well as having made price stability the focus of its monetary policy, pursued in the framework of central bank independence, the Bank has devolved (or been divested of) supervision and debt management. It has also set up a Monetary Policy Committee as a body of financial and economic experts with a clearly economic remit – to deliver price stability. Whether or not the Bank can be seen as a model (see Section 6.4: The Replicability of the Bank of England), the fact seems certain that it illustrates a clear trend in central banking to allow central bankers to take decisions in accordance with market initiatives, rather than government interests.

3.3.1 Auditorial Central Banking - an Incipient Phenomenon

Section 3.2.1, in which the nature of central bank independence was outlined, both as expressed by central bankers themselves and in the view of Fischer, provides interesting food for thought as regards the emergence of auditorial central banking. Although the focus was on operational independence and gave general expression to the central bank independence consensus, there were several points at which the idea presented itself that central bank independence is not a static state of affairs and, prompted by the deepening globalisation of economic life, may well contain the seeds of its further evolution.

How, for example, do central banks maintain the role Zijlstra cast them in, as 'guardians of the integrity of money' under conditions in which credit creation is passing out of the banking system into the financial markets generally? Under such conditions credit threatens the soundness of the currency because the latter's internal value, even if safeguarded by domestic price stability, is under the constant influence of unpredictable exchange rates that can no longer be determined by dictate or decree.

A clue is perhaps provided by Lord Cobbold's observation of a trio of institutions - central banks, governments and the financial markets. Of course, many see the central bank as an arm of government (even central bank independence does not necessarily contradict this), but this idea surely needs to be reviewed today. To distinguish, as does Rasminsky, between 'the time horizon' of the central bank and that of the government, is to hint that central banking has its own locus in society, with the real relationship between central banking and government being one of shared societal responsibility.

These remarks not only reflect the idea that central banks should have their own place in the financial heavens, but also the view that governments should play their part in a successful outcome by not distorting the workings of the financial markets and by not making themselves a special or exempt case in matters of financial discipline. Of the three, central banks, governments and the financial markets, the banking system is located within the latter. This is not to pretend that the banking system is not important, still less that it has disappeared (or should disappear, as some envisage). It is to reflect rather that it has become overshadowed by the globalisation of capital, a development that makes undue focus on the banking system anachronistic and one that has an important consequence for the 'traditional' concept of central banking.

And then, as regards the functions of central banking, the increasing focus on price stability brings into question the relevance of such roles as supervision and even lender of last resort. It is not unreasonable, therefore, to anticipate that some of them may fall away with the future evolution of central banking. It is certainly worth asking which functions could be placed elsewhere in order to have a sense of what is essential to central banking and what, therefore, may be expected to survive into the future.

Supervision, for example, is already being widely separated - conceptually if not institutionally. The case for separation has been put as follows by VISA President, H Robert Heller (1991): '[A] conflict may arise between regulatory and supervisory functions, on the one side, and monetary policy functions, on the other... [resulting] in an inflation rate higher than might be achieved by a truly independent central bank without supervisory responsibilities... By giving the major supervisory and regulatory responsibility to a banking agency, while focussing the responsibilities of an independent central bank on monetary policy and the supervision of liquidity, a possible conflict ... will be avoided and both national goals, the maintenance of a safe and sound financial system and an inflation-free environment may be realised.' (67) While not wholly convincing, and for Fischer 'the issue is not crucial',[90] it is nonetheless a 'live' one.

Banker to banks is undergoing a metamorphosis consonant with the increasing importance of credit creation by the financial markets and 'self-administered' banking consequent on the Internet.

Banker to government. To be radical, it follows from considerations of financial discipline that, while governments require the use of a bank, they do not need their own banks and if, in having them, they engage in money issue this should be done on a competitive basis. Giving the monopoly of issue to the agency most likely to abuse it is like guarding chickens with a fox.

Lender of last resort - a vexatious issue. Notwithstanding Goodhart's view, discussed in Section 3.2.1, that the provision of emergency liquidity is a proper function of the central bank, the lender of last resort role maintains a linkage between the central bank and government, which surely need no longer continue. It is also a moot point whether under globalised conditions the provision of emergency liquidity can be met nationally. If, for example, emergency liquidity were met by a globally operated bonding arrangement on the part of all financial institutions, the cost of it would not fall on the population

[90] The Future of Central Banking, op.cit., p.264, Footnote 5.

generally, many of whom may not be engaged in seeking reward for risk via the financial markets, but would be met by higher finance costs or losses on the part of those who were. This may not end the lender of last resort function on the part of the central bank, but convert it into one of orchestrating rather than providing the liquidity, as in the example of LTCM.

Though not all do, of course, if one accepts that the future of central banking rests on its role as the guardian of sound money, what is the appropriate context for this role today, and what form does it need to have?

In Section 3.2.1, Fischer's account of central bank independence was considered, in which he describes the 'appropriate' relationship between government and central banking in principal/agent terms. 'In this model, a principal (society) with well-defined goals has to design a contract that will motivate an agent (the central bank) to act in the principal's interests. In general, the agent has access to some information that the principal does not.' (291) In terms of auditorial central banking, this is interesting on two counts. Firstly, Fischer uses the word 'society' for the principal when normally one would find 'government'. Secondly, it highlights a division of labour between the right to make a decision and the fact that both an awareness of what goes into the decision, along with the practicalities of its implementation, are expert matters, albeit requiring accountability on the part of the agent, of course.

Both points relate to a key question for the ACB thesis: whether government need be the representative of society. Why could the central bank not be so directly - answerable to Parliament and properly accountable, but unmediated by government? After all, the prospect is not *technically* remote, as the consideration of Fischer's modern central bank charter made clear.

All these points seem to be consonant with auditorial central banking. Indeed, they are a partial spelling out of the concept – proof of its incipience, as also is Fischer's earlier noted recommendation of representation on the central bank board along the lines of the Banque de France's 'persons of recognised standing and professional experience in monetary, financial and economic matters.' (303) Moreover, even though Fischer advocates the maintenance of override provisions in order to balance out the power of the central bank and to provide an incentive to proper (that is inflation balancing, not deflationary) conduct, he makes no mention of the fact that such overrides, where they exist, as in Canada and New Zealand, for example, have never been used. Is this because they act by permanent deterrence, or because the central banker is quite able to conduct himself 'properly' without such measures? Are they in fact causal of his behaviour or merely fail-safe devices? Fischer himself notes that 'public reprimand and loss of reputation [are] sufficient sanction[s]', (302) but does not consider the possibility that, for reasons of the same psychology, autonomy begets responsibility (and vice versa). Fischer's approach comes primarily out of economics and its implementation is conceived by way of contractual concepts. Despite the merits of this perspective, the possibility of responsibility born of autonomy is worth pondering.

Two other points are of direct interest to the ACB analysis. Firstly, Fischer prefers the situation in which central banks consult with governments over interest rates, but do not await or depend on the

Government's agreement. Secondly, the management of government finance 'presents a conflict of interest of which [central banks] would best be rid.' (304) Both remarks point to a separation between government and central bank roles – a basic element of the ACB concept.

Finally, what Fischer says on the subject of interest and exchange rates is worth quoting in full. 'Monetary and exchange rate policies cannot be independent. Under floating rates, monetary policy affects the exchange rate. There is no other short-run policy that can affect the exchange rate. Thus the government cannot have control over exchange rate policy while the central bank has control over monetary policy. The government should have the authority to choose the exchange rate regime. If it chooses a fixed exchange rate regime, it has then essentially – though not completely – determined monetary policy.' (304) Conversely, presumably, if the government opts for a floating regime it vouchsafes monetary policy to the central bank. In this respect, as in many others, it is difficult not to see a certain affinity between Fischer's views on modern central banking and those underlying the auditorial central banking concept. The essential divergence concerns goal independence, which Fischer retains for government.

From the foregoing, it is difficult to escape the impression that auditorial central banking, though in some ways a radical concept, may yet have strong explanatory power as regards the present and future evolution of central banking. Of the alternative approaches to central banking, the avenue of free banking is seemingly *sans issue*, while alternative forms of monetary authority and monetary reformism are in fact subsets of central banking. Admittedly, auditorial central banking may only be a distant prospect and the term is unknown, but the idea is not foreign to the facts. The phenomenon may not be actual, but it certainly seems to be incipient.

3.3.2 Meanings of Independence

The degree to which auditorial central banking is incipient is illustrated by a study of central bank independence indicators. Needless to say, the literature on central bank independence indicators is extensive and variegated, so no attempt is made here to rehearse all the discussions in this field, to duplicate the work already so ably done by others, or to go over ground already covered in this dissertation. Nor is it the intention to make the case for central bank independence generally, which, again, has already been done by others. The phenomenon of central bank independence indicators is considered in order (a) to elucidate the issues that stand behind them and (b) to arrive by contrast at a more detailed definition of auditorial central banking.

Albeit unintentionally, the term central bank independence often gives a false impression, since the independence meant is usually by no means as wide and general as popular understanding of the word suggests. Noting it is 'a variable that is very difficult to quantify,' Fernandez de Lis points out that 'the concept is somewhat elusive [since] theoretical and legal autonomy may differ substantially from practical autonomy.' (7) He further draws attention to the fact that formal independence is not

synonymous with effective independence (20), and that there are many qualitative aspects which are difficult to capture in a quantitative analysis, such as 'the personalities of the central bank's top officials, their prestige and technical expertise, the informal relationships between the central bank and the government, its links with financial institutions and markets, etc.' (21) Cukierman (1992) also regards the quality of a central bank's research department as crucial but non-quantifiable.

'Independence' connotes the central bank in some measure standing apart from government, but the term can be divided into *goal* and *instrument* independence, meaning, after Grilli, Masciandaro and Tabellini (1991), respectively 'the capacity to choose the final goal of monetary policy, such as inflation or the level of economic activity [and] the capacity to choose the instruments with which to achieve these goals.'

Alesina (1989:83) deepens the sense of goal independence when he describes as 'completely independent' a central bank that sets all its own goals, a definition that reflects Maxfield's (1997) meaning of central bank independence as 'discretion over both goals and tools of monetary policy.' (20) This contrasts with Cukierman's (1992) definition of instrument independence as 'the development of an independent monetary policy to achieve the objective of price stability in the medium term', Cukierman, Webb and Neyapti's (1995) 'the independence to pursue the price stability objective, even at the cost of other objectives that may be more important to the political authorities,' and Capie, Goodhart and Schnadt's (1994:50) narrower definition of 'the right to change the key operational instrument (almost always a central short term money market rate) without consultation or challenge from government.'

Fernandez de Lis uses the word 'autonomy', which, in English at least, can have a deeper meaning. Whereas independence tends to infer independence from something or someone, with the independent entity being, therefore, a subset, autonomy implies an entity that exists in its own right and on an equal footing. This is the sense used in auditorial central banking. It includes the further dimension of double independence from both government and finance, a notion scarcely present in the central bank independence literature, but can be found as a consistent theme in central banking history in the remarks of Thornton, Churchill, Eccles, Martin and others, most recently Blinder (see Section 3.1.3).

It is in the light of this spectrum of meanings, that one can further identify what is meant by auditorial central banking, that is, independence from both government and finance. Generally, central bank independence describes the central bank as *secondary* to government, whereas auditorial central banking sees the central bank as a societal organ *alongside* government - equally responsible to parliament. In this, indeed, lies much of the novelty of this research into the presence or otherwise of auditorial central banking in modern history.

The importance of independence from finance was cogently argued by Blinder (1995), speaking as one familiar with both academic and hands-on experience of central banking. Invoking the image of Ulysses lashing himself to the mast, he reminds us of the importance of a long time horizon for the conception and conduct of monetary policy and therefore of the need to be insulated from short termism. He then

cites the three main influences from which a central banker needs to be immune in this respect – politicians, public opinion, and the financial markets. The first two come under the heading of governmental independence, whereas the need for distance from the financial markets is to avoid the temptation of '[delivering] the interest rate path that the markets have embedded in asset prices.' (55) This is important for three main reasons: the tendency of speculative markets to herdism, the need to avoid faddism and bubbles, and the short time horizon of traders, even those dealing in long term instruments. (60-62)

Bade and Parkin (1988) use a 1 - 4 scale to describe 'political independence' in the case of twelve industrialised countries, which Alesina (1988) extends to a further four countries. By this concept, central bank independence is the greater the more the following criteria are met:

- the central bank is at arm's length from the executive

- minimal presence and role of government officials on the board

- the nomination/dismissal of the head of the central bank is not in the gift of government

- there is low frequency of contacts with the executive.

The classification of Bade and Parkin and Alesina is enhanced by Grilli, Masciandaro and Tabellini, who further distinguish between political and economic independence as follows:

Political independence entails three aspects:

- the appointment procedures for central bank officials

- the relationship between the central bank and government

- the formal responsibilities of the central bank.

meaning the bank's political independence is the greater

- the more the bank is able to select policy objectives without government interference

- the more the appointment of its head is not in the gift of the government of the day

- the more his length of tenure is out of sync with the electoral cycle

- the fewer the number or lesser the influence of government representatives on the board

- the more its actions do not require government sanction

- the greater the prominence of price stability in monetary policy implementation.

Economic independence has two sides:

- the nature of the monetary instruments under the central bank's control

- government influence on its borrowings from the central bank.

meaning the bank's economic independence is the greater

- the more the bank is able to implement monetary policy without government restriction in general
- when in particular it is not required to finance government debt.

3.3.3 The Apolitical Dimension (Pointers to Auditorial Central Banking)

Having considered the meanings of central bank independence, this section locates the ACB concept in the wider political context of modern economic life, especially its management to political ends. Clear pointers to auditorial central banking can be found in the extensive literature concerning the intertwining of politics and economics. In the mid 1970s, Nordhaus (1975) spoke of a 'political business cycle', that is to say, of a business cycle not having its origins in economic developments per se, but in manipulation of the economy for electoral purposes, such as when a government curries favour with the electorate through credit easing. This distinction between political and business cycles has also been explored by Alesina (1989) and others. Hibbs (1977) introduced 'partisan theory' to explain the alignments of the Left with high inflation and low unemployment and the Right with the reverse. This approach was modified to 'rational partisan theory' by Alesina (1987), noting that '[t]he rational partisan theory differs in an important way from Hibb's approach. In the latter, differences of output and unemployment persist and actually increase throughout the entire term of office of different governments. In contrast, rational partisan theory predicts that such differences are transitory and should occur immediately after the change of government. Both views do, however, share an emphasis on the difference between left-wing expansionary parties and right-wing anti-inflationary parties.' (63)

The theme of economics dancing attendance on politics is neither new nor passé, therefore. As far back as 1957, Downs drew attention to the way in which politicians, quite apart from their party allegiances, were partisan in regard to their own interest in staying in office and enjoying their status. Today, to take an example of relevance to this research, the continuing prevalence of the theme can be seen in the common ground between Britain's Labour and Conservative Parties over the future of the Bank of England (Section 6.4). Neither party envisages or promotes central bank autonomy in the wider sense, concurring instead on instrument or operational independence - and that in a context of heavy government influence.

The idea – central to the concept of auditorial central banking - that political and economic considerations are not identical and should be kept distinct is neither new nor unheard of, therefore. Moreover, it is related to another thought, namely, that economic life should be conducted apolitically and according to its own logic, and that we need somehow to go beyond the plausible but dubious Left-Right, labour versus capital, class analysis that renders modern economic life subject to dualism and disguises its true nature, which can perhaps be better characterised as universal and universalising.

Once we have grasped the idea that economic life is universal and neutral, our perception of modern economic history can change very rapidly. For example, it becomes possible to speak of the population as a whole being inflation averse. In the field of monetary policy, this was the main difference often highlighted between the British and the Germans. If low inflation were to become a legitimate goal of economic policy, it would have to become part of a cross-party culture. The seamlessness of the Bundesbank and the German people would have to be replicated. Posen (1993, 1995) might argue that central bank independence only arises naturally in an inflation-averse population or when it is imposed by a strong financial sector, but, as the case of New Zealand may suggest, whatever the means whereby it is brought about, once the fruits of price stability have been tasted, inflation aversion can become the norm for society generally. The reality, in other words, is probably chicken-egg, the causation two-way.

3.3.4 Auditorial Central Banking and Some Underlying Trends

Auditorial central banking is not an entirely new concept, so much as the naming or making explicit of a phenomenon that otherwise exists only in an unspoken way. As such it reflects some important underlying trends.

For example, although central bank independence has enjoyed considerable ascendancy since the end of Bretton Woods, it is not without critics. Alesina (1989:82-3) points out three particular difficulties. Firstly, that it can never be purely apolitical. Even if the central bank enjoys goal independence, its head will be susceptible to political pressures, albeit indirectly applied. Indeed, not even pressures. He may 'suck' such influences to him by his own attitudes and concerns, such as a desire to remain in office because of its trappings or the prospects such a position gives for subsequent employment in the financial sector (Alesina, Roubini and Cohen, 1997). This problem is also usefully discussed by Vaubel (1996) and Blinder (1995).

But this is to see central bank independence in the sense of the central bank as an agent of government, which raises a key issue for understanding auditorial central banking. Given that the distinction has been made between the political and the economic, between the government and the central bank, how should they be related? In particular, should the central bank be granted the autonomy to operate according to its own logic and, by extension, be allowed to develop its own voice? Insofar as it envisages economic life being managed in an apolitical manner, auditorial central banking is predicated on the latter.

From this point of view, there is a different sense of political, which does not mean under the partisan influence of the government of the day, but sensitive to and representative of public opinion, as was the intention – and generally the outcome – with the Bundesbank. As Alesina, Roubini and Cohen put it, 'a critical point ... is the trade-off between independence and accountability. On the one hand, one would want a central bank insulated from day-to-day partisan and opportunistic influences; on the other hand, monetary authorities cannot be totally detached and impenetrable to society's preferences.' (225) This kind of political influence is not untoward in an apolitical economic view. Indeed, it is arguably a

requirement of a central banker that he should in some way embody such sensitivity. He may be there to take the punch bowl away, as Greenspan once said, rewording similar remarks by Keynes and Martin before him,[91] or because the citizens prefer to keep the punch flowing and thus need an 'enlightened prince'[92] or Rogoffian conservative central banker to override their immaturity, but he is required to have a watchful eye on both inflation and employment levels. As Lord Kingsdown put it, there would be no point in pursuing zero inflation if it caused riots in the streets.[93] In terms of auditorial central banking - that is, when one's concern is with systemicity - this is precisely what should animate the central banker. One cannot pretend that this addresses the central banker's self-interest, but this problem cannot be ruled out in any scenario. The question is whether the auditorial (or any other) context of the central banker encourages or discourages it.

In this connection, auditorial central banking does not assume that central bankers are paragons of behavioural virtue, but nor does it share the somewhat negative presumptions about central bankers that are often found in the literature on independent central banking, with its extensive use of terms such as 'inducement', 'incentive', 'punishment and reward'. All these suggest that the central banker is less able to conduct himself properly than, presumably, a politician or an economist. It is never made clear why this should be, however. In contrast, the presumption of auditorial central banking is that the central banker - much like a judge or indeed an economist, but perhaps not a politician - is able to conduct himself in a professional and indeed moral manner. That is, he is able to make his point of view that of the systemicity of economic life, rather than his own interests or private concerns. It is, indeed, a hallmark of auditorial central banking that the interests of the central banker are those of the systemic well being of the economy as a whole. He will practice his craft as ably as he can and there is no denying that competence is an important consideration, but under auditorial central banking no assumption of perfect behaviour is made. Nor is it suggested that rules can obviate this problem, although they can do much to 'control' it.

Even the principal-agent concept can only mitigate this problem, not eradicate it. While, similarly, the rules vs. discretion discussion generally looks different under auditorial central banking, which reckons on a mix of the two - a mix, that is, of the scientific and the artistic - in the central banker's judgement. This is not a radical thought. It was perhaps in this sense that Eddie George, Governor of the Bank of England, recently said that monetary control in its present form 'is a kind of art, not a science; it is an art which can be more or less carefully crafted but an art it is, nevertheless.'[94] More technically, auditorial central banking tends to align with Alesina (1989): 'institutional design ... should target the optimal point on the trade-off between rigid rules and discretion.' (82) If a rule is used, this would need to be simple,

[91] 'Keynes once said that the perfect standard of good manners for a gentlemen attending a party is to maintain precisely the same level of sobriety or inebriety as the rest of the company. If this is so, then central bankers cannot aspire to be gentlemen. Their role, as Chairman Martin has said, is rather to the unpopular one of acting as the chaperone who has to take away the stimulant just when the party is getting into high gear.' In a lecture by Louis Rasminsky (1966).

[92] An image used by Francisco Gros, twice president of the Banco Central do Brasil, when interviewed for this research.

[93] Interviewed by the author in 1996 in the course of making a University of Sussex video documentary on the Bank of England, entitled 'Dogs may bark...'

[94] Answer to Q54, Minutes of Evidence of the House of Commons SCT, 23 February 1999.

with auditorial central banking arguing, with Alesina, Roubini and Cohen, for 'the unique and obvious choice [of setting] the inflation target at the optimal level...' (215) It is worth recording that Alesina, citing Kydland and Prescott (1977) and Barro and Gordon (1983), says that the call for monetary policy rules has been occasioned by the perception that 'governments have an inherent tendency to misuse or overuse the instruments at their disposal.' (82) Governments, note, not central bankers. Why, therefore, should the same argument be made against central bankers when independent of government, let alone acting auditorially? Why should the government of the day be more responsible than the judiciary, central bankers, or any other professional concerned with society's overall well being?

A second difficulty identified by Alesina is that central bank independence can lead to a lack of co-ordination between monetary policy and fiscal policy. But this concern is based on the view that the way a government conducts itself financially should be different to that of, say, the corporate world. Auditorial central banking does not have this view. In its own workings, and as an expectation on government, it shares the same financial approach as business in being responsible for its own actions, above all, for its own debt burden. Gordon Brown, the UK's Labour Party Chancellor has often emphasised his intention to adhere to the 'golden rule', whereby '[o]ver the economic cycle, the government will borrow only to invest and not to fund current spending.'[95] If the central bank carries out its own activity in a 'corporate' modality, and if similar constraints apply to the government, monetary and fiscal policy should not be in conflict. Conflict will arise, however, if the government seeks to manipulate the economy towards an objective that contradicts price stability, although strictly speaking this is not a conflict between monetary and fiscal policy, but between corporate and statist modalities of financial conduct.[96]

Thirdly, Alesina argues that central bank independence can engender a democratic deficit. This rests on the view that for something to be democratic it must be so by grace of an electoral process in which the majority view has prevailed. But this refers to democratic processes as regards electoral procedure. Insofar as it achieves it, the seamlessness of the Bundesbank's policies with the expectations of the German people is no less democratic, but it is a democratic process of a different nature – an argument rehearsed by Tietmeyer (1998). Central bank independence per se does not entail a democratic deficit. It may do so if the central bank is detached from the populace, such as may prove to be the case with the European Central Bank, which is a central bank without, as yet, a state. But the real issue is to recognise that the democratic imperative, which has undeniable central importance in our times, is not only met by electoral processes based on majority voting.[97] Indeed, given the frequently low turn out on which they are based, these may be said to be among the least sophisticated means of achieving a democratic outcome! Because it is answerable to parliament, the auditorial central bank is in no sense democratically unaccountable. On the contrary, its accountability is greater because it is more in tune with the nature of its work.

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[95] Analysing Fiscal Policy, HM Treasury, November 1999.

[96] It is worth noting in this connection that when the RNZ was made independent, the New Zealand government was put onto an accrual accounting basis and that of late similar changes are afoot in the UK.

[97] See remarks by Paul Volcker to this end in Section 5.3.3.

3.3.5 Further Considerations

The discussion to date does not overlook the political and practical obstacles to any implementation of auditorial central banking as a policy-driven development. Nor is that an expectation behind this research. In the same vein, no claim is being made or proof offered that auditorial central banking is more or less inflation averse than central bank independence, or that it has a better or worse impact on macro-economic performance. Just as Alesina and Summers (1993:159) argue that the macro-economic effect of central bank independence is neutral,[98] the same is assumed for auditorial central banking. Indeed, the concept of auditorial central banking places no reliance on better economic performance. The 'case' for auditorial central banking is that it is an appropriate social structural and, therefore, political response to the emancipation of financial markets. That said, and although he does 'not exclude some role for reverse causality, or some interplay between the two,' Alesina asserts that 'causality [runs] primarily from political stability to economic stability.' (80) He is supported in this by Grilli, Masciandaro and Tabellini, who state that 'the main direction of causation runs from the political system to economic policies, and not vice versa.' (1991:350) Insofar, therefore, as auditorial central banking is a political proposal that aims to neutralise partisan behaviour, these remarks suggest that its influence on economic life would be stabilising at the very least. Better put, auditorial central banking belongs to, rather than causes, a stable economic environment.

Enough has been said to determine the outline of auditorial central banking as a modern social phenomenon.[99] Before moving on to detail its characteristics and to model it, some design precepts are worth noting. If, as Alesina, Roubini and Cohen claim, '[i]n reality, central banks, not politicians, control monetary policy,' (211) then considerable importance attaches to the role conceived for auditorial central banking today. As already noted, the auditorial central bank is autonomous of government. Indeed, in a sense it is above government (but not parliament!) since its remit is to maintain systemic economic health. When it comes to designing such an organisation, one is reminded of Persson and Tabellini's (1993) remark that '...the framer of monetary institutions is society at large.' (280). Although they do not make clear by whom and in accordance with which values society's preferences are expressed, it can perhaps be taken as read that society as a whole benefits from and therefore appreciates stable economic conditions. If Rogoff's 'conservative central banker' argument is to be believed, the citizens may be unable to create such conditions of their own accord, but one can reasonably assume that these conditions are welcomed if as a consequence economic life is conducted in an apolitical, non-partisan manner - serving, that is, the interests of all, not just some.

Indeed, most of the defining characteristics of central bank independence already considered in this review take this as their given. In this way, after Alesina, Roubini and Cohen, they 'take into account that

[98] '...central bank independence reduces the level and variability of inflation but does not have either large benefits or costs in terms of real macroeconomic performance.'

[99] In discussion, the Bank of Finland's economics research team suggested that the substance of auditorial central banking might well be that of a contestable monopoly, after Baumol, et. al. (Contestable Markets and the Theory of Industry Structure, Harcourt Brace 1982.)

institutions operate in a world of partisan and opportunistic politicians, not in a world of social planners,' (212) and thus place considerable emphasis on countering partisan or subjective behaviour. Since this is already evident in the way central bank independence has been modelled, it holds good also for auditorial central banking.

Detailed classification of auditorial central banking is provided in Chapter 4.

4: THE ACB MODEL

As mentioned in Section 2.3, a particular device of this research is the construction of a model - that is, a list of features (variables) represents an auditorial central bank. Derived from a thorough review of current thinking, the model provides the means to assess Proposition 1 (that auditorial central banking 'explains' the way that central banking is responding to the globalisation of modern economic life) by deducing the consequences of the ACB hypothesis, were it true, and investigating specific cases to see if they support it or not.

The model has two aspects - one structural, comprising constitutional, institutional, and operational features, the other an accounting template detailing the income and expenditure statements and balance sheets of an auditorial central bank. The model represents a distillation of the thinking to date on central bank independence and related issues from the auditorial central banking perspective and serves as a device through which to analyse the structure and accounts of the cases studied.

4.1 Structure (Constitutional, Institutional, and Operational Features)

The general considerations that underlie the structural aspects are rehearsed in Section 3.3 of the topic survey. The model was developed in three stages: the thinking to date was 'captured' in a list of 22 central bank independence features (Section 4.1.1), which was then elaborated in ACB terms (Section 4.1.2) with such further observations as seemed necessary. Although comprehensive, the resulting list of 77 features was unmanageable, so a streamlined version was produced (4.1.3).

4.1.1 Features of Central Bank Independence (per Fernandez de Lis)

The organisation of the material in this way was prompted by Fernandez de Lis (1996), whose classification of central bank indices provided a springboard for the considerations presented here. His research provides a synthesis as at 1996 of the central bank independence literature as it developed during the 1980s and early 1990s, although the periods under study are generally post World War II. His work is summarised in Chart 4.1, detailing twenty-two 'features' subdivided into five main areas, many of which were introduced in Section 3.3. The sub-headings have been added.

Presenting the various interpretations of central bank independence in this overall manner was not without problems. It was not always easy to see where or how the different definitions reviewed by Fernandez de Lis appear in his classification. He seems to have reshuffled the pack, so to speak, so that, for example, political independence is not directly present as a concept, while economic independence includes elements which could better be headed financial independence. One can also have the feeling

that the benefit of the overall view has incurred a cost in terms of simplification. Lastly, the organising concept used to order the features is not always clear. None of these considerations detract, however, from the great value of listing so wide a range of central bank independence characteristics, and the provocation it provides to take the discussion further. To this end, in Section 4.1.3 Fernandez de Lis's list has been elaborated but also reordered in terms of auditorial central banking and then used as a 'control' on the features of the case studies. (The features are numerically coded for ease of cross reference.)

Chart 4.1: Features of Central Bank Independence (per Fernandez de Lis)

Functional Dependence and Attribution of Responsibilities

1. Formal dependence of central bank
2. Formal assignment of responsibility to develop monetary policy
3. Formal assignment of responsibility to implement monetary policy
4. Provisions for conflict resolution
5. Statutory objectives
6. Democratic accountability and supervision of monetary policy
7. Mechanisms for reform of legislation governing the central bank

Governing Bodies

8. Composition of governing bodies
9. Election of top officials
10. Mandate of top officials
11. Renewal of mandates
12. Dismissal of top officials

Economic Independence

13. Limits on government financing
14. Budgetary independence
15. Distribution of profits

Other (non monetary policy) Functions

16. Banking supervision

17(a) Setting exchange rate policy
17(b) Implementing exchange rate policy

Other functions

18(a) banker of government (also 13)
18(b) currency issuer
18(c) bankers' bank and lender of last resort
18(d) payments system and organisation of markets
18(e) intervention in ailing financial institutions
18(f) centralised credit reporting
18(g) statistics and central balance sheet office
18(h) consumer protection in finance
18(i) regulatory powers (increase autonomy)

Other Considerations

19. Transparency (including public communication)
20. Central bank ownership
21. Limits in use of monetary policy instruments
22. Independence in public statements

4.1.2 Modelling Auditorial Central Banking

Before proceeding to Section 4.1.3, it is important to make explicit the reasoning that underwrites the main aspects of this elaboration and reordering. The classification has three main aspects – constitutional, institutional, and operational. 'Constitutional' covers the way the central bank is located in society as a whole - its relationship to government, its democratic accountability, and the general purposes it serves. 'Institutional' deals with the way in which the central bank is organised - the kind of institution it is, who it represents, and how it is governed. 'Operational' refers to how the central bank carries out its functions. The exercise is very much a first attempt at systematic description of auditorial central banking - an outline requiring further elaboration and sophistication. (Concerning the numbering, see Chart 4.2.)

1000 Constitutional

As detailed in the topic survey, under auditorial central banking, the role of the central bank is refined and reduced to three main and related tasks: monetary policy, research and analysis, and financial stability (see Sketch 1.1). In its constitutional aspect, certain criteria govern the way in which the auditorial central bank fulfils its triple mandate.

1100 Societal Agent

Under auditorial central banking the central bank is a societal agent in its own right, mandated by and reporting directly to parliament (or its equivalent). The main purpose of the mandate is to spell out in constitutional and legislative terms what the central bank is responsible for and to ensure its autonomy both from the government of the day and financial institutions. The legislative context also sets out how the bank's mandate is to be reviewed and revised and how conflicts are to be resolved.

1200 Democratic Accountability

The bank operates in a context of democratic accountability. Not, however, by way of electoral procedures, but by acting in a clear and transparent manner, and by reporting to parliament in clear, regular, and meaningful ways that are subject to public audit. Its ability to work in this way is strengthened by complete freedom in terms of when, how, and what it communicates, provided its transparency and reporting requirements are enhanced thereby.

1300 Conceptual Guidelines

In keeping with a clear demarcation between political and economic considerations, the central bank is essentially charged with supporting the even operation and well-being of the economy as a whole, for which the term 'systemicity' is used. The essential concept here, after Grilli, Masciandaro and Tabellini (1991), is the promotion of a stable level of economic activity through the maintenance of price stability.

The auditorial central bank is conceived much as Keynes spoke of the 'controlling authority', standing 'above the fray' and functioning on the assumption of the neutrality of money.

2000 Institutional

The institutional aspect concerns the way in which the auditorial central bank is organised, governed, and financed as an institution so as to reinforce its constitutional and operational aspects.

2100 Type of Organisation / Ownership and Control

Qua organisation, the auditorial central bank is a limited company, but of a particular kind. Its ownership is vested in a public benefit context (for example, a trust that enshrines its parliamentary mandate), so that the providers of its capital may not alter, override, or usurp its tasks to their own ends. In such a context, its management is expected to act in an autonomous manner – autonomous of both untoward *external* influences, such as inappropriate relaxation of price stability, and untoward *internal* influences, in the sense of unprofessional conduct or aiming at anything less than systemicity. The Executive Board is there to assist the governor in the forming and making of judgements, which, as noted earlier, is his pivotal role.[100]

2200 Finance

The purpose of the company is to fulfil the mandate of the central bank. In line with the notion of universalised accounting,[101] the central bank as a business is required to operate profitably with profit distribution to shareholders in the normal way. This does not present a problem since in the context outlined above shareholders cannot use their money to determine central bank policy. The profits on operating are the result of income in excess of expenditure, with the sources of income being tied to the fulfilment of the Bank's tasks. To avoid conflicts of interest, all other sources are disallowed. The auditorial central bank derives its income from services it provides, not from the money that flows through it. Key concepts are 'priced services' and, after Baumol, 'contestable monopoly'.

In this spirit, the central bank qua business is required to be responsible for its own budget and debt burden and to apply to itself the same viability requirements it expects of financial institutions and governmental organisations. In this context, with the exception of any controlling shares, the capital of the bank can be entirely private, as is the case in the Swiss central bank and, until recently, a substantial part of the BIS.

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[100] An interesting question is whether it is the board assisting the governor, or the board as such that is or should be the locus of central bank judgement and responsibility, although to attempt a response would take us too far. Blinder (1995) addresses this point in his discussion of the workings of the Federal Reserve committee. Mahadeva and Sterne (2000) also discuss this.

[101] See Section 3.1.10 and this section, subsection 3501.

Two important aspects merit particular attention – monetary base control and seignorage, discussed in Sections 3.1.8 and 3.1.9. Although the auditorial central bank disciplines its balance sheet and refrains from manufacturing liabilities, it does not practice monetary base control because the latter is deemed inapt to the bank's virtual financial environment. As regards seignorage, in keeping with the idea that the auditorial central bank operates neutrally to the financial flows it 'audits', while on a residual basis, it might manage currency issue on behalf of the economy and generate a fee income for this purpose, the related seignorage would not belong to the bank. To the extent that public money issue continued, seignorage would either be located in some kind of commission (which could be a 'privatised' issue department), where its use is clear to and of benefit to all, or else currency issue would be managed to achieve zero seignorage, thus removing what is effectively a tax.

2300 Governance

In the same way that the institutional aspect of the central bank must reinforce its constitutional and operational aspects, so the governance of the central bank must reinforce its organisational and financial aspects. Although the presence of an Overview Council to monitor the Executive Board's performance is desirable, appropriate governance is primarily a matter of board composition. Since the organisational and financial design of the bank is intended to provide a locus in society for the maintenance of healthy systemicity (i.e. generally stable economic conditions), while the board[102] is autonomous in regard to its assessment and discharge of its responsibilities, it is fully accountable not only to its shareholders, but also to parliament. Autonomy in this sense does not mean acting unto oneself, but acting independently yet on behalf of society as a whole.

The autonomy of the board entails two main features. Its composition includes clear and meaningful sectoral representation from the economy as a whole, and its governor is appointed by the board (he may be from outside) not only because of his expertise and readiness to take decisions, but also his ability to synthesise and co-ordinate various interests. The board will, of course, include, co-opt, or work in liaison with such experts as its tasks determine, and it will include, perhaps ex officio, its main executive officers. The government and the financial sector have representatives in accordance with their sectoral significance.

The company elects its board and hires and fires its directors in the normal way, that is, requiring the approval of the shareholders at an AGM. Appointment and dismissal procedures are designed to ensure insulation from the subversion of the Bank's tasks by political and financial interests. This may or may not require tenure out of sync with electoral cycles and it may or may not require 'contract performance' along the New Zealand lines, the real effect of which is a moot point (Blinder 1995). The board works to maintain the state of the economy in constant review, based on up-to-date and meaningful information flows and high-quality analysis. Providing an informed environment for judgement making is thus a key role of the central bank's research department.

[102] Or the governor.

3000 Operational

The overall objective of systemicity leads to specific lists of what are and what are not the functions of an auditorial central bank, all of which – as outlined earlier - derive from its primary responsibility - the formulation and implementation of monetary policy (goal and instrument independence), which it is free to discharge as it sees fit. All other functions of the auditorial central bank are added (or not added) as they support (or conflict with) its main task. In this process, of course, the economic role of government is redefined and considerably reduced, as are the functions on the side of financial institutions.

3100 Non-functions on Side of Government

On the side of government, the first consideration concerns the co-ordination of monetary and fiscal policy. As already noted, under auditorial central banking, this problem is not addressed by monetary policy being seconded to fiscal policy, but by the government itself conducting its affairs in a corporate manner, as in New Zealand. This means, however, that certain functions fall away from the central bank. The auditorial central bank does not act as banker to the government, since the government is assumed to be responsible for its own debt burden and the management of it – as with any other organisation.[103] The government, in other words, cannot use the auditorial central bank to print money. At its simplest, the government only has future taxation (excluding the inflation tax) as the surety for its bonds. Any debt must be managed within the constraints of this revenue stream. Auditorial central banking does not create moral hazard on the part of government.

3200 Non-functions on Side of Finance

The same principle holds on the side of financial institutions, where the auditorial central bank is 'fire-walled' from functions that conflict with its primary purpose or which engender moral hazard. Financial institutions and individuals generally are expected to attend to their own affairs and not to look to or implicate the central bank in potential, let alone actual, bailouts.[104] To this end, the auditorial central bank has considerable affinity with certain free banking concepts. Its involvement in the banking system is limited to what is necessary to keep it apprised of what is happening. To the degree that consumer protection is warranted in general terms, financial institutions are expected to maintain their own bond scheme. Consumer protection, banking supervision, and the support of ailing financial institutions are therefore outside the remit of the auditorial central bank.

3300 Monetary Policy

Under auditorial central banking, monetary policy has two main aspects: internal (inflation) policy - price stability - and external (exchange rate) policy - purchasing power parity in a context of *universally* floating exchange rates. The auditorial central bank's primary instrument for internal monetary policy is

[103] This is the converse, of course, of Pepper and Oliver's view that debt management is a necessary adjunct of monetary base control.

adjustment of the short-term interest rate (instrumental independence). For external, it is leaving the exchange rate to float or, in the absence of universal floating, judging the exchange rate that best approximates this condition. The auditorial central bank thus both sets and implements exchange rate policy, much as Fischer suggests: '...within a flexible exchange rate system, if the central bank has the right to determine interest rates, it will also have the right to determine the exchange rate.' (1995:203)

3400 Research and Analysis

The nature of central bank independence and virtual finance requires the auditorial central bank to have a strong research and informational side, which constantly receives, assesses, and analyses the statistical, accounting, and other information flowing to it. The purpose and focus of this research is to brief the board and the governor of the central bank in their essential task of weighing up the views of all sectors of the economy in order to make a judgement of their own. It is in this sense that one can envisage the central bank operating with the kind of autonomy enjoyed by the judiciary, alluded to by Capie et al., McChesney Martin, and others, but in this case because of their expertise in economic management. As Lord Kingsdown once put it, the central bank needs 'to retain its independence in judgement [in order] to form its own views in a responsible and reliable fashion'.[105]

In the case of the BIS, for example, the findings of the Monetary and Economics Department play a crucial role in the board's deliberations. The same is true of those central banks which have moved toward central bank independence where monetary policy deliberations are embedded in information flows.

Key examples of work done in this connection are centralised credit reporting, statistics collection, trade and production information, data analysis, risk management and the use of indicators, models and forecasts.

3500 Financial Stability

To avoid undermining monetary policy, auditorial central banking naturally has an eye to financial stability. In doing so, however, it places emphasises on inherent or endogenous regulatory means rather than external controls. Three areas are of particular importance in this regard - inherent regulation, international cooperation, and the lender-of-last-resort-function – and deserve detailed commentary.

3501 Inherent Regulation (Universal Accounting)

The globalisation and increasing electronification of finance has a direct and profound impact on the banking system, predicated as it is on 'physical' money flows. Locating the monetary authority as a bank in the midst of these flows makes sense as long as such flows and the banking system generally continue

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[104] Thus obviating the lender of last resort role.
[105] Interviewed in 'Dogs may bark...', op. cit.

to have importance. But to the degree that money flows develop an informational or, more precisely, bookkeeping character, the monetary authority needs to match this development by transposing its money- and bank-managing role into an auditorial one. It is in this sense that auditorial central banking is understood as the appropriate response to an increasingly global, virtual, and non-bank financial system.

In terms of auditorial central banking, the concept of a regulatory power is perhaps best understood in the sense of a reporting requirement. It requires the regulatee to present to its stakeholders an account of its actions, the reasons for them, and future proposals. Auditing is based on such reporting requirements. They must be clear, objective, and meaningful because they need to show an outside observer what is taking place internally. The informational flows to a central bank are in this sense auditorial. This means, however, that an auditorial central bank cannot act in an interventionist manner, for the same reasons that an auditor cannot use his own resources to balance the books of a client. Linked to this is the assumption that all actors in the economy – including government and the central bank itself – operate in corporate accounting modality. This means two things: all actors in economic life need to (1) identify their role, generate a profit in fulfilling this role, and manage their own borrowings, and (2) avoid informational discrepancies by using the same accounting language. (This is the ACB concept of 'inherent regulation' discussed in Section 3.1.10.)

3502 International Co-operation

While the auditorial central bank operates apolitically, it nevertheless acts in the best interests of the economy it represents. This does not necessarily mean acting in competitive mode, so much as out of a sense of global economic partnership, or, to put it in more usual language, internationally co-ordinated monetary policy. Although he spoke some twenty years ago, Gordon Richardson (1979:16), when Governor of the Bank of England, said 'we should see that our best hopes of success are to accept, indeed to develop collaborative arrangements.' Notwithstanding the difficulty in bringing it about, international collaboration in the field of monetary policy should not be deemed irrelevant. It is a clear concomitant of a globalised economy, witness the Labour Party's (1995:17) statement that '[t]rue national sovereignty will involve a sharing of sovereignty within the realities of the international economy' – although in auditorial central banking terms one should distinguish between the maintenance of *political* sovereignty and the sharing of *economic* sovereignty. Indeed, the widespread assumption that central banks should become independent and give prominence to price stability makes no sense other than as a homogenous – i.e. shared – approach. The more global the economy becomes, the more similar will be the approach to finance, with national differences giving way to international similarity and channels of communication becoming reversed. As Mervyn King (unpublished 2000) notes, there was a time when 'the traditional channel for conveying City opinion to the government was through the Governor of the Bank of England…[but] this pattern of representation changed due to the internationalisation of financial services which led to the decline of 'esoteric politics'.'[106]

[106] In the process, decision-making becomes as subject to 'exit voting' by shareholders as to traditional electoral procedures – see M R King (2000) 'New Lady of Threadneedle Street. Central Banking Quarterly, XI (4): 82-91.

3503 Lender of Last Resort

In auditorial central banking terms, the lender-of-last-resort role is problematical because it relies on the central bank being the monopoly issuer of liquidity and related legal tender provisions. If money issue is placed in a commission or, more importantly, goes virtual, how can a domestic money issuer be a match for global capital markets? At best, as in New Zealand, it can play the legal tender card, but this inhibits rather than prevents currency substitution and it does not stop the potential pressure for the latter to occur. On the other hand, if the government and financial institutions alike are made responsible for their deficits and debt burdens, and if bank-issued money, legal tender monopoly, and, indeed, currency issue have reducing relevance, the lender-of-last-resort function is likely to atrophy. While it may remain a function of the auditorial central bank, therefore, it will be a residual one. Liquidity provision, even in emergency, could as easily be provided by a bond scheme among banks – a preventive discipline that would obviate the scrambling necessitated in the case of LTCM, for example.[107]

4.1.3 Features of Auditorial Central Banking

The foregoing deliberations resulted in an unmanageable list of 77 features (see Appendix 9), which is here shortened to 37. The organisation of the list reflects certain refinements unique to this research and intended to extend yet remain consistent with the logic of central bank independence:

The auditorial central banking model distinguishes between ownership, capitalisation, and management in such a way that the overall purpose is determined at the societal level, capitalisation and returns to capital are properly and appropriately rewarded, and management has the unequivocal responsibility to fulfil the organisation's task, both in terms of the services it provides (monetary policy, research and analysis, and financial stability) and its own profitable operation.

It would be too great a digression to give the conceptual underpinnings of this refinement, except to say that the aim is to make of the central bank a 'glass box' – an organisation whose tasks, manner of operating, and decision-making processes are transparent to the community it serves. The concept was prompted in part by visits to the RNZ, which seems to have such a policy in its management, but also in the architecture of glass-walling its previously closed-in offices.

To reinforce these precepts: a) the ownership (majority control) of the central bank is vested in a public benefit body in such a way that its aim or mission is determined neither by the provider(s) of its capital nor by its management; b) the capitalisation of the central bank is subject to a strategy that guarantees that investors in the central bank are entitled to pecuniary rights such as dividends, but not to alter or cause alteration in the purpose of the central bank; and c) the management of the central bank functions in a transparent way and maintains a clear and public record of decisions taken and the manner of their taking, in order that the management may be autonomous in the professional discharge of its responsibilities. The

[107] For a fuller discussion of the LOLR concept, see Appendix 8 and Section 4.2.1: Concerning Liquidity.

management has a twin aspect – an Executive Board to manage the central bank on a day-to-day basis, and an Overview Council to monitor the central bank's performance.

These somewhat general concepts, borrowed in part from conventional corporate arrangements, underly the classification of ACB features and guide the manner in which the structures of the cases are analysed.

Chart 4.2: Features of Auditorial Central Banking

(Numbers in square brackets from Fernandez de Lis.)

1000 CONSTITUTIONAL

1100 Societal Agent
1101 In its own right, by act of parliament (or equivalent) [1]
1102 Legislative mandate
1103 Main central bank purpose(s) [5]
1104 Independent of government and financial interests ('above the fray')

1200 Democratic Accountability
1202 Transparency in finance and decision-making [19]
1203 Freedom in communication [22]
1204 Reporting to (and audited by) parliament

1300 Conceptual Guidelines
1301 Distinguishing between political and economic

2000 INSTITUTIONAL

2100 Type of Organisation / Ownership and Control
2101 Limited company
2102 Controlled by trust-mandate [20]

2200 Finance
2201 Capitalisation
2202 Distribution of profits [15]
2203 Source of profits
2204 Sources of income from fulfilment of tasks
2205 Seigniorage
2205 Currency issue [18b]
2206 Responsible for own budget and debt burden [14]

2300 Governance
2301 Overview Council
2302 Composition and appointment of board [8]
Presence / influence of government representatives [8]
Appointment / dismissal of Bank head [9] [12]
2303 Tenure out of sync with electoral cycle

3000 OPERATIONAL

3100 Non-functions on Side of Government

3101 Banker to government [18a]
3102 Cover and management of government debt
3103 Limits on government finance [13]
3104 Privatised public account operations

3200 Non-functions on Side of Finance
3201 Consumer protection in finance [18h]
3203 Banking supervision [16]
3204 Banker to banks [18c]

3300 Monetary Policy
3301 Formulation of monetary policy (Goal Independence) [21] [2]
3302 Implementation of monetary policy (Instrument independence) [3]
3303 Internal - price stability prominent via short-term interest rate
3304 External Policy - purchasing power parity via exchange rate setting (via universal float or judged approximation) [17a] and exchange rate implementation [17b]

3400 Research

3500 Financial Stability
3501 Inherent regulation [18i]
3502 International Collaboration
3503 Lender of last resort

4.2 Accounts (Income and Expenditure Statements and Balance Sheet)

4.2.1 General Considerations

Having detailed the structural aspect of the auditorial central bank in Section 4.1, and relying on the picture built up so far, this section focuses on the way in which the auditorial central bank keeps its accounts.

Within the reference terms of this dissertation with its absence of quantitative methodology, the findings of the research in this respect are deemed 'hard' information, not in the sense of econometrics or positivist methodology, but because, when taken to the level of accounts, one discovers if the ACB theorem is realisable in the 'real' world, and to what extent current practice comports with the concept.

This approach is not a subterfuge or an excuse for avoiding analytical discipline. The way in which central banks relate to money, both conceptually and in practice, is made explicit in their accounts, while the pressures on them to be meaningfully transparent, combined with today's increasing public scrutiny, both lay and professional, continually reduce the scope for unclear or disinformative accounting. In Chapter 1, for example, mention was made of Hanke's observations on central bank balance sheets. When discussing the evaluation of central banks, Hanke (2001) draws particular attention to the need to consolidate central bank balance sheets to include any off-balance sheet items and to observe the relationship between domestic and foreign transactions when under pegged exchange rate conditions, since adverse changes in either can lead to manufactured responses. He does so, because in his view,

> 'a balance sheet reveals a central bank's monetary liabilities (high-powered base money). It also shows the make-up of those liabilities, or the split between net domestic assets (the domestic component of base money) and net foreign reserves (the foreign component of base money)... This suggests the best route to understanding predicting currency crises is a timely diagnosis of central bank balance sheets... To obtain a true picture of a central bank's operations, ...a current consolidated balance sheet is essential. It contains the information required to determine the basic health of the central bank, the general soundness of a currency and the sustainability of an exchange rate.' (99-100)

Hanke draws inspiration from Hicks's conversation with Arjo Klamer (1989) just before Hicks died in 1989:

> '*Klamer*: It seems to me that you think very much from an accounting point of view. When I read your work, I see balance sheets, income statements... You also seem to think like an accountant about capital... *Hicks*: Yes exactly. I mean, after all, I did that little textbook, which was called 'Social Frameworks', but which ought to have been called 'the social accounts'... *Klamer*: Would you like to be remembered as the accountant of the economics profession? *Hicks*: I would not in the least mind... I have actually seen business decisions being made on the basis of projected balance sheets. I think that is the rational way to make a business decision. A lot of these mathematical models, including some of my own, are really terribly much in the air...'

As Hanke adduces, 'for Hicks, the balance sheet was the key to understanding how decisions are made and what their expected consequences would be.' (99) In this, he seems to echo Pepper and Oliver's

claim that 'financial crises usually occur after banks' balance sheets have been allowed to grow at an unsustainable rate for many months.' (84) Their argument is that there is no economic constraint on the 'manufacture' of liabilities by the central bank.

In order to see to what extent, if at all, the ACB concept is borne out by actual arrangements or trends in the case studies, this accounting framework is designed to render visible, but also thereby practicable, the 'point' of the ACB concept in practical terms.

This requires paying greater attention to key precepts identified in Section 4.1 – among them:

- general independence from government and financial institutions
- capitalisation that cannot subvert its 'mission' (a matter of placing its public mandate in a body that has majority voting control, but no pecuniary benefit)
- management with professional autonomy in the discharge of its responsibilities
- profit distribution to the providers of capital (that is, they are not socialised)
- all activities in support of its core activity (see below)

Core Activity

The ACB concept requires greater precision concerning core and non-core activities. Firstly, the core activity of a central bank is all that pertains to operational independence and floating exchange rates. This concept removes from the bank the maintenance of foreign exchange and other reserves intended to influence the exchange rate. Such reserves as are held are for the purposes of smooth, profitable and independently managed operation and are linked to the societal aim of the central bank, in much the same spirit that the assets of a charity in liquidation pass to a like body with like aims, and do not revert to private interests (only, note, the auditorial central bank is a for-profit organisation).

Secondly, it is, of course, a main assumption about today's financial architecture that the government uses future tax revenue to collateralise the sale of its securities into financial markets. Although questionable in the ACB perspective, the image is that the government provides the basic liquidity, hence the central bank can act as lender of last resort. On this concept is predicated the entire set of procedures whereby central banks acting as agents of government use open market operations and their lender of last resort function to provide liquidity and manipulate the level of money supply through reserve requirements.

Thirdly, financial stability does not require to be 'engineered' by direct means, such as supervision. It means promoting stable behaviour on the part of economic actors, its own and the government's included. In this sense, financial stability ranges from the promotion of meaningful reporting in terms of capital adequacy, risk assessment and other aspects of full public disclosure (as in New Zealand), to encouraging robust payments systems (discussed below), to providing refreshments at 'pass the hat' meetings of

commercial banks when the position of hedge funds is in doubt.[108] Similarly, while systemic economic health may require last resort *liquidity*, it does not follow that this needs to be lent or lent by a central bank. Financial institutions could achieve the same end by bond arrangements, where the collateral is a call on past or future profits of the institutions, not on the taxpayer - thereby, incidentally, inhibiting if not wholly preventing the socialisation of speculative losses. The auditorial central bank does not conduct supervision, therefore, nor does it lend last resort liquidity.

Similarly, while there needs to be a monetary base and credit creation, and while it is reasonable to expect providers of both to see a profit on their activity, this can be done within a privatised, that is, decentralised concept, as would be the case under free banking, for example. To centralise money issue (and therefore seignorage) in the central bank is to give the central bank a vested interest that conflicts directly with independent monetary policy, in the sense that monetary policy seeks to tailor the stock of money to economic needs, whereas seignorage invites the printing of money for the sake of the seignorage itself, regardless of the economic consequences (see 3.1.9).

Payments

Another important area is payments. Central banks often make much of their role in maintaining a viable payments system. The BIS, for example, hosts a Committee on Payments and Settlements Systems. In a recent report,[109] it describes the importance of robust payments systems in the following way: 'Safe and efficient payments systems are critical to the effective functioning of the financial system. Payment systems are the means by which funds are transferred between banks, and the most significant payment systems are major channels by which shocks can be transmitted across domestic and international financial systems and markets. Robust payments systems are, therefore, a key requirement in maintaining and promoting financial stability.'

The Report produces a list of ten 'core principles' and deems central banks responsible for overseeing their introduction and maintenance. However, taken as a whole and insofar as they imply a virtuous type of behaviour, while one can understand why in current conditions central banks would be involved in their implementation, were all the actors to exhibit such behaviour of their own accord, the payments system would be robust yet virtual. It is not clear, in other words, why this should be the domain of central banks in any absolute or permanent sense.

Indeed, without gainsaying the obvious fact that robust payments systems underwrite financial stability, their gesture can be seen as akin to requiring public disclosure on the part of banks in New Zealand, where reliance is placed on markets/actors doing the central bank's work. As if in recognition of this point, the Report points out that insofar as they operate payments systems themselves, central banks have also to subscribe to the core principles. Under the ACB concept, therefore, payments systems are at best a subset of financial stability.

[108] The reference is to the Fed's hosting of the LTCM 'rescue' meeting.
[109] Core Principles for Systemically Important Payments Systems, BIS 2000.

Concerning Liquidity

Prompted by the increasing focus on operational independence, there is one final consideration concerning liquidity. While it is clear that operational independence[110] allows the markets to do the central bank's work, one wonders whether things can (or should) rest at that stage, since two things in this regard are not at all clear from an economic point of view. Firstly, that *prior* liquidity (in effect, a float) is ever needed, and secondly that mortgaging the tax base should provide it. Lundberg[111] puts it thus: 'This is a chicken-egg question. ...all the books didactically explain money creation by credit. They always start by throwing money out of a plane, a zeppelin, then they look how it goes. You have to understand the money creation by credit, but it does not go by itself. You deliver credit, the person has to ask for it, so it is not simply a question of spontaneous creation of money. The two of them are there - the chicken and the egg, but which comes first?'

It is interesting to note that in LETS systems, which are in effect micro banks, it is often a major point of debate whether accounts are first established with a float or by an act of buying and therefore going into debit (not debt). The debate refers very precisely to the origin of money. From an accounting point of view, the float makes no sense, because the question remains, if 'head office' or the government provides it, what is the counter part? Lastly, if one analyses the evolution of fractional reserve lending, in accounting terms one can readily see that the counter part to bank-issued credit is not the tax base but future profitability (and hence creditworthiness) of borrowers, combined with a willingness to leave deposits with the banks.[112]

This makes for too wide a discussion here, but the matter is fundamental. Technically speaking, it points to several important phenomena, all with direct implications for policy and practice:

1) the ultimate key to liquidity - that is, to people being able to fund their transactions - is confidence, not a float.

2) banks do not create money 'out of nothing', as monetary reformists accuse them of doing.

3) the true cover for credit is the future profitability of the borrowers.

4) there is no *economic* necessity (a) for credit to be collateralised, (b) to be collateralised by government, or (c) to be collateralised with tax revenues.

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[110] i.e. setting short term interest rates so that market forces, working through the price of money, determine the credit and thus overall money supply, thence price stability.

[111] An interviewee for this research – see Section 5.3.1.

[112] It can, of course, be argued that taxation is a rechanneling and therefore subset of future profitability. The difference, however, is that to route future profitability via taxation is to invite government into economic affairs.

This corresponds to the increasingly virtual nature of finance, in which the likelihood is that *implied*, not prior, liquidity is required, and that this, accordingly, would be provided by some kind of bonding scheme among financial institutions, by, for example, collateralising their profits on an 'in-the-event' basis.[113]

For these reasons, under auditorial central banking open market operations and reserve requirements would be dispensed with. The substantial implications of this statement are recognised. It is made, nonetheless, because in the ACB concept the government is an economic actor among others, required to run its affairs and its accounts in corporate mode, as in New Zealand and slowly also in the UK. Nor is this to invent the future: although many governments *under present conditions* are major players in their economies, their scope is reducing and, indeed, in many countries their operations are dwarfed by those of financial markets and transnational corporations.

4.2.2 The ACB Accounts Template

Together with the detailed structural considerations in Section 4.1, these general, albeit far-reaching, considerations lead to specific expectations concerning how an auditorial central bank would structure its accounts (and, therefore, also its affairs). The image is of the central bank extracting itself from the wider remit it has come to have today by 'de-acreting' many of the functions, especially services to government and financial institutions, traditionally performed by a central bank. By the same token, any monopoly status previously enjoyed by fiat, convention, or tradition becomes subject to 'contestability', in Baumol's sense, and based, therefore, on the central bank being the best provider of its services in value-for-money terms.

A key aspect, therefore, concerns the manner of income. In all its activities, in order not to be implicated in money flows, the auditorial central bank derives its income on a fee basis, with interest received or paid on any funds it may hold or place being managed on a risk-matching basis, as also are the terms and other aspects of such funds. In this way, the auditorial central bank itself relies upon, but cannot directly influence, financial stability. It is not a case apart.

Further, the logic of auditorial central banking extends that which underlies the distinction between issue and banking in conventional central banking by creating as a third department 'services to government and financial institutions'. Thus:

- services to government and financial institutions
- money issue
- core activities (monetary policy, research and analysis, and financial stability)

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[113] This procedure is used by one Swiss pension fund to avoid 'automated inflation' in its investment returns. In the event of one investee failing, all remaining investees pay an increased interest rate to cover the 'gap' left by the failed investee.

Services to Government and Financial Institutions

Insofar as any such services are retained, they are conducted as non-core activities offered on a competitive, priced-service basis. They are also firewalled from the central bank as such and do not entail balance sheet risk, beyond the personnel, equipment and property required to provide the services. Such services are in effect expendable profit centres that specifically do not involve the central bank in clients' money flows. Fund management is typically absent.

The Issue Department

Free banking arguments notwithstanding, insofar as currency issue can be regarded as having a public good quality, any income derived from the issue should arguably be to the benefit of the whole community. Since such benefit could simply be defined as whatever derives from the fact of an effective currency, the issue itself need only be conducted on a break-even basis, and without reserves. The income to cover the costs is seigniorage, but adjusted to achieve break-even on operating. That is, it is neither taxation nor 'money printing'. This concept is, of course, at the limit of free banking, since money issue by the auditorial central bank is done on a contestable basis. Other issuers may exist, but if the auditorial central bank works to break-even this provides it with a competitive edge.

Core Activities

The core activities of the auditorial central bank are monetary policy, research and analysis, and financial stability, but since it derives its income on a fee basis, its balance sheet comprises only those assets (personnel, equipment and property) needed to carry out its work and the financing of those assets.

Monetary Policy

If, *externally*, monetary policy is per universally floating exchange rates, the central bank does not need foreign currency or gold reserves to discharge this function. Indeed, as Hayek notes, all foreign currencies are '*the*' monies[114] and it is a moot point whether these would survive in conditions of generalised central bank contestability, which would be a feature of any general adoption of auditorial central banking; while gold would indeed have become a relic of less civilised times.

Under central bank independence, *internally*, monetary policy is per short term interest rates, but how would this work if the central bank could not modify its balance sheet? In Andrews' terms,[115] what would anchor interest rates in the short term if the central bank did not have, as a 'power in reserve', the ability to manipulate its balance sheet? The obvious answer is that, were central banking no longer to act in this way, it would invite moral prudence. In the end, central banks can only provide such prudence on our behalves any way. While we may not yet be mature enough to do without an enlightened prince - unable,

[114] The Denationalisation of Money, p.76. Authors italics.
[115] A Bank of England interviewee.

that is, not to drain the punchbowl dry - financial maturity has to be the aim. The deeper problem here is that, insofar as central banks engender moral hazard, they can be self-perpetuating, pre-empting the very behaviour they would prefer to see.

The notion of contestable money issue is related to this matter because it amounts to a relaxing of the central bank's moral guardianship. Moreover, the problem of financial immaturity is not really a concern as regards cash, but as regards credit creation. In a decoupled world, however (see Section 3.1.6), credit creation is a competitive matter. Interest rates are market-derived, with competition serving to maintain a default to low rather than high interest rates.

The auditorial central bank thus recognises but does not set short term interest rates. It reflects back but does not instigate economic conditions, other than by, in effect, representing the view of the economy as a whole, pointing out any imbalances, which, however, have to be remedied by the economic actors generally. In respect of money, therefore, the ACB concept comes close to free banking, certainly in regard to its banking aspect.

To quote Orr, referring to the RNZ, central banking 'is being peeled like an onion over time, in search for its core.' But where will this lead? What is the essence of central banking today and, more to the point, tomorrow? Clearly, the Bank of England is relevant here. In Volcker's words: 'You have taken away the regulatory authority..., you have taken away discretionary monetary policy. What's left? Take away debt management, too. It's not quite reducing it to a computer, but in that extreme conception there is not a lot left.'

Research and Analysis

Today the focus is on monetary policy, but what does that mean if monetary policy becomes virtual? Is the emphasis in the end on money as *determined by* the central bank or as *reported to* it? It is known, for example, that to effect monetary policy in a floating context requires high quality research. Is this a reflection, therefore, of money-become-information? Is it, then, the role of the auditorial central bank to provide the unit of account rather than the currency? When 'auditorial', indirect functioning comes to the fore, is this proof, as Bingham put it, that 'we will always need [central banks] to provide the yardstick that we need to measure value by the price stability of money?'

Financial Stability

What of financial stability in this context? As detailed elsewhere in this dissertation, this has the character of supervision in the New Zealand case, where detailed, regular and high quality disclosure by banks is designed to heighten transparency and to expose financial institutions to public scrutiny. Investigation by the central bank gives way to reporting to it. While in negative instances this may trigger occasional central bank intervention, the informational substance of what is reported is an important and on-going

component of research. To the degree that monetary policy becomes virtual, therefore, it seems to be clearly associated with the research and analysis function, while presupposing of financial stability.

Accounts Template

All these deliberations resulted in a 'check list' by means of which the cases could be assessed in ACB terms:

- separated noncore/issue/core.
- fee-based income (priced-service).
- absence of government tasks.
- absence of financial institution tasks.
- no interventionist supervision.
- issue to break-even.
- issue by competition.
- no liability manufacture.
- strong research and analysis department.
- no exchange rate intervention.
- no FX / gold reserves.
- control/capital separated.

The check list also provided the basis for a template (Chart 4.3) for the accounts of an auditorial central bank, intended as a means for examining those of the case studies, in terms of the difference between current practice and auditorial central banking, and for highlighting any differences in approach between the cases. In contrast to the usual presentation of accounts, for exposition purposes its format shows both income and expenditure statement and balance sheet as two columns with income/assets on the left and expenses/liabilities on the right.

Chart 4.3: ACB Accounts Template

INCOME	EXPENDITURE
SERVICES TO GOVERNMENT AND FINANCIAL INSTITUTIONS Income from fees on priced services	SERVICES TO GOVERNMENT AND FINANCIAL INSTITUTIONS Costs thereof ------------------------ Run to a profit
ISSUE DEPARTMENT Seignorage	ISSUE DEPARTMENT Costs thereof ------------------------ Run to break-even
CORE ACTIVITIES (= Monetary Policy + Research and Analysis + Financial Stability) Income therefrom on fee / priced service basis	CORE ACTIVITIES (= Monetary Policy + Research and Analysis + Financial Stability) Costs thereof ------------------------ Run to a profit

ASSETS	LIABILITIES
SERVICES TO GOVERNMENT AND FINANCIAL INSTITUTIONS No client funds ------------------------ Personnel Equipment Property	SERVICES TO GOVERNMENT AND FINANCIAL INSTITUTIONS No client funds ------------------------ Financing of assets
ISSUE DEPARTMENT Funds lent to markets ------------------------ Personnel Equipment Property	ISSUE DEPARTMENT Funds borrowed against issue ------------------------ Financing of assets ------------------------ No reserves
CORE ACTIVITIES (= Monetary Policy + Research and Analysis + Financial Stability) FX and Gold but no manipulation ------------------------ Personnel Equipment Property	CORE ACTIVITIES (= Monetary Policy + Research and Analysis + Financial Stability) OBS! ------------------------ Financing of assets ------------------------ Reserves Control with minimal shareholding General shareholders without control

5: FINDINGS AND ANALYSIS

For presentational purposes, the findings and analysis are grouped together under four headings. Firstly, the structures (Section 5.1) are presented as a list of features reproduced from their as-published formats. Secondly, the accounts (Section 5.2) are presented as standardised versions of published material. (The full versions are held on the database.) Thirdly, the essential data derived from the interviews (Section 5.3) is presented in the form of a grid detailing the responses to a common set of questions, together with transcripts of the key responses. Lastly, chronologies show the context of each case in terms of financial liberalisation and regulatory change (Section 5.4).

5.1 Structures of Cases

To examine the structural aspect of the cases a template was created based on the hypothetical ACB model developed in Section 4.1. Information concerning the structures of the cases was then introduced, taken from three main sources – publications of the organisation concerned, commentaries in books,[116] and papers and remarks made by interviewees. Finally, the template format facilitated analytical commentary by comparing the case to the ACB model and measuring the results.

5.1.1 Findings

The details of each case were compared to the ACB model with its 37 main features or variables, with the findings measured in terms of matching (M), approximating (A), tending towards (T), diverging from (D) the ACB model. The full analysis is held on the database, allowing only the overall results to be included here – see Chart 5.1: Findings – Structures.

[116] Especially, Pringle, R. and Courtis, N. (1999) 'Objectives, Governance and Profits of Central Banks', London, Central Banking Publications.

Chart 5.1 - 1: Findings - Structures

ACB	Hypothesis: Features of ACB	BCB	RNZ	FRS	BOE	ECB	BIS
1000	**CONSTITUTIONAL**						
1100	*Societal Agent*						
1101	Exists in own right by act of parliament (or equivalent)	D	A	T	A	T	D
1102	Operates by way of clear legislative mandate (letter and substance)	A	M	A	A	A	A
1103	Main central bank purpose(s):						
1103a	monetary policy (3300)	T	M	T	A	A	T
1103c	research and analysis (3400)	A	A	A	A	A	T
1103b	financial stability (3500)	D	M	D	A	D	T
1104a	independent of government	D	T	A	T	A	T
1104b	independent of financial interests	D	T	T	D	D	T
1200	*Democratic Accountability*						
1202	Transparency in finance and decision-making	T	M	A	A	D	A
1203	Freedom in communication	A	M	A	A	D	A
1204	Reporting to (and audited by) parliament:	D	M	A	T	D	T
1204c	frequency to maintain currency of information	T	A	A	A	A	A
1300	*Conceptual Guidelines*						
1301	Distinguishing between political and economic	T	A	T	T	A	A
	TOTAL	M A T D 0 3 4 5	M A T D 6 4 2 0	M A T D 0 7 4 1	M A T D 0 8 3 1	M A T D 0 6 1 5	M A T D 0 6 5 1

Chart 5.1 - 2: Findings - Structures

2000	**INSTITUTIONAL**	BCB	RNZ	FRS	BOE	ECB	BIS
2100	*Type of Organisation / Ownership and Control*						
2101	Limited company (or equivalent)	T	M	T	A	T	A
2102	Controlled by trust-mandate in fulfilment of constitutional role	T	T	A	T	A	A
2200	*Finance*						
2201	Capitalised by shareholders with right to dividend but not to override or subvert trust-mandate	T	A	T	A	A	M
2202	Distribution of profits to reserves and shareholders	T	A	A	A	A	M
2203	Source of profits = income in excess of expenditure	T	M	A	T	T	M
2204	Sources of income from fulfilment of tasks (1103) no other allowed (to avoid conflicts of interest)	T	A	A	T	A	M
2205a	No seignorage (either zero or to society generally)	D	D	T	D	D	M
2205b	Note issue	D	D	D	D	D	M
	Own budget and debt burden	D	A	D	T	A	M
2300	*Governance*						
2302	Composition of general board (broad church)	D	A	A	T	D	A
2302d	head of bank appointed by board (per expertise ex board or external)	D	D	A	T	D	D
2303a	Tenure disjoined from electoral & political cycles	D	A	A	A	A	T
	TOTAL	M A T D 0 0 6 6	M A T D 2 6 1 3	M A T D 0 7 3 2	M A T D 0 4 6 2	M A T D 0 6 2 4	M A T D 7 3 1 1

Chart 5.1 - 3: Findings - Structures

3000	**OPERATIONAL**	BCB	RNZ	FRS	BOE	ECB	BIS
3100	*Non-functions on Side of Government*						
3101	Banker to government	T	D	D	D	A	-
3101a	current account	T	D	D	D	A	-
3101b	lender	A	D	T	A	A	-
3102	Cover and management of government debt (zero finance of G deficits = no OMOs in G debt)	A	D	T	A	A	-
3200	*Non-functions on Side of Finance*						
3201	Consumer protection in finance	D	T	D	A	A	-
3203	Banking supervision per 'meaningful' disclosure a la NZ?	D	A	D	M	A	A
3204	Banker to banks only as relevant to monetary policy	D	D	D	D	D	-
3300	*Monetary Policy (1103b)*						
3301	Freely determined formulation of monetary policy (Goal Independence)	T	A	T	D	A	T
3302	Freely determined implementation of monetary policy (Instrument independence)	T	M	T	A	A	T
3303	Internal - price stability prominent via s-t interest rate	T	M	T	A	A	T
3304	External Policy - PPP via exchange rate setting (via universal float or judged approximation) and exchange rate implementation	T	M	T	T	T	T
3500	*Financial Stability (1103c)*						
3501	Use of inherent regulation (universal accounting framework)	D	A	D	A	A	A
3502	International collaboration (e.g. co-ordination of monetary policy)	T	T	T	T	T	M
3503	Lender of last resort (in extremis and only when risk is systemic)	A	A	A	A	A	M
	TOTAL	M A T D 0 3 7 4	M A T D 3 4 2 5	M A T D 0 1 6 7	M A T D 1 7 2 4	M A T D 0 11 2 1	M A T D 2 1 4 0

Chart 5.1 - 4: Findings - Structures

	RESUME	BCB	RNZ	FRS	BOE	ECB	BIS
	CONSTITUTIONAL TOTAL	M A T D 0 3 4 5 = T	M A T D 6 4 2 0 = M	M A T D 0 7 4 1 = A	M A T D 0 8 3 1 = A	M A T D 0 6 1 5 = A	M A T D 0 6 5 1 = T
	INSTITUTIONAL TOTAL	M A T D 0 0 6 6 = D	M A T D 2 6 1 3 = A	M A T D 0 7 3 2 = A	M A T D 0 4 6 2 = A	M A T D 0 6 2 4 = A	M A T D 7 4 1 1 = A
	OPERATIONAL TOTAL	M A T D 0 3 7 4 = T	M A T D 3 4 2 5 = T	M A T D 0 1 6 7 = D	M A T D 1 6 5 4 = T	M A T D 0 11 2 1 = A	M A T D 2 1 4 0 = A
	OVERALL TOTAL	M A T D 0 6 17 15 = T	M A T D 11 14 5 8 = A	M A T D 0 15 13 10 = T	M A T D 1 18 12 7 = A	M A T D 0 23 5 10 = A	M A T D 9 11 10 2 = A

5.1.2 Initial Analysis

Initial analysis of the structures (see Table 5.1) shows a high incidence of approximation or tending towards. In all cases where divergence is recorded, the reason is government involvement, mainly in terms of control of governance, banking to government, or seigniorage.

	BCB	RNZ	FRS	BOE	ECB	BIS
Constitutional	T	M	A	A	A	T
Institutional	D	A	A	A	A	A
Operational	T	T	D	T	A	A
=	T	A	T	A	A	A

M = matching , A = approximating, T = tending towards, D = diverging from the ACB model.

Table 5.1: Structures - Results

5.2 Accounts of Cases

This section provides overview accounts for each of the cases in the study based on those most recently published by the organisation concerned. These were lengthy documents, usually having a general format of summarised figures with details to be found in narratives and sub-accounts.

5.2.1 Findings

To make the material manageable, the accounts were recast in a standardised format so that all the information came onto one page – Charts 5.2 – 5.7. It is in this format that the findings are presented since they pretty much tell their own story. Finally, although the main interest of this dissertation is in the structure and items of the accounts, the amounts were also faithfully reproduced.

Chart 5.2A: BCB Operating @ 31.12.99 (000 BRS) [As published]

INCOME	
Security Operations	56 125 254
Foreign Sector Operations	73 307 614
Banking Sector Operations	3 654 501
Special Systems Operations Earnings	3 305 681
Reversion of Provisions	7 581 810
Other	3 611

Sub-total	143 978 471
Non-operating	7 659 874
Ex Treasury re.Loss	13 041 763

Total	164 680 108

EXPENDITURE	
Security Operations	60 617 056
Foreign Sector Operations	66 047 179
Banking Sector Operations	3 642 209
Earnings on Deposits Per order by Fed Gov.	17 143 463
Constitution and Monetary /Exchange Provisions	12 601 366
Management Expenditures	881 350
Other	38 571

Sub-total	160 971 194
Non-operating	3 708 914

Total	164 680 108

Chart 5.2B: BCB Balance Sheet @ 31.12.99 (000 BRS) [As published]

ASSETS

Item	Amount
Foreign	
Foreign Sector Operations	71 347 331
Hard to recover Credits	(2 801 579)
	68 545 752
Internal	
Operations	
Loans to FIs	8 744 672
Fed. Public Securities	64 283 328
Reduction in Market Values	-
Repos	2 603 802
Nat. Treas. Notes	53 607 398
Operations with non earmarked	33 266
Other credits	1 183 333
Credits receivable	36 366 899
Securities receivable	2 137 887
Credits re debts in execution	904 131
Real estate debtors	9 668
Hard to recover credits	(13 516 470)
Other accounts	825 586
FX amounts	314 707
Fines	418 270
Results to offset	13 041 763
Inventory	2 329
Real estate not reserved to use	17 371
Anticipated expenditures	465 169
	170 730 132
Permanent	
IMF	7 428 213
IDB	-
IBRD	-
Other orgs.	64 156
	7 492 370
Movable properties	101 039
Real estate	758 401
Depreciation	(112 553)
Intangible goods	129
	747 017
	8 239 387
Total	247 515 271

LIABILITIES

Item	Amount
Foreign	
FX	26 039 316
Deposits of int. FIs	8 010 093
Earmarked resources	
Other	47 108
	34 096 518
Internal (180 410 286)	
FI deposits	33 783 917
Banking reserves	18 602 185
Deposits by S&Ls	16 433 476
Compuls. Res. on Time Deps	836
Compuls. Res. on Judicial deps	5 660 321
Other reserves	267 000
Deposits in Public secs	(7 179 900)
Deposits per order of fed gov	75 779 217
Single Nat Treas acc	24 025 059
Treasury Items	51 754 158
Other deposits	25 917
Other liabilities callable	
BCB Bonds	-
BCB Bills	1 122 332
BCB Notes	61 345 717
Sec Operations – repos	7 343 081
To Treasury	4 041
Funds and Programs	80
Other Accounts	65 998
	69 881 249
Other liabilities in FX	168 744
Earnings on fed gov deposits	203 006
Other accounts	567 235
	939 984
Currency	29 837 941
Equity	2 576 356
Contingency reserves	67 819
Re-evaluation reserves	526 351
Net worth	3 170 527
Total	247 515 271

Chart 5.3A: RNZ Operating @ 30 06 01 (000 NZD) [As published]

INCOME

FINANCIAL	
Foreign Currency	
Cash at Central Banks	23 060
Other Cash	39
Marketable Securities	130 657
Short Term Advances	-
Repos	11 215
Securities Lending	584
IMF	-
	----------
	165 555
Local Currency	
Repos	78 139
Advances to Government	-
NZ Government Securities	170 220
Government Bank Accounts	211
Advances to Staff	19
Term Loans	2
Other	14
	----------
	248 605
Plus Various	36 068
	(257 874)

Sub-Total (Financial)	***192 354***
NON FINANCIAL	
Registry Services	5 371
Collectors' Sales	2 560
Property Rentals	1 571
Registry Bank Fees	3
Currency Distribution	396
OIC Fees	627
Miscellaneous	870
	----------
	11 398
TOTAL	203 752
PER FUNCTION ANALYSIS	
MP Formulation	35
Market Operations	14 646
Financial Stability Oversight	7
Currency Operations (Seignorage)	166 498
Foreign Reserves Management	16 547
Banking Services	1 518
OIC	628
Other	2
Registry	6 317
Intercompany	2 446

Total	***203 752***

EXPENDITURE

FINANCIAL	
Foreign Currency	
Repos	3 560
Term Liabilities	172 670
IMF SDRs	-
	----------
	176 230
Local Currency	
Government Deposits	76 862
Other Deposits	4 782
	----------
	81 644
	< - - - *257 874*
NON FINANCIAL	
Personnel	20 146
Asset Management	6 289
New Currency Issued	9 341
Administration	1 600
General Operating	7 012
Taxation	99
	----------
	44 487
Transfer to Equity	1 584
Transfer to Reserves / Government	157 681
TOTAL	203 752
PER FUNCTION ANALYSIS	
MP Formulation	7 194
Market Operations	2 795
Financial Stability Oversight	3 074
Currency Operations (Seignorage)	19 198
Foreign Reserves Management	3 699
Banking Services	1 316
OIC	691
Other	841
	----------
	38 808
Taxation	99
Registry	6 026
Intercompany	446

Sub-Total (Non Financial)	***44 487***
FA Surplus 40 200 – 38 808	1 392
Registry Surplus	192
Transfer to Reserves / Government	157 681

Total	***203 752***

Chart 5.3B: RNZ Balance Sheet @ 30 06 01 (000 NZD) [As published]

ASSETS

FINANCIAL ASSETS		
Foreign Currency		
Cash at Central Banks		105 537
Other Cash		3 037
Marketable Securities		4 226 880
Unsettled Securities Sales		90 524
Repos		1 314 560
Accrued Interest		71 380
		5 811 918
Local Currency		
Cash on Hand		58
Repos		1 600 265
NZ Government Securities		2 445 433
Accrued Interest		46 584
Other		91
		4 092 431
Sub-Total (Financial)		***9 904 349***
NON FINANCIAL ASSETS		
Accounts Receivable		1 822
Inventories		
- New Notes	6 487	
- New Coins	1 049	
- Collectors'	615	
		8 151
Deferred Tax		214
Collections		778
Land and Buildings		35 721
Office Equipment		1 923
Software		1 712
Vehicles and Equipment		761
Leases		355
Work in Progress		22
Sub-Total (Non Financial)		***51 359***
TOTAL		9 955 708

LIABILITIES

FINANCIAL LIABILITIES	
Foreign Currency	
Unsettled Securities Purchases	123 097
Short Sales Marketable Securities	186 536
Repos	911 618
Term Liabilities	4 496 971
Accrued Interest	94 647
	5 812 869
Local Currency	
Government Deposits	1 327 376
Settle Bank Deposits	48 503
CBK Deposits	2 684
IMF	26 297
Other	209
Accrued Interest	245
	1 405 314
Currency in Circulation	*2 159 965*
Sub-Total (Financial)	***9 535 829***
NON FINANCIAL LIABILITIES	
Accounts Payable	15 324
Employee Funds	1 661
Other C/L	336
Provision	1 245
Demonetised Currency	1 213
Surplus Provision	157 681
Sub-Total (Non Financial)	***9 555 608***
Equity	400 100
TOTAL	9 955 708

Chart 5.3A: FRS Operating at 31.12.00 (000 USD) [As published]

INCOME

ISSUE

Issue of FR Notes	
Assessed on RBs re costs	435 837 762

FR BOARD

Assessed Reveune ex RBs	188 067 200
Other revenues:	
Data Processing	4 817 207
Natinal Info Center	2 606 998
Subs revenue	1 079 822
Reimburse to other agencies	607 716
Misc.	533 536
	-----------
	9 645 279
	-----------
	197 712 479
Loss	1 405 376
	---------------
	199 117 785

ALL BANKS COMBINED

Interest on USG securities	32 737
FC	269
Loans to Dep. Insts.	23
	----------
	33 029
ex Services	882
Per pro Government	302
Other income	82
	----------
	34 295

EXPENDITURE

ISSUE

Redemption of FR Notes		
Expenses of provision		435 837 762

FR BOARD

Board Operations		
Staff		138 266 329
Professional Fees, etc.		13 860 641
Dep		8 855 763
Utilities		6 249 503
Travel		5 769 788
Office		5 536 156
Eq. Rent		5 075 502
Software		4 192 658
Ep and Maintenance		3 373 654
Printing		2 047 590
Other:		
Fees	1 429 231	
Catering	821 817	
Subs	837 071	
Misc.	2 802 152	
	-------------	
		5 890 271

		199117 785

ALL BANKS COMBINED

Salaries		1 507
Occupancy costs		196
Equip. expenses		243
Unreimbursed services		8
Assessments by BoG		624
Other		357
FX Losses		1 410
Gov. securities losses		82
		----------
		4 427
Dividends to RBs		410
To surplus account	4 115	
To UST re notes (seignorage)	25 343	
		----------
		34 295

Chart 5.3B: FRS Balance Sheet @ 31.12.00 (000 USD) [As published]

ASSETS

FR BOARD

C/A		
Cash		22 842 252
Acct receivable		1 057 901
Prepaids, etc.		1 108 766
		25 008 919
Land		1 301 314
Buildings		44 978 514
Equipment		49 090 528
Software		7 883 210
Cosntruc. In Progress		9 980 880
Depreciation		(44 712 672)
		68 521 774
		93 530 693

LIABILITIES

FR BOARD

C/L		
Acc Payable		10 702 740
Accruals		14 533 689
Lease		180 340
Unearneds		2 044 160
		27 460 929
Lease		280 683
Pension Fund		7 869 942
		35 611 554
Fund		
b/f	59 324 515	
Loss	1 405 376	
		57 919 139
		93 530 693

ASSETS

ALL BANKS COMBINED STATEMENT OF CONDITION

Gold certs		11 045
SDR		2 200
Coin		949
Under Collection		7 152
Loans to Dep. Insts.		110
Repos		43 375
USG Securities (Net)		518 501
FC Investments		15 670
Interest recble		6 111
Bank Premises & Equip (net)		
Land	192	
Buildings	1581	
CiP	163	
Equipment	1290	
		1 949
Other		2 815
		609 877

LIABILITIES

ALL BANKS COMBINED STATEMENT OF CONDITION

FR Notes in circ.	563 450
Deposits	19 472
UST General acc.	5 149
Deferred Credit	6 357
Interest on notes (to UST)	560
Accrued Benefit Costs	848
Other	250
	596 086
Capital Paid In	6 997
Surplus	6 794
	609 877

Chart 5.4A: BOE Operating @ 29 02 00 (000 GBP) [As published]

INCOME

ISSUE

UK Securities	791 000
Non UK Securities	591 000
Other	1

Total	**1 383 000**

BANKING

Sources	330 000

(Details absent due to LOLR confidentiality.)

TOTAL	**330 000**

EXPENDITURE

ISSUE

Production of Notes	41 000
Issue Costs	18 000
Other	7
	----------
	66 000
Transfer to Government	1 317 000

Total	**1 383 000**

BANKING

Business Units	
MP Formulation	16 900
Market Operations	41 300
Financial Stability Oversight	8 400
Europe	1 300
CCBS	1 300
Printing	37 700
Registration	3 800
	----------
	110 700
Centrally Borne	
Personnel	23 700
Property	32 600
Finance and IT	6 500
Other	33 500
	----------
	96 300
Profit Allocation	
Taxation	23 000
Transfer to Equity	50 000*
Transfer to Government	50 000*
	----------
	123 000
TOTAL	**330 000**

* P(L) 50/50 Government:Bank

Chart 5.4B: BOE Balance Sheet @ 29 02 00 (000 GBP) [As published]

ASSETS		LIABILITIES	
ISSUE		ISSUE	
Government Stocks	183	Currency in Circulation	25 135 000
Ways and Means	3 580 000	Currency at Banking Department	5 000
	3 763 000		
Central ???	929 000		
Deposit at Banking Department	668 000		
Repos	19 780 000		
	21 377 000		
Total	**25 140 000**	**Total**	**25 140 000**
BANKING		BANKING	
Cash	5 000	CBK TARGET	13 583 000
Under Collection	405 000	CBK Deposits	2 959 000
Bills	11 000	Bank Deposits	1 812 000
CBK TARGET	13 652 000	Customers	1 497 000
IMF	5 415 000	Euro Bills	2 121 000
UK Government Securities	1 396 000	Other	584 000
Non UK Government Securities	2 100 000		
	22 984 000		***22 556 000***
Land and Buildings	176 000	Capital	15 000
Equipment	24 000	Revaluation reserves	242 000
Leases	158 000	P&L	1 085 000
Shares	45 000		
Prepayents, etc.	511 000		
	914 000		
TOTAL	***23 898 000***	***TOTAL***	***23 898 000***
Sterling	2 500 000	Sterling	5 157 000
Non Sterling	21 398 000	Non Sterling	18 741 000

Chart 5.5A: ECB Operating @ 31 December 2000 (000 EUR) [As published]

INCOME		EXPENDITURE	
FINANCIAL INCOME		FINANCIAL EXPENDITURE	
Interest on income on FX assets	2 507 165	FX transfers to NCBs	1 375 111
Other interest	4 657 470	Interest Paid	4 375 476
Gains on financial operations	3 352 768	Write-downs on financials	1 084
Net income fees and commissions	674	FX Transfer	2 600 000
Other income	904	Staff Costs	80 276
		Admin Costs	82 809
		Depreciation on (in) tangibles	14 103
			8 528 859
		Profit to General Reserves	398 024
		Profit to NCBs	1 592 098
	10 518 981		***10 518 981***

Chart 5.5B: ECB Balance Sheet @ 31 December 2000 (000 EUR) [As published]

ASSETS — FINANCIAL

Item		Amount
Gold and gold receivables		7 040 906
Non euro area claims per foreign currency		37 475 048
Euro area claims per foreign currency		3 824 523
Non euro area claims per euro		698 252
Euro area credit claims per euro		288 143
Euro area securities per euro		3 667 731
Intra-Eurosystem claims (net)		13 080 794
Other:		
Tangible and Intangible Fixed assets:		
Land & Buildings	1 305	
Computers	21 043	
Equipment	4 852	
Construction	21 691	
Etc.	15 277	
		64 168
Other Financial assets		81 758
OBS revaluations		251 564
Accruals and deferred expend.		862 316
Sundry		3 747
TOTAL		67 338 952

LIABILITIES — FINANCIAL

Item	Amount
Euro area credit claims per euro	288 143
Liabilities to other euro area Per euro	1 080 000
Liabilities to non euro area Per euro	3 421 112
Liabilities to non euro area Per foreign currency	4 803 381
Intra-Eurosystem liabilities	39 468 950
Other:	
Accurals and deferred income	1 626 022
Sundry	52 006
Provisions	2 637 039
Revaluations	7 972 627
Capital (ex 11+4 NCBs)	3 999 550
Reserves	0
Profit for Year	1 990 122
TOTAL	*67 338 952*

ASSETS — EUROSYSTEM CONSOLIDATED

Item	Amount
Gold and gold receivables	117 073 000
Non euro area claims per foreign currency	258 825 000
Euro area claims per foreign currency	15 786 000
Non euro area claims per euro	3 750 000
Euro area lending for mpy per euro	268 648 000
Claims on Euro area credit inst. per euro	578 000
Euro area securities per euro	26 071 000
Other assets	87 559 000
TOTAL	835 961 000

LIABILITIES — EUROSYSTEM CONSOLIDATED

Item	Amount
Bank notes in circ.	371 370 000
Euro area liabilities for mpy per euro	124 642 000
Euro area credit claims per euro	305 000
Debt certs. Issued	3 784 000
Liabilities to other euro area Per euro	10 824 000
Liabilities to euro area Per foreign currency	806 000
Liabilities to non euro area Per foreign currency	12 414 000
SDR counterpart	6 702 000
Other	72 215 000
Revaluations	117 986 000
Capital and Reserves	57 866 000
TOTAL	835 961 000

Chart 5.6A: BIS Operating @ 31 03 00 (000GFR 1GFR = 1.94 USD) [As published]

INCOME

FINANCIAL	
Interest, Discount and other Operating	4 222 390
TOTAL	4 222 390

EXPENDITURE

FINANCIAL	
Interest, Discount and other Operating	3 845 833
NON FINANCIAL	
Board of Directors	1 177
Management and Staff	40 620
Office and Other Expenses	19 363
Depreciation	7 572
	68 732
Transfer to Equity	54 658
Transfer to Reserves	253 167
Sub-Total (Non Financial)	***307 825***
TOTAL	4 222 390

Chart 5.6B: BIS Balance Sheet @ 31 03 00 (000GFR 1GFR = 1.94 USD) [As published]

ASSETS

FINANCIAL	
Gold in bars	2 265 426
Gold Time Deposits and Advances	1 240 343
Cash at Banks	11 382
T Bills	7 853 868
Time Deposits and Advances	41 853 875
Repos	1 268 088
Govn. and Other Term Securities	20 139 939
	----------
	74 632 922
NON FINANCIAL	
Land and Buildings and Equipment	120 715
Miscellaneous	82 029

Sub-Total (Non Financial)	***202 744***
TOTAL	74 835 666

LIABILITIES

FINANCIAL		
Gold Deposits		2 820 209
Currency Deposits		65 903 656
Repos		103 048
Miscellaneous		2 519 864
		----------
		71 346 768
NON FINANCIAL		
P&L		307 825
Valuation Differences		191 955
Reserves		
- Legal	33 073	
- General	1 259 064	
- Special	68 530	
- Free	1 550 880	
	------------	
		2 658 382
Equity		330 728

Sub-Total (Non Financial)		***3 482 898***
TOTAL		74 835 666

5.2.2 Initial Analysis

To assess how the accounts of the cases stand in relation to the ACB hypothesis, the as-published accounts in their standardised format (Charts 5.2 - 5.7) were compared to those of the accounts template in terms of 12 variables. The findings are presented below, accompanied by some initial analysis. Table 5.2 presents the overall results, measured in terms of matching (M), approximating (A), tending towards (T), diverging from (D) the ACB model.

Banco Central do Brasil

	ACB	CASE	Measure
Separated noncore/issue/core?	Y	No	D
Fee-based income (priced-service)?	Y	Covered by Treasury	D
Absence of government tasks?	Y	Many government tasks	D
Absence of financial institution tasks?	Y	Much involvement	D
Interventionist supervision?	N	Yes	D
Issue to break-even?	Y	No	D
Issue by competition?	Y	No	D
Liability manufacture?	N	Yes	D
Strong research and analysis department?	Y	Exists, but not explicit in accounts	T
Exchange rate intervention?	N	Intervenes despite floating	T
FX / gold reserves	N	Yes	D
Control/capital separated?	Y	No	D

M	A	T	D	
0	0	2	10	= D

The BCB's published accounts are clearly presented, detailing well the Bank's wide range of activities, including those it still undertakes for the Federal Government – including currency issue, Treasury agent, government banker, and a range of public functions, as well as monetary policy, foreign exchange tasks and supervision. Compared to the ACB template, therefore, there is a long way to go. The strong presence of the government in the Bank's activities, as also in its governance, makes it a *divergent* case.

Reserve Bank of New Zealand

	ACB	CASE	Measure
Separated noncore/issue/core?	Y	Issue / Rest of operations	T
Fee-based income (priced-service)?	Y	Largely, but ex PTA ex government	T
Absence of government tasks?	Y	Some	T
Absence of financial institution tasks?	Y	Minimal	T
Interventionist supervision?	N	Yes	D
Issue to break-even?	Y	No	D
Issue by competition?	Y	No	D
Liability manufacture?	N	Yes	D
Strong research and analysis department?	Y	Evident per monetary policy budget	A
Exchange rate intervention?	N	None	M
FX / gold reserves	N	Some	T
Control/capital separated?	Y	No	D

M A T D

1 1 5 5 = T

The RNZ's published accounts are, as might be expected, lucidly presented and intended to require the minimum of supplementary explanation. The main point to draw attention to is the distinction between financial and non-financial items, which has the merit of differentiating the tasks of the bank from the assets and operations needed to provide its services, the clear differentiation between 'foreign' and 'local' and the supplementary 'per function analysis' of its operating. Such elements enable one to see into the heart of the Bank, in line with its general public relations stance of making its tasks and the manner in which it carries them out fully explicit. The relative simplicity of the RNZ's accounts also reflects its tight focus on price stability and its correspondingly 'light touch' approach to supervision.

Compared to the ACB template, overall the RNZ is *tending towards* auditorial central banking, especially in terms of its approach to financial management and its long history of 'pure' floating. However, although its issue aspect is demarcated within the accounts, it remains a sole issuer.

Federal Reserve System (USA)

	ACB	CASE	Measure
Separated noncore/issue/core?	Y	Issue / Rest of operations	T
Fee-based income (priced-service)?	Y	Many priced services	T
Absence of government tasks?	Y	Still some	D
Absence of financial institution tasks?	Y	Still some	D
Interventionist supervision?	N	Yes	D
Issue to break-even?	Y	No	D
Issue by competition?	Y	No	D
Liability manufacture?	N	Yes	D
Strong research and analysis department?	Y	Yes, evident in I&E accounts	T
Exchange rate intervention?	N	Yes	D
FX / gold reserves	N	Yes	D
Control/capital separated?	Y	No	D

M A T D

0 0 3 9 = D

The Fed's published accounts reflect its structure of 12 regional banks and the Board that oversees their overall operations. The accounts also reflect the wider range of functions with which the Fed is charged, including growth, price stability, employment, lender of last resort, supervision and regulation, and consumer credit protection. That said, the Fed has latitude in how it interprets its goals and it currently puts the emphasis on price stability (see interview analysis – Section 5.3). Using a subtle phrase, in its July 2000 Budget Review, the Fed described its role as acting 'to ensure that the nation's economy grows at a pace consistent with price stability.' Compared to the ACB template, while it demarcates its issue aspect, which is underwritten by the US Treasury on a no-gain no-loss basis, and while it has a strong research and analysis element, the Fed's accounts show it to be well short of 'double independence', and thereby *divergent*.

Bank of England

	ACB	CASE	Measure
Separated noncore/issue/core?	Y	Issue / Rest of operations	T
Fee-based income (priced-service)?	Y	No	D
Absence of government tasks?	Y	Yes	A
Absence of financial institution tasks?	Y	Yes since 1998	A
Interventionist supervision?	N	No	A
Issue to break-even?	Y	No	D
Issue by competition?	Y	No	D
Liability manufacture?	N	Yes	D
Strong research and analysis department?	Y	Yes	T
Exchange rate intervention?	N	Yes	D
FX / gold reserves	N	Yes	D
Control/capital separated?	Y	No	D

M A T D

0 3 2 7 = T

The Bank of England produces clearly presented accounts, a reflection of its efforts to 'educate' the public to the benefits of price stability. The Bank distinguishes between Issue and Banking, of course, an approach strengthened differentiation within the banking department between 'business units' and activities that are 'centrally borne'. Moreover, the section on business units has an underlying functional analysis. Compared to the template, being the 'Volcker' example, it approximates auditorial central banking in key respects, but its continuance as sole issuer and continued exchange rate intervention, not to mention heavy government presence in the governance since 1997, are divergent elements. On balance, however, it can be regarded as *tending towards*.

European Central Bank

	ACB	CASE	Measure
Separated noncore/issue/core?	Y	Issue / Monetary Policy / Credit	T
Fee-based income (priced-service)?	Y	No	D
Absence of government tasks?	Y	Yes	A
Absence of financial institution tasks?	Y	No re. credit	T
Interventionist supervision?	N	No, by NCBs	T
Issue to break-even?	Y	No	D
Issue by competition?	Y	No	D
Liability manufacture?	N	Yes	D
Strong research and analysis department?	Y	Yes	A
Exchange rate intervention?	N	Yes	D
FX / gold reserves	N	Yes	D
Control/capital separated?	Y	No	D

M A T D
0 2 3 7 = T

The ECB accounts reflect its federated structure, providing information on the ESCB as a whole and the ECB itself. Notwithstanding its sole issuer status and exchange rate intervention, compared to the model, the ECB clearly is strongly, if at times nominally, distanced from political interference. Again, on balance, *tending towards*.

Bank of International Settlements - Accounts

Not being a central bank, the accounts of the BIS are those of a financial institution, albeit one that is specially placed in the global economy. In terms of this test, therefore, it was not included.

A Crucial Cross-case Observation

When examined in terms of their accounts, the most obvious and most crucial feature of all cases studied is their role as sole issuer of legal tender. In most other respects, the central banks studied are clearly, becoming indirect (auditorial) in their functioning. This result is not, of course, surprising.

	BCB	RNZ	FRS	BOE	ECB	BIS
M	0	1	0	0	0	-
A	0	1	0	3	2	-
T	2	5	3	2	3	-
D	10	5	9	7	7	-
=	D	T	D	T	T	-

M = matching , A = approximating, T = tending towards, D = diverging from the ACB model.

Table 5.2: Accounts - Results

5.3 Interviews

The interviews were conducted with due regard for concerns that the researcher should set the agenda and satisfy himself as to the truthfulness and accuracy of the interviewees. The intention was to seek the views of both present and past senior central bank officers (see Section 5.3.1) on what 'should' happen in the field of central banking, and their assessments of their organisations' actual situations and prospects. The assumption was made that those in office would express the view of current policy and thinking within their organisation, while those who were out of office could be expected to provide information that reflected their experience and subsequent 'freedom'. In both cases, it was assumed that the high standing of the interviewees would yield original and 'high quality' insights.

This intention was closely approximated. Of the four main cases, at the BCB three officers were interviewed, at the RNZ one of the interviews was exploratory only and did not use the main questions. Secondary interview material was also derived from a well-known and well-informed economic commentator in the case of Brazil, and a former governor and former chancellor in the case of the Bank of England (interviewed for a video documentary, 'The Dogs May Bark…', produced by the researcher as a degree project while at the University of Sussex). As regards the secondary cases, no interviews took place at the ECB on the grounds that the institution was too young (see Note in Section 2.5.2), while at the BIS four interviews were conducted but all interviewees were incumbent.

Most interviews were timed to last no more than an hour. In the case of Francisco Gros this was doubled by invitation of the interviewee. In the case of Eduardo Lundberg, the interview had a preliminary session with a longer session a week later, again by invitation of the interviewee. In the case of the BIS, one interview was arranged with Fernandez de Lis, but on receipt of the questions three extra interviews were offered with more senior officers.

The interviews were conducted in order to produce primary sources of interpretations. Each interview had a twin characteristic - part *semi-structured*, based on a clear list of issues to be addressed and questions to be answered, and part *open-ended*, to allow the interviewee to become also an 'informant'.

5.3.1 List of Interviewees

(Italicised entries are the secondary instances mentioned in Section 5.3.)

Date	Interviewee	'Status'	Recorded; Transcribed; Corrected R T C
The Banco Central do Brasil			
22.7.99	Gustavo Bussinger	Senior Economist at the BCB headquarters in Brasilia	Y Y Y
23.7.99	Eduardo Lundberg	Main Executive in the BCB's Sao Paulo Research Department	Y Y Y
6.10.99	Francisco Gros	Twice president of the Banco Central	Y Y Y
5.10.99	*Norman Gall,*	*Director, Fernand Braudel Institute, Sao Paulo*	*N N N*
The Reserve Bank of New Zealand			
30.7.97	Bruce White	Economist	N N N
15.9.99	Adrian Orr	Chief Manager of the Economics Department	Y Y Y
The Federal Reserve Board of the USA			
10.3.00	Paul Volcker	Former Chairman	Y Y Y
5.4.00	William Whitesell	Asst. Director, Division of Monetary Affairs	Y Y Y
The Bank of England			
28.2.01	Charles Goodhart	Former Member of Monetary Policy Committee	Y Y Y
6.2.01	Peter Andrews	Head of Monetary Strategy	Y Y Y
11.1995	*Lord Kingsdown*	*Former Governor*	*Y Y N*
11.1995	*Lord Healey*	*Former Chancellor*	*Y Y N*
The European Central Bank			
No interviews conducted.			- - -
The Bank of International Settlements			
23.8.99	Frederik Musch	Associate Director, Financial Stability Institute	Y Y N
23.8.99	Gavin Bingham	Secretary to the Board	Y Y N
23.8.99	Joe Bisignano	Head of Research	N N N
23.8.99	Santiago Fernandez de Lis	Senior Economist, Monetary and Economics Department	N N N

5.3.2 The Main Interview Questions

As the interviews were conducted at a relatively early stage of the research, they covered a wide range of topics. In consequence, the full complement of questions was somewhat numerous. The intention, however, was to get a sense of the interviewees' understanding of the philosophical and theoretical context of modern central banking, as well as their views on the topics central to the research and the particular circumstances of their institutions. To this end, the questions were couched so as to engender a rich yield of data at several levels: interviewee specific, case specific, issues across all cases, practical considerations, and normative questions about policy and conclusions

Although the wider responses are drawn upon in the discussion section (see Sections 5.3.4 and 6.2), for the stricter purposes of this dissertation only those questions that relate to its main focus are included in the results reported here (Section 5.3.2), having first been recast in a standardised format in order to make them coherent to the reader.

This process amounted to 'combing' the material in order to yield progressively more objective information and to filter out undue interpretation and bias (Dey 1993), then 'coding' it (Denscombe 1998) in order to identify 'patterns, processes and commonalities' (Miles and Huberman 1994).[117] As a result, certain of the questions have been better phrased to make their sense clearer, or to accommodate responses made in the context of answering a different question. The standardising of the questions in this way was not an abstract or casual process, since it had to remain faithful to the sequence of the original interview. Moreover, care had to be taken not to alter the interviewee's remarks either directly by injudicious editing or indirectly by altering their meaning through relocation or rejuxtaposition.

1: The Role of the Central Bank as a Societal Agency

Under auditorial central banking the central bank operates supra-politically and as a societal entity in its own right. What are the prospects for / or arguments against this in the [XYZ] case?

2: Reciprocator / Broad Church

Auditorial central banking envisages the central bank as representative of the economy as a whole, to which end it needs to be representative of a broad church of economic interests. How broad a church does the [XYZ] represent?

3: Systemicity as Public Good

In terms of auditorial central banking, the maintenance of the systemic health of the financial system is regarded as a public good, albeit delivered through a partnership between private actors and the central bank as a societal agency. Is the idea of systemicity as a public good a meaningful concept in the [XYZ] context?

4: Democratic Deficit / Public Accountability

To avoid a 'democratic deficit', auditorial central banking places great reliance on accurate, transparent, and meaningful reporting – both from the economic actors to itself and from itself to society at large.

- How accurate, transparent, and meaningful are the reporting procedures *to* and *from* the [XYZ]?
- How clear are the policies and methods of the [XYZ]?
- How well understood and/or accepted are they by the [XYZ] constituency?

5: Research and Judgement

The 'discretion vs rule' debate notwithstanding, central banking involves reconciling contrasting interests or making trade-offs, which is ultimately a matter of making judgements. Of the three functions of the auditorial central bank, research and analysis is vital to grounding such judgements in experience and expertise and basing them on sound advice and objective economic data. How up-to-date, effective, and respected is the research aspect of the [XYZ]?

6: Price Stability and Operational Independence

A second function is the pursuit of price stability, often by way of single objective monetary policy and operational independence. How is this perceived in the [XYZ] context?

7: Exchange Rate Policy

After Blinder (1995), under auditorial central banking, the central bank is charged with judging what the 'right' exchange rate is for its currency, rather than the government for political reasons or the markets alone for short-termist reasons. What are the prospects for / arguments against this in the [XYZ] case?

8: Central Bank qua Auditor

Implicit to auditorial central banking is the idea that the central bank is less a bank, more an auditor, and that it works less by way of direct involvement in and influence on money flows and the banking system, more by indirect means – requiring sound balance sheet construction (e.g. capital adequacy), increased transparency of accounting, and establishing codes of 'best practice'. Such an image is especially relevant to the rising dominance of the financial markets. Would you concur with this view?

9: Supervision

How essential is it for the central bank to retain supervision of the financial system?

10: Financial Markets

Would you agree that the basic logic of the financial markets is economic and global rather than political and national?

11: Regulation of Financial Markets

Do you see their regulation as a practicable and/or desirable thing? If so, how would it be best achieved and by what kind of institution?

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[117] The data base includes the original transcripts and both the corrected and combed versions of all interviews, as well as contextual papers written in the manner of 'direct observations', but not intended as direct data (see Appendix 2: List of Doctoral Papers.).

12: Above the Fray

Do you concur with the idea of the central bank as an 'above the fray' institution providing a necessary balance to the markets?[118]

13: Free Banking

Is a central bank necessary or are the financial markets taking us towards free banking and a fully marketised economy?

14: Credit Creation and Nonbank Money

Credit creation and thus the money supply are increasingly carried out by nonbanks. How does this effect central bank control?

15: Global Money

Notwithstanding the 20th century's preference for national fiat money, auditorial central banking conceives national currencies as sub-global and economic categories rather than national and political. This implies that the currencies of the world could comprise an articulated (rather than unified) global currency, instead of the US dollar, for example, backed by 'deliberate and scientific' policy, as Keynes put it, rather than gold. Does this concept make sense in the [XYZ] context?

16: Going Back?

Has a bridgehead been created with central bank independence, or do you envisage a turning back of the clock?

17: Cross Party / Cross Culture

Is central bank independence seen as narrowly based from a social point of view, or is it cross party and cross cultural?

5.3.3 Key Responses to Interview Questions (= Central Bankers' Interpretations)

The responses to the questions have been clustered and graded in terms of M, A, T and D (see Chart 5.8), the grading decision being taken in the light of the wider knowledge about the cases ascertained in Sections 5.1 (Structures) and 5.2 (Accounts). Allowance was also made for the fact that the questions concerned both principles and practical aspects of the cases concerned, the two not always being readily separable. The chart shows that not all the questions were answered and the responses were not even, reflecting, of course, the skills, interests and biases of the interviewees, and the areas they considered themselves competent in. Nevertheless, the responses were very even and in only one case – Q6 at the FRS – did the replies show a slight contradiction, which was in fact a difference of emphasis.

[118] The expression is from Capie, Goodhart and Schnadt, *The Future of Central Banking*, p.91: 'Central bankers are, perhaps, seen as having more in common with the judiciary, than with politicians or commercial bankers; and are perceived as both technically expert, above the fray of self-seeking, and a necessary agent (of democratic government) for imposing order on a potentially unruly financial system.'

INTERVIEWEE	Bus	Lun	Gro	BCB =		Orr	RNZ =		Vol	Whi	FRS =		Goo	And	BOE =		Mus	Bis	Bin	FdL	BIS =
QUESTION																					
1	T	T	T	T					A	A	A		T	T	T			T	T	A	T
2									A	A	A			A	A						
3										A	A										
4	T	T		T		A	A		A	A	A		A	A	A						
5			T	T		A	A			A	A										
6	T	T	T	T		M	M		A	T	T										
7	T	T		T		A	A			T	T		T	T	T		T			T	T
8		T	T	T									A	A	A			A	A		A
9	T			T		A	A						M		M		A			M	A
10			A	A		M	M		A		A		T	M	A		M				M
11			A	A		M	M		A		A		T	T	T		A	A			A
12			A	A					A		A		A	A	A						
13			D	D						D	D			D	D				D		D
14		A		A					A	A	A			A	A						
15			T	T					T	T	T		T	T	T			T			T
16	T	T	T	T		A	A						A		A						
17						M	M						M		M						
M				0			4				0				2						1
A				4			5				9				7						3
T				9			0				3				4						3
D				1			0				1				1						1
RESULT				T			A				A				A						T

Chart 5.8: Interviewee Responses

	BCB	RNZ	FRS	BOE	ECB	BIS
M	0	4	0	2	-	1
A	4	5	9	7	-	3
T	9	0	3	4	-	3
D	1	0	1	1	-	1
=	T	A	A	A	-	T

M = matching , A = approximating, T = tending towards, D = diverging from the ACB model.

Table 5.3: Interviews – Results

A chart cannot convey the richness of the interviews, however, and so it felt appropriate to accompany it with some more direct evidence, which has been done by lifting the interviewees' key responses from their transcriptions. Although cryptic and without the wider remarks in which they occurred, in all cases they remain direct quotations and are faithful to the interviewees' general commentaries.[119]

General

All the responses echoed each other and, not unpredictably, represented what one might call the standard description of the roles and functions of a central bank per Capie et al. (see Section 3.2.1):

Control of fiat money
Guarantee stability of the economy
Provide a yardstick to measure the value by price stability of money
Public guardian of credit
Instrument seeking monetary stability
Stability in the payments system
Stability of the financial system
Lender of last resort

Q1: The Role of the Central Bank as a Societal Agency.

As to the ACB notion of the central bank as a societal agent in its own right and having goal independence, this produced a number of lucid and emphatic responses. Gros, though noting that 'the goals of the Central Bank are still evolving', was adamant, and not only as regards Brazil: 'The issue of who it answers to is really subsidiary to the first question as to how consensual are the goals that you set up for that central bank. I have always tended to say, the central bank can be the more independent, the more limited its goals. If it is given a clear mandate and told, 'OK, you are to act within this box; this is your mandate,' you can give them total independence. But to give independence to the central bank managers to do whatever they want - obviously, they are not elected officials - you cannot do that. And

[119] These 'highlighted interviews' are also held in the data base.

that confusion is very much woven into the Brazilian debate. Politicians will tell you, we cannot give independence to these bureaucrats without understanding that you only give independence after you have given them a very narrow and clear mandate. They confuse independence with absolute power. And it is the opposite. So when you are talking about operational independence, yes, I think that is possible and achievable. But goal independence? Obviously it is unwise, impossible and silly. The goals have to be set by society through parliament at best, if that can be achieved, but the central banks should be responsible for the management of the operational levers to attain those goals.'

This response warrants careful reading. The ACB concept is not that goal independence amounts to a licence to usurp democratic accountability, although it does question whether the requirements of democracy are met by political means alone (see later comment by Volcker). Auditorial central banking, like central bank independence, rests on precise goals and procedures. The difference is that it does not see that *government* should set *economic* goals; more precisely, that partisan political aims should override general economic ones. Indeed, double independence is about service, not power.

Secondly, the auditorial central bank reports to parliament, which, as Gros says, should be the expression of the public will. Indeed, this is an increasingly common practice. But what does it mean precisely? How does society, through parliament, know what best economic goal to set? Surely it has to defer to the economic community, just as for justice it defers to the judges? It is not, after all, political but economic wisdom that underwrites price stability. To be sure, any parliament reflects the stage of political evolution of its people, which can make it a very two-edged sword, as Gros points out, and in that regard the question is how to educate society to appropriate economic goals such as, in the BCB president, Arminio Fraga's, words, 'the finitude of GNP or, as in the UK and elsewhere, to the 'rightness' of low inflation. But from which quarter does society take its cue? From economic events, clearly: witness New Zealand in 1984.

Goodhart comes out against goal independence as 'wrong headed' and 'highly unlikely in the UK.' Yet, again, his remarks merit closer scrutiny. The image of the central bank as 'the technical agent of government, and indeed of the public will' differs only in that he says 'government' where auditorial central banking says 'parliament'. And yet, which of these is the truer expression of the public will? His concept of monetary policy as 'a key element of sovereignty' is important, yet the ACB concept is of the central bank reporting to parliament – the seat of sovereignty. In short, the question turns on how today one understands the roles of government and parliament and the relationship between them. In the ACB concept, parliament is above government.

The case of the Fed is interesting in this regard. Although for Volcker, 'the Board is not an entity in its own right, but a creature of Congress' not the Executive (= parliament not government), in its specific area of operation it is 'more than an equal partner' to Congress and 'can actually set the targets.' The Fed, of course, does not only have price stability as its goal. Indeed, its goals are ill defined, but this gives it great latitude in discharging its task. The image is more that the Fed and Congress determine the goals through on-going dialogue.

Lastly on this subject, Bingham at the BIS points out that the ECB reports to the European Parliament[120] and that many central bank governors, in the words of Trichet, 'respond to invitations to come to parliament.' The issue there is more, to whom do they report in practice? Usually to a committee of some sort, but do the members understand the matter being reported on? Which way, in reality, does the causality run as regards understanding the 'right' precepts for the conduct of economic life?

In sum, resistance to the ACB concept had much to do with confusion or lack of clarity over the meaning of government / parliament. It is not too far off the mark to see the auditorial central bank as, in Bingham's words, a 'model of accountability of a neutral and impartial instrument ... of the body politic.'

Q2,3 and 4: Broad Church, Systemicity, and Public Accountability.

On the general question of the central bank's representativeness, no respondents suggested that this should be other than catholic and most described their respective institutions as having this as an ideal, although the manner in or the degree to which it was achieved varied. Importantly, here also the question arises as to what form such representation takes in order for it to be perceived as society-wide. The focus on general price stability, or Orr's image, if a little crude, that 'every dog has its day', the statistics, accounting and anecdotal reporting to the Bank of England, and, judging from their published organigrams, all other cases in the study, suggest two things – that economic concerns do not meet the democratic imperative by political means but by a combination of figures and narrative, to use accounting terms, and that these represent as societal a language for economic life as electoral procedures do for political life. In a picture, it is no longer a matter of having on the central bank board people who prefer beer and sandwiches to canapés and wine. All of us need to learn the language of economics and that it is not anti-democratic.

The opting, in the case of New Zealand's supervision, for example, to create an environment and framework as the context for financial institutions to report their affairs to the public at large goes in this direction. The implication is that heightened understanding of financial and economic affairs reduces the reliance placed on political processes as best arbiters of economic life within a modern democracy.

As Volcker put it, 'The accusation that [the Fed] is undemocratic I think relies upon some unreal description of democracy in my mind, that somehow all decisions have to be made, if not by referenda initially, then by an elected officer. In the US we consider ourselves a great democracy, but the Supreme Court is not exactly democratic from that standpoint... It is an important institution. It is in the constitution, unlike the Federal Reserve, and it is outside the normal democratic process, defined as direct responsibility to an elected official. So to some extent is the Federal Reserve.'

Admittedly, Goodhart expresses a melancholic view when he says: 'One of the reasons [the Bank of England] is not subject to the democratic deficit, is that it does not have goal independence. In other words, the central bank is effectively told by the Chancellor, Gordon Brown, what he is going for,

[120] Though see Marshall's (1999: 248) description of the weakness of the European Parliament.

currently a quantified target of 2.5%. So what it is to achieve is set out for it and then effectively it uses its one instrument, which is interest rates, to try to achieve what it has been told to achieve. So it is all very accountable and very transparent and there is no democratic deficit because effectively if somebody says I do not like what you are doing, the answer is if you do not like the target, go and see the Chancellor because it is his target.' But this can also be read as buck-passing and is even disingenuous in one way. Why should the central bank not be as accountable for any goals it sets as for the instruments it uses? Why would central bankers be any less professional or reputation-conscious in such an event? And what is the 2.5% target of the finance minister? In choosing it, is he not taking his cue from economic imperatives? When the inflation target, or rather when in the absence of a target inflation was high, this was either due to socialist views prevailing over perceived financialism, or to governments funding their profligacy or cronyism. So when a Labour government in both New Zealand and the UK usher in central bank independence, are we not experiencing something of a watershed in and transformation of traditional political stances as regards economic life, all in the direction of a cross party, cross cultural modality? (Note: the ideological irony and the real effects of the 1998 Bank of England Act are considered elsewhere – see Section 6.4.)

A similar story is told in Brazil. Clearly, Brazil has a long way to go in terms of central bank independence, but its success so far and its continued success are seen to rely on people recognising the value of systemic economic health and being prepared to play their part in bringing it about. The Brazilian correspondents all described this as a matter of careful management of wide-ranging change. This will take time – even a generation - but none saw the possibility of going backwards. The most insecurity comes from the fact that central bank independence is still 'at the will of the prince' and the enabling legislation remains unpromulgated some 13 years after it was established. There are, as it were, no property rights in the matter, so reliance is currently placed on a new culture arising out of changed economic circumstances. The hope is that central bank independence will cease to be what Gros calls 'a work in progress.'

Q5: Discretion, Rules and Judgement.

A contentious topic concerns the discretion or rule debate. Predictably, all interviewees expressed the view that it was of the essence of central banking. As Orr put it, 'If you are not prepared to make the judgment, then don't be in the game.' Orr was, however, clear on the importance of rules: '...a lot of research regarding robust monetary policy rules is really searching for the optimal variability of inflation and the variability of output trade-off. Where along that trade-off curve can you get closer and closer to the origin, where you are reducing both? At a certain point, if, for example, we are targeting inflation next quarter, then we are going to have to lean backwards and forwards, and output is going to be going plus and minus, and people are not going to enjoy it. If we take a more medium term view on inflation, say one to two years ahead, and a more flexible approach to our target like zero to three, we will aim for the mid-point; but at times you might just have to accept it goes either side because of unexpected events. Then you can reduce the variability of growth and instruments, and hopefully not have too large an

increase on the variability of the price target. So it is playing these rules. Looking at putting in different structures of rules. Operating rules which will minimise a trade-off.'

Whitesell at the Fed said a similar thing: 'I do not think you want to try to restrict the discretion that someone has. Now any rules that have ever been proposed and that are of any use have been studied, and our research economists here are running various rules all the time. Prior to FOMC meetings the results of these kinds of rules are circulated to all the Policy Members. If they want to follow the rule, the rule is there in front of them to tell them exactly what to do and to the extent that the Policy Makers believe in these rules provide good information, then they may follow its suggestions. To the extent that they believe there is some idiosyncratic features in the current economic circumstances that would make the rule not be appropriate as it is given in all its elegant simplicity then they would tend to depart from it, and perhaps with good reasons. But these are judgement calls.'

In Gros's image, 'it is useless for you to set up a rigid element because if the forces that fly against it are too strong and it does not bend, it will just break.' Also in the Brazilian scenario, Lundberg puts it thus: 'I understand the difference between floating and the rule. They are two quite opposites and in the real world neither one works well without the other. You have the rule, but from the moment that you see that your rule is not working well you change it. You maintain a rule, but you change the rule. It is not so fixed. This is the problem for Argentina now. They put the rule in the Constitution - they are suffering. On one side of the rule there is a fixed rule that is not true; on the other, no country has let its currency float completely. When you have the sense that the floating is not clean, that there is something that would affect the stability of the domestic economy, you can do some intervention, but you mainly respect the market. I do not think that the rule is complete - you have some space to intervene. What you cannot do is to imagine that you can go against the market.'

Putting the emphasis on judgement, of course, places a premium on the 'quality' of governor. Americans are proud of Greenspan, Brash has the added inducement of performance-related pay, Fraga enjoys a market-based reputation, but is this any more capricious, from an economic point of view, than the whims of a prince or the faddism of politicians?

Inasmuch as auditorial central banking also gives an important role to judgement on the part of the governor, the views echoed the ACB concept. Better put, both lie with the grain of economic evolution.

Q6: Price Stability and Operational Independence.

Price stability is one of the two pillars of the ACB thesis (the other being universally floating exchange rates). All correspondents were in favour of price stability and were working in their different contexts to make it a permanent, irreversible part of the monetary landscape. On the one level, Brazil clearly faces the greatest challenges, with ingrained habits built up over years of patronage and dictatorship and 'bizarre' arrangements such as the conto movimiento (cash in exchange for debts) and an average retirement age of 49 years with an assured and sizeable pension. But 'it all boils down to Brazilians'

pockets.' (Bussinger) In New Zealand, of course, price stability is well established, notwithstanding neo-Keynesian and other criticism (see Dalziel 1993) Right now, however, 'it has become a circular thing. It is just a non-debate.' (Orr)

For the Fed, Whitesell and Volcker both seemed happy to have the ambiguity of the present situation, where price stability is a goal among others, but the Fed in recent years has given it tacit priority. Whitesell put it thus: 'Price stability is written into the Federal Reserve Act, but it is not the only objective. Maximum employment is also mentioned there and low long-term interest rates. I would say that there has been proposed legislation for explicit goals, for example inflation rates, that have come up in Congress from time to time and we generally have been supportive of those efforts. I think we have also raised issues about how complicated it is to pick a particular price measure and identify the degree of measurement bias in that measure and therefore try to set an explicit goal in respect of a specific measure. It is just a complicated kind of business to try to do. In addition, even those countries that we see that are explicit targeters of inflation, will talk about the fact that they have not given up. They are not, in Gordon Brown's phrase, 'inflation nutters' in that they are refusing to look at a situation of economic weakness as one in which the central bank has some responsibility.'

Whitesell's reference to Gordon Brown is interesting, as it clearly indicates that price stability may not always be the key feature of Labour economic policy that it currently is. Indeed, as seen in Section 6.4, the 1998 Bank of England Act can be seen as a deliberate increase of central bank dependency that took advantage of public assumptions about the connotations of central bank independence. As to public understanding of it, however, Andrews said, 'people's knowledge of what the target is and why it is there - has been improving. Recognition that a lower rate of inflation is beneficial to the economy, I think has been progressing in the last few years.[But] how policy can help bring that about ... is less well understood because most people do not carry a model of the economy around in their heads... We talk a lot to the financial markets, who are major consumers of the Inflation Report. But there is no doubt that it requires hard and continuing effort to obtain that sort of conceptual understanding of what is going on.'

Q7: Exchange Rate Policy per the Central Bank.

The second pillar of auditorial central banking is universally floating exchange rates, not patchily or partial floating. While none of the cases fulfil this condition, since by definition all central banks would need to do so for any one to, the relationship of the cases to it is interesting. New Zealand, of course, has unflinchingly floated since March 1985, notwithstanding that 99% of banks operating in New Zealand are foreign owned. The fact that in the aftermath of the baht collapse, New Zealand did not become 'another Asian topple' despite large swings in the value of its currency provides a real example of and strong evidence for the practicability of universally floating exchange rates.

Brazil, arguably at the other end of the spectrum, has also recently floated January 1999. It did so in the context of its liberalisation process and in response to the late 1999 financial crisis. Paradoxically

perhaps, floating reinforces central bank independence in the sense that it calls on the central bank to strengthen its research aspect and to augment its professionalism.

In smaller or less strategic economies, floating also, of course, 'seeks' goal independence, as Fischer and others have made plain.[121] On the other hand, motor economies, such as the USA, can afford (or at least think they can afford) to neglect their exchange rates, which is not quite the same thing as floating, of course.

In Goodhart's view, exchange rate policy is a 'very, very tricky corner', with every country regarding its approach as *the* approach. In general, however, he argues that 'the more it concerns strategy, the more the government is the leading player and the more you get towards tactics within a regime strategy the more the central bank is the leading player.'

At the Bank of England, Andrews recognises that a central bank has not 'quite the control over the foreign exchange value of its currency that it does over the internal value of its currency. The key reason for that is when we are operating a domestic currency we have at least the theoretical power to create as much of it as we like.' He admits that even though central banks do intervene, their actions are constrained by global economic realities. 'That is not to say we cannot influence the exchange rate. Certainly within so called fixed exchange regimes central banks can very strongly influence exchange rates for a while, but if fundamentally their monetary policies are not consistent with those fixed exchange rates then you find sooner or later that pressures build up against a rate that is unsustainable.'

His observation that monetary policy needs to comport with the exchange rate correlates with the twin-pillar image of the ACB concept. If such an approach were to become general, therefore, and in all cases it is either the underlying or overt trend, then once again the cases, while not being exact matches to, seemed to comport with the ACB concept.

As Fernandez de Lis notes: 'Constitutionally, governments tend to have the last word on exchange rates and may decree an exchange rate target. On the other hand, the central bank has the tools to implement exchange rate policy. It also has a view as to what the 'right' policy is for its currency and reacts if it regards the rate too high or too low... However, when the context is one of floating rates, the central bank has to have the last word.'

Q8 and 9: Central Bank as Auditor and Supervision.

This idea, at least in its choice of words, is something many find problematical or difficult to understand, if only because the auditing profession does not enjoy universal respect. However, Fernandez de Lis makes the more serious point when he says 'I have trouble with your idea of the central bank as auditor because auditing is a supervisory function and the trend is to distinguish this from central banking as

[121] See Fischer (1995).

such.' But auditing as meant here is not supervision of financial institutions, but a disinterested overview of the economy as a whole.

The concept can be simply stated: in a world of increasingly virtual finance, the central banks are required to act by indirect means, whereby the direction of causation is typically reversed. Mention has already been made of New Zealand banks reporting to the public, instead of the central bank sending in investigators, for example.

In similar vein, all finance and information flows are being coming virtual and in the process coalescing, so that, theoretically at least, information is becoming ever more public and arguably losing its asymmetry, on which, in Bingham's view central banking is predicated – 'Central banks exist because information is not perfect and they help contend with that.' In this process, central banks can position themselves as more public-spirited than financial institutions, for example, and in this sense all cases studied saw themselves in that light.

Lundberg: 'I do not know the best words to define it, but I think Central Bank has to have very clear view of macro economics, and a very clear sense of finance, of the working of the financial market, because all the main accounts of the country pass in a bigger or smaller way through the Central Bank. Everybody uses the country's money, everybody uses banks. When we use bank services, that passes by the Central Bank control, we use the reserves of the country, the payments system, Government debt, open market operations, interest rate policy, government financing - so it is impossible to imagine a Central Bank that does not have a very careful feel of what is happening in all macro economic and financial issues.'

Andrews describes how the Bank of England is in a context of increasingly differentiated responsibility so that, as a central bank with emphasis on monetary policy, it relies on others for information or proceeds by way o indirect techniques such as capital adequacy requirements, and so forth.

The distinction between banking and auditing is recognised by Bingham. 'One can credibly argue that banking is yesterday's industry. That it is being eroded, much of financial integration is taking place through financial markets, and many of the earlier functions that have taken place by electronic communication and that banking is shrinking very much in importance.' Indeed, he sees lender of last resort giving way to market maker of last resort and that the trend is towards a 'radically different concept of maintaining systemic stability than the traditional different one, [in which] you could almost take away bank from their title...'

Under auditorial central banking, supervision in the regulatory sense is denied the central bank because it is seen as a distraction, if not an actual conflict of interest and because the procedures involved can be placed to the account, so to speak, of players and customers. A case for protecting the unsophisticated may be mounted, but in an electronic age this surely has lessening cogency. Insofar as financial stability is one of three auditorial central bank functions, it is meant in the strict sense of an indirect relationship to the financial markets, of provoking and assisting in the establishment of 'good practice', or as one could

perhaps put it, mature financial behaviour. So the ACB concept is of the central bank having the benefit of a well-supervised (better yet, well behaved) financial system, rather than the cost of enforcing such behaviour.

In Brazil, supervision is a carry over from before, the central bank having extracted itself from all manner of financial involvements.

In New Zealand, the Reserve Bank 'is being peeled like an onion over time, in search for its core. Supervision has shifted to ... a small group, but it is not a big issue here. Why does it sit with us? I think there are official reasons in that there are some nice synergies with expertise within the Bank.' Indeed, Orr makes the important observation: 'It was more from an idea of it's a global capital market, everything is so fungible these days, no idea, let's set up an environment within which the banks have accepted to meet certain things, much of which is about disclosure, providing the warts and all. So it is about the caveat emptor version of supervision.'

Goodhart makes some interesting observations: 'There are of course other reasons for the separation of supervision from central banking - notably the fact that the financial system is becoming much more – how shall I put it? - it is not so segmented in the way that it was. So that banks, insurance companies, investment houses, are all doing more or less the same sort of thing and there was again a problem of the need to have a supervisory body which could cover the whole of the financial system because the financial system had become more of a unified system rather than a fragmented system. And that raised the question of whether it was appropriate for a central bank to extend its boundaries over the whole financial system rather than just the banks.' He also points out, however, that in the UK case, the separation of supervision was not all it seems: 'When the banking supervision department was in the Bank of England, they were actually in a sealed off part of the Bank, and that was because there was an awful lot of a confidentiality. Even people going into there did not want to be seen elsewhere in case they had their wrists slapped. There was an awful lot of confidential stuff and doors with key pads. So when I was acting there people like me did not own a key pad. I could not go into that part of the Bank where supervisors were working. So as far as I was concerned they might have been in a building ten miles away. Now when banking supervision was actually transferred to the FSA, what actually transpired was the banking supervision department of the Bank of England were effectively all asked if they would please stay on as members of the FSA. So essentially exactly the same people are doing banking supervision now as were doing banking supervision when it was done under the Bank of England and therefore they have exactly the same insights now in the FSA down in Canary Wharf as they had when they were within the Bank of England. So the idea that it is somehow different will not actually arise until sufficient time has passed for a new group of personnel or new set of people, and maybe a new ethos or new culture has become established because everybody working with the Bank who is now with the FSA have an old Bank ethos or old culture, so nothing effectively will change for a long time.'

The notion of a 'new ethos' is interesting here. It is a standard concept in management that when people who work closely together but without explicit job or task descriptions are required to spell them out, the

aim is more to heighten the awareness and thus effectiveness f the actors and the organisation in which they work. The word 'separation' needs to be treated with care, therefore. Better perhaps is differentiation, not only because of its less drastic social nuance, but because differentiation is often a strategy to increase cooperation and coordination between separate parties, to maximise, in effect, both their comparative advantages *and* the synergies among them.

While Musch at the FSI at the BIS admits to seeing the future of central banking in the sphere of supervision (regulation) rather than monetary policy, and remains unconvinced of the overall wisdom of too great a faith in markets alone, he concedes that modern finance follows markets.

In that the ACB concept is market-following, in that it seeks inherent rather than external regulation of the financial markets, the trend away from or diminution in importance of supervision carried out at central banks reflects the expectations of auditorial central banking. Again, the suggestion is that in important respects many modern developments fit into its theoretical construct.

Q10 – 14: Financial Markets, 'Above the Fray', Free Banking, E-money and Non-Bank Credit.

The ACB concept presupposes a globalised economic life, virtual finance, and the many features of today's world, which many people find problematical because they look on the world from a national and political rather than global and economic point of view. Whether modern economic life is really global met with contrasting responses.

Gros noted the reducing size and influence of central banks relative to private financial institutions. 'I think the issue is, of course, how effective can central banks be when they obviously function on a national basis, whereas capital-flows and markets are becoming more and more international? Number two, also a question of scope. The regulator is becoming so puny in terms of size and capability and even in terms of its financial savvy vis a vis the regulated bodies, that it is becoming more and more ineffectual or less and less effective.' He comments: 'I think regulation is more and more necessary and all I hope is that it does not take a major blow-up for us to conclude that. But now, how do you make it happen? Well, that is a challenge, because clearly the issues are becoming more and more global in nature. Plus the fact, it is impractical because there are too many central banks. You can have co-ordination between the BIS, the European Central Bank, and the Fed. That is workable. But if suddenly you need to get fifty central banks around the table to make it work - and even then there will be empty seats, because the Bahamian Central Bank is not going to be there - you cannot make it work. You do not have to know what each institution is doing or how each institution is positioned so long as you know what the whole picture is. I think markets would be a lot safer places if you could see what the general positions were; what the numbers really were. Right now there is a great deal of uncertainty and questions about where we are. I think if you act in a transparent manner it would help to be a self-limiting development.'

The idea of self-limiting development is important to note on account of its resonance with the ACB notion of 'inherent regulation' – see Section 3.1.10).

The New Zealand case is interesting because of its almost total reliance on global capital. The regulation they exercise is by way of being the sole issuer of New Zealand dollars, although it is nor clear that al transactions in New Zealand are required to be in NZD. As Orr describes it, however: 'We are the only supplier of New Zealand dollars. At the end of the day we hold the final trump card. If you want to do business here, largely you need the NZD within the monetary area of the New Zealand dollar, so we hold the card for that. Where are we at their whim? The price of that New Zealand dollar when we go elsewhere, other than the purchasing power over here. We have made a pledge with them that we will keep that purchasing power constant, with price stability from it... So that is basically a floating exchange rate environment.'

Volcker concurs: 'If by regulation you mean controlling the flows of money and credit to particular sectors, or interest rates, or capital flows, to the extent that you can be effective at all, I think it is pretty marginal these days. Again it's both a technical as well as an ideological question. People don't want to interfere that much, so it is not a desirable thing to interfere in markets. It is also hard as a practical matter when the markets are as complex and as integrated as they are. As long as it is very cheap to make transactions and it's very cheap to communicate and get information, it's very hard to regulate.

Effective regulation of international flows would have to be comprehensive and then the question is both whether it would be desirable or not and whether it is practicable or not. The central bank would have a lot to do with implementing it as a practical matter because it's got the intimate involvement with the banking system, but even there, the banking system is getting relatively less important. You would have to extend the area of regulation way beyond banks, and that makes it harder and harder. And to extend it internationally, there would need to be some way to get a strong international consensus. Not easy with or without the IMF!'

Andrews points to the internationalisation of staff in London-based finance houses, the non-jurisdictional nature of modern share dealing, and other phenomena to underline the increasingly global nature of modern finance. To regulate such a boundary-less environment, 'under which country is the contract and bankruptcy law? Where is the settlement system? What are its rules? Where is the lead regulator of the companies taking part? Where are the tax liabilities?'

For Bisignano, while an advocate of free markets, he is concerned about the behaviour they invite: 'The financial markets are inherently unstable because of the way we behave. The problem is that [they] presuppose adult financial behaviour, but we are not all able to meet this challenge. In the gap, fear (of getting burned) and greed (induced by winning) become major driving forces. Along with collective responses.'

Although all correspondents were concerned at the possible effects of unregulated financial markets, none saw how they could be controlled. A different note was struck by Goodhart, however, who did not accept the global argument, but rather saw things in terms of 'the major countries, the Americans, Japan, the Euro zone, and so on, are going to do what they want to do and then the smaller fry position themselves

where they want with the bigger boys…' He saw the problem in this way: '…do you need the Basel type approach to try and prevent systematic failures, contagion failures, and do you need the IMF and all that. In other words, is there some reason for trying to maintain systemic stability? There are lots of people who argue no because more or less any attempt to prop up a failing institution only makes it worse in the long run. My prejudices go in the opposite direction and I think that there is a severe danger of contagion with the banking system because it does have special characteristics. A Basel type systemic regime is necessary. It will always be difficult and will always be problematical for a variety of reasons and there is not a perfect blue print… but it would be extraordinarily difficult to think of any obvious and easily acceptable better way of doing it.'

Most correspondents saw the need for some kind of foil to the financial markets. Disdainful of free banking, their minds were on how this could be done in an integrated environment. The answer seems to be the 'consensus view' concerning monetary policy – to make the focus of the central bank monetary policy, to give it operational independence, to insulate its actins for political pressures, and so on. The idea was succinctly expressed by Andrews: 'I think the monetary policy function is key and core, and as long as banks have some need to settle with each other across the accounts of the central bank and as long as central banks themselves have a balance sheet that they can expand, then they have leverage.'

This if course begs the questions of whether all or the key elements of modern finance do in fact pass across the accounts of central banks. Among other things, this presupposes central bank control of payments systems, descried by Bisignano as a conflict of interests.

Volcker was candid: 'We keep thinking that there is a threat to the control of central banks, but there is no sign that it is happening so far. Indeed, central banks seem to be very influential. They make relatively minor moves in the market and the market responds. So I am not sure what I think. The banking system has gotten smaller, all this institutional development has taken place, all kinds of new money and near money; still, the market seems to be as responsive as ever to what the central bank does at *this* point. Somehow the ultimate liquidity of the economy is dependent upon having access to money in the central bank, and I don't think it's all a mirage.'

Whitesell was sceptical: 'I do not think that the banking system is really about to shrink up as much as some people fear. There are a lot of articles like this in the early 1990s when banks were in trouble and they were having to raise so much more capital, they had suffered some severe losses - the same as the loan industry had been hit hard. But in recent years the banks have come back to some extent. In fact, their share of total debt creation has picked up a little bit in recent years. So there does not seem to be a situation where you can foresee as far as the eye can see that the banks will continue to shrink. And they do have a crucial role that other financial entities do not play and that is the role in the payments system. So to the extent that they continue to be used for clearing and settling transactions, the Federal Reserve continues to have a role in that, which surely always will be the case in some way or another. I do not see that as a big risk.'

Andrews reflects his views: 'In a sense that is something that I think is absolutely core to central banking the world over. Market participants know that when a central bank says our policy rate is 'x' the flows through markets that may happen with the central bank at that rate may not be particularly large, but if they need to be the central bank could operate in other ways or in larger amounts that ensure that, so that we do not in fact need to do so. I think the fact that we have a balance sheet is pretty key.'

But Musch is not so sure. 'Credit creation passing out of the bank system into the financial markets - yes - I would strongly lean on that. Again there is nobody who wants to control credit creation. Although everybody wants to get back to proportions that we can deal with, at this precise moment, these markets are so huge, and so different, each part, that nobody has total view of them.'

How then does one get an overview, not only of all players and of their true positions, but also in a standardised reporting language? In the ACB image, single objective monetary policy does not suffice. The context needs to be one of universally floating exchange rates and of the central bank detached from financial stability procedures. For the interviewees, therefore, nothing amounted to the ACB concept, and yet to take refuge in central bank self-confidence did not seem a robust response to the problems of financial markets either.

Q15 - 17: Global Currency, No Going Back?, and Cross Party / Cross Culture.

Notwithstanding Goodhart's disputing the global explanation of modern events, he was joined by all correspondents in seeing the probable future not only in terms of a generalising of single objective monetary policy and price stability, but a substantial reduction in the number of central banks, with prominence going to the Fed, the ECB and an Asian regional bank, the latter yet to be identified!

Interestingly, none saw the USD hegemony as viable in the future. Gros, for example, speaking for a country that does not envisage dollarising, although many of its Spanish speaking neighbours have done so or are contemplating doing so: 'I do not see the dollar becoming stronger going forward. I do not see it becoming *the* currency of choice. I see more, and I think it is healthy, a multi-polar world in terms of currency as opposed to a single polar world in terms of military power nowadays.' Importantly, Volcker reflected his views: 'The US dollar is the nearest thing we have to a world currency, obviously, but can it become the official world currency? No, I don't think so. That might be considered the ultimate economic victory of the US, but I don't think it's consistent with political realities or economic capabilities.'

It comes down to cover. For Volcker, the attractiveness of the USD, for example, is bound to 'confidence in its purchasing power is relatively stable. That's what is behind the dollar now.' But to say this is to describe a generic solution – namely, any currency that achieves relatively stable purchasing power.

In Goodhart's words: '...if we can get a more sensible, more sophisticated way of getting price stability, gold will be seen as a barbarous relic unless the new sort of inflation targeting, independent central bank

strategy fails. If it fails then there will be a huge interest in free-banking with a return to the gold standard. But as long as independent central banks go on producing the goods, gold will be ignored.'

Whether or not intended, the impression given by all was that a common approach to monetary policy, both conceptually and institutionally, would provide a new hegemon. The more financial markets prevailed, the more they would pressurise countries to float their exchange rates and to adopt monetary policy that supported the floating regime. This could only be price stability. After all, if *all* countries were to float, if *all* countries achieve low inflation, and the scope for *merely speculative* gain on differences between currencies values reduces significantly.

This overall outcome not only supports the ACB hypothesis (of generalised price stability, internally by way of operational independence and externally via universally floating exchange rates), but suggests there is unlikely to be any going back.

Although Gros is cautious as regards Brazil – 'The concept of 'Can I not be just slightly pregnant?' is still very ingrained.' – Bussinger is certain: 'We will establish [a track record] and for many reasons. One is that a major cause of our domestic instability and inflation was that we were a closed economy. That is not true any longer. That makes a huge difference as we have seen many times. Any time one particular sector wants to raise their prices, there is tremendous pressure from abroad. The stabilisation is functioning. We might see volatility in inflation as we saw recently, but I think high inflation is a thing of the past in the terms of the current arrangement.'

Likewise Lundberg: 'This last devaluation group was very important for the maintenance of stability because it did not have an inflationary consequence. It is unbelievable, given what happened in the last thirty years, to see that our currency devaluation of more than 40% did not produce inflation. We will probably close the year with one digit inflation - that is unbelievable for the Brazilian scenario. This gives we economists a more confident feeling about the future. In the sense that if politicians were to do what they are not supposed to do, and start printing money, I am sure that the damage that would result would be quite less than in recent years because of the fact of the real side of the economy is more competitive, less dependent of government, more open. The cultural stability will probably expose the irresponsibility. I think that the damage that can be done by a future irresponsible government will be smaller, because the economy is stronger now, and probably will not succeed. The population will not accept it. I am more optimistic.'

According to Orr, the New Zealand situation demonstrates that to the extent that central bank independence is accepted cross party and cross culture, the clock is unlikely to be tuned back. Because of the financial markets, the causation runs 'from financial stability, to the prudential stuff we talked about, through to price stability, goal independence, flexible exchange rate. Stepping off that path is very, very costly.'

Goodhart, however, sounds a note of caution. He would like to think there is no going back, but worries that 'we have had a relatively benevolent, probably somewhat fortunate world economic context for the last ten years and there are lots of things that can go wrong, badly wrong. Maybe on the deflationary side as much as the inflationary side. To assume that every thing is going to be fine from now on would be hopelessly optimistic. The problem is one cannot foresee the shocks. If one could foresee the shocks one would be able to take steps to prevent them and therefore it would be alright. It is because one does not know what is going to hit one, that one cannot be confident that a regime will succeed.' He also makes the point that political life is not fixed: '...who knows what different parties may develop. The present structure of parties is again an ephemeral exercise. People's minds and ideas change.'

This remark is interesting in the ACB context because it suggest that it is not so much the economic wisdom underlying modern developments that is at issue, but the consequences these have for prior concepts and constructs in the political world. Hayek pointed out that the denationalisation of money would entail much political change. It is perhaps here that the dissimilarity will arise, rather than in economic matters. The issue is in that sense not of the viability or relevance of modern developments (and their approximation to the ACB theorem) but of how to envisage and then manage the political change it presupposes.

5.4 Chronologies of Financial Liberalisation and Regulatory Change

The aim of these chronologies is to provide an additional dimension by way of supporting information. They derive from detailed histories of the context of each main case study institution. Presented in chart form, they provide an overview of the way in which financial liberalisation and regulatory change took place in the countries concerned during the period studied in the research. This period is 'book-ended' by two general assessments of the situation in 1973 and 1996, taken from Williamson and Mahar (1998) reproduced in the table below (excluding column 7), in which 'repressed' and 'liberalised' mean, respectively, 'all decisions ... made by government' and 'any remaining government role [is] vestigial.' (4) The assessments indicate a general trend, shown by the 'eyeballed' aggregation in the additional seventh column. In all cases some information prior to 1973 is provided and in most cases information since 1996 also.

Country	Dates	1 Credit Controls	2 Interest Rates	3 Entry Barriers	4 G. reg. of Ops.	5 Privat-isation	6 Int'l Capital Flows	7 On Balance therefore
BZ	1973	R	R	R	-	PR	R	R
	1996	PR	LL	PR	-	PR	R	PR
NZ	1973	R	R	R	-	PR	R	R
	1996	L	L	L	-	L	L	L
US	1973	B:L; S&L:R	LL	PR	L	L	LL	LL
	1996	L	L	LL	L	L	L	L
UK	1973	LL	B:LL	B:LL	L	L	PR	LL
	1996	L	L	L	L	L	L	L

R = repressed; PR = partly repressed; LL = largely liberalised; L = liberalised.
B = Banks; S&L = Savings and Loans.

Table 5.4: History of Financial Liberalisation 1973 – 1996 (Williamson and Mahar, 1998)

5.4.1 Findings

See Charts 5.9 – 5.12 on following pages.

Chart 5.9: Chronology of Financial Liberalisation and Regulatory Change - Brazil

Date	'Event'	Comment
1945	Sumoc founded	
1945	CMN established	Responsible for monetary and exchange rate policy; composed of 5 ministers, 8 chairs of federal financial institutions; chair = MoF
1945-65		Very much dependent central banking
1964	Banking Law	
1965	BCB founded	
1965-7		Brief central bank independence, then Constitutional amendment made Board appointed by President
1971	BCB can issue federal public debt	
1973	**Repressed**	
1974	Entire board dismissable by President	
1980s	Capital outflows restricted	
1984	FX controls abolished	
1986	Reforms began	
	- end of Movimiento Account	
	- Banco do Brasil commercial only	Previously also able to issue money
	- no federal government debt	
1988	New constitution	Increased power of Congress
	- to enact new banking law	Article 192, not yet promulgated
	- facilitate foreign banks in Brazil	
	- credit cooperatives become banks	
	- delineate banks from insurance	
	- charter financial institutions	
	- central bank not finance government	Neither directly or indirectly
	- interest rate max set at 12%	
	Some loan rates liberalised	
	Reserve requirements rationalised	
1989	Deposit rates liberalised	
1989	Start of liberalisation generally	
1990s	Capital inflow controls strengthened; outflows loosened	
1991	Entry barriers reduced	
1994	Start of financial liberalisation	
	- Real introduced	
	- reduce number on CMN	Increased power of BCB governor
1996	Retained strong capital controls	
1996	**Partially Repressed**	
1999	Real floats; Inflation target on course	

Chart 5.10: Chronology of Financial Liberalisation and Regulatory Change – New Zealand

Date	'Event'	Comment
1933	RNZ founded	
1936	Nationalised by Labour	
1938	Exchange rate controls introduced	
WW2	Banking regulation introduced	
1950	National Government gave priority to price stability	
1958	Philips Curve = inverse relationship inflation:unemployment	
1960s	Banking regulation relaxed	
1960	Labour – price stability made secondary	
1964	National – no real change	
1970s	Price and quantity controls	
1972	Labour = 'Full Employment'	
1973	**Repressed**	
1976	Considerable financial liberalisation.	No interest controls
1980	Financial liberalisation reversed	
1980s	Exchange rate controls removed	
1982	Interest rate controls reintroduced	Inviting capital outflows
1984	FX crisis due to capital outflows; exchange rate very overvalued - NZD devaluation	
1984	Start of liberalisation generally - credit allocating guidelines removed - reserve requirements for trading banks removed - interest rate ceilings lifted - access by foreign banks allowed - foreign exchange controls removed	
1985	Start of financial liberalisation - March NZD floated (remained so ever since) - no requirement to buy government securities - outward capital flow controls lifted - eased controls on FDI, portfolio investment and repatriation of profits - unlimited entry of domestic and foreign banks	
1986	Stock exchange liberalised	
1987	Financial desegregation	
1988	Labour give primacy to price stability	
1989	RNZ Act	
1990s	Bank of New Zealand privatised	
1992	Completion of bank privatisation	
1994	Fiscal Responsibility Act	Transparency and normal financial principles
1996	New banking legislation	Public disclosure
1996	**Liberated**	
1998	Election with PR; price stability non-debate	
1998	OECD endorsement	
1999	IMF endorsement	

Chart 5.11: Chronology of Financial Liberalisation and Regulatory Change - US

Date	'Event'	Comment
1933	Banking Act (incl. Glass-Steagal Clauses)	Segregate banking and securities, introduce deposit insurance; strengthen Fed as supervisor
1951	Fed adopts independent policy	
1950s	Consumer time certificates	
1953	Interest Equalisation Act	To restrict foreign bond buying and therefore capital outflows
1956	Bank Holding Company Act	
1960	Bank Merger Act	
1960s	Eurodollars	
1960s	Credit Cards	
1960s	Leasing	
1960s	Federal funds	
1960s	Repurchase agreements	
1961	Certificates of deposit (CDs)	Per Citibank; circumvent RQ = capped interest rates on time deposits
1963	Int. equalisation. tax led to eurosecurities market Voluntary foreign credit restraint program = FDI Program	
1964-8	Voluntary Foreign Credit Restriction Act	Allows US banks to go overseas; foreign banks into US
1970s	Variable rate term loans	
1971	Closing of gold window	
1972	NOW accounts in Massachusetts	('negotiable orders of withdrawal')
1973	Start of financial liberalisation	
1971-3	Abolish CD restrictions	
1973	Wild card experiment	CDs
1973	**Largely Liberalised**	
1974	Remote Service Units (RSUs)	
1974	Abolition of international capital flow controls	
1975	Start of derivative markets	
1975	Variable rate mortgages in California	
1978	CAMEL	Capital adequacy test
1978	Federal authorisation for bank and thrift issue of Money Market Certificates	
1978	International Banking Act	To level field between US and foreign banks
1979	Federal authorisation for bank and thrift issue of Small Saver Certificates	
pre 1980	Carter deregulate airlines	
1979-80	High and volatile interest rates	S&Ls could not compete
1980	Depository Institutions Act	
1980	Reaganism, etc.	
1980	Swaps	
1980	Depository Institutions Deregulation and Monetary Control Act (DIDMCA) - Federal NOW accounts - reserve reqquirements to wider banking - created DIDC - began RQ deregulation	
1980	DIDC no time deposit differentials between banks and thrifts	
1981	Note Issuance Facilities (NIFs)	
1981	DIDC adopts int. rate ceiling phase out schedule	
1981	Invalidated by US District Court of DC	Why?

1981	Economic Recovery Tax Act	Tax relaxations on savings
1981	DIDC starts to lift interest rate ceilings	
1981	DIDC postpones further lifting	
1981	minimal capital adequacy set by Fed	
1981	Interest rate swaps begun	
1982	NY first state to allow cross border	
1982	S&Ls deregulated	
1982	RQ suspended	
1982	Garn-St. Germain Act	Start of thrift deregulation
1982	DIA	Deregulate thrifts
1982	Currency options	
1982	Start of liberalisation generally	
1982	DIDC adopts new phase out schedule	
1983	Forward rate agreements (FRAs?)	
1983	Introduction of Super NOW accounts	
1981-7	Relaxation of Glass-Steagall Act	Desegregation of banks:nonbanks (Khoury 57-8)
1986	RQ buried	
1987	Fed allows Section 20 companies	Banks enter capital markets via affiliates
1989	Basle Accord adopted	
1995	Interstate bank regulations eased	
1996	**Liberalised**	

Chart 5.12: Chronology of Financial Liberalisation and Regulatory Change - UK

Date	'Event'	Comment
1946	Nationalisation of the Bank of England	
1950s	Euro markets	To get round RQ and RD,[122] and capital controls
1960s	Sterling interbank deposit market	
1968	Sterling CD market	
1971	Interest rate ceilings scrapped reserve requirements retained bank rate retained Competition and Credit Control	
1973	Start of financial liberalisation	
1973	**Largely Liberalised**	
1973-5	Secondary markets crisis	
1976	TSB Act	
1978	TSB Act	
1979	FX purchases controls lifted	
1979	Banking Act	Defines meaning of 'bank'
1980	FX purchase controls eliminated	
1981	Desegregation of housing finance	
1981	MLR lapsed	To be guessed at
1981	Reserve assets ratio abolished; replaced by 0.5% liquidity requirement	
1981	Start of liberalisation generally	
1982	HP abolished	
1982	LIFFE established	
1982	BoE Supervisory Note	Liquidity per case
1983	self imposed interest rate cartel abandoned by building societies	
1984	Financial Services Act; SIB with 6 SROs	
1984	JMB collapse	
1984	Child report	Deregulate payments
1986	Government guidance on mortgage lending abolished	
1986	Sterling commercial paper market begins	
1986	'Big Bang'	Government promoted
1986	Building Societies Act	
1987	DTI seeks rules on securities businesses	Shift to capital adequacy
1987	Banking Act	Notify large exposures; depositor protection
1987	Cooke Committee proposals	Capital adequacy
1988	TSB Act	
1991	BCCI	
1993	Roll Report	
1996	**Liberalised**	
1997	Central bank independence	
1998	Bank of England Act	
1998	SIB = supervision	

[122] RD = Reserve Requirement.

5.4.2 Initial Analysis

Table 5.5 summarises the overall change from 1973 – 1996. Lines 1 and 2 are from Column 7, Table 5.4. Line 3 expresses this in terms of Wiliamson and Mahar's 4-step gradation. This shows that in all cases there was a decrease in repression (increase in liberalisation). Using Williamson and Mahar's four-step gradation, there was a one-step increase in three out of four of the cases, but a three-step increase for New Zealand.

This measurement disguises the situation, however. The more important observation is that three of the four cases achieve liberalisation by 1996, with New Zealand doing so in a more compact time frame and with something of a 'quantum leap'. Brazil is the 'odd man out' insofar as, though going in the same direction, it falls short of liberalisation.

Since financial liberalisation and regulatory change are important components of auditorial central banking, all cases can be said to approximate the model, therefore, except Brazil, which tends towards. This is said, however, mindful that this information is not precise, but that the findings from the chronologies only have secondary status.

	BCB		RNZ		FRS		BOE		ECB	BIS
1973	R	0	R	0	LL	2	LL	2	-	-
1996	PR	1	L	3	L	3	L	3	-	-
Gain		1		3		1		1	-	-
=		T		A		A		A	-	-

M = matching , A = approximating, T = tending towards, D = diverging from the ACB model.

Table 5.5: Chronologies - Results

5.5 Analysis

The aim of analysis is to demonstrate by rigorous thinking (the scientific method) that the evidence used - broad-based and sufficient in 'quantity' - supports the hypothesis of the research so that the conclusions are compelling (Yin 103). To this end, as discussed elsewhere, a causal analysis was considered, but not pursued because all attempts to structure the research in that way proved indeterminate and because it was not felt apt to the research topic (see Sections 1.4 and 2). Instead, the methodology of multiple case study was chosen as an equivalent procedure for establishing facts independently of the investigator.

Accordingly, the analysis took as its main focus the ACB model, comprising structure and accounts, and the interviews, with the chronologies playing a supportive role.

5.5.1 Analytical Strategy

Multiple case studies use three main modes of analysis:

- Three types of *pattern matching* comparing empirical findings to a predicted theory or pattern: non-equivalent dependent variables, rival explanations, simpler patterns.

- *explanation building*, an iterative process that goes back and forth between theory and findings, with the consequence that the ultimate explanation is unlikely to resemble the initial statement.

- *time series*, a sequence of events that gives different values to variables over time. These can be simple series that match theoretical projections to actual trends, for example, or chronologies which compare actual to predicted events such that their sequencing is irreversible and or contingent.

As a form of experimentation, pattern matching was chosen. Although aspects of the other approaches played a part, neither was deemed a good fit in itself. While the chronologies provided important data in terms of both the contingent and (presumably) irreversible nature of financial liberalisation and regulatory change, and in that sense had the quality of time series analysis, this information and this type of analysis were considered of secondary value.

Of the three types of pattern matching, the 'rival explanations' approach was ruled out because none of the three alternatives amounted to a mutually exclusive independent variable, while 'simple patterning' was deemed insufficiently thorough. The analytical mode of 'non-equivalent dependent variables' was used, therefore, here meaning that the ACB model consisted of a range of predictable outcomes (the 'features' and the accounts).

5.5.2 Replication Logic

Pattern matching has implications for replication logic. Yin (109), refers to two types: *literal replication* operates when the research predicts the same outcomes, and *theoretical replication* when it anticipates contrasting outcomes for predictable reasons. Since theoretical replication operates only when rival hypotheses are being tested, this research used literal replication.

To be analytically sound, literal replication requires a 'more the merrier' outcome in terms of the ability of evidence to bear the interpretation (internal validity). This means the greater the matching within a

case and the greater the matching of cases as a whole, the more secure the generalisation and the more robust any conclusions drawn.

In this case, the pattern to be matched was the ACB model, itself an expression of the hypothesis. Devised as a heuristic device, the model was used as a predictable pattern (principally consisting of the set of features and the accounts template), which, if the hypothesis were true, would be matched in *n* cases. If two or more cases matched the model, good replication could be claimed.

5.5.3 Convergence (Triangulation)

To complete the analysis the findings were converged or 'triangulated', a process designed to see if 'a hypothesis can survive the confrontation of a series of complementary methods of testing...' (Burgess, 1993:144), thus enhancing analytical rigour. By this means, 'the potential problems of construct validity can also be addressed, because the multiple sources of evidence essentially provide multiple measures of the same phenomenon.' (Yin, 92.)

In this research, the phenomenon was auditorial central banking as characterised by the features of the model (the variables), in a range of instances (the cases). The complementary methods of testing used to investigate the six cases were their examination from four points of view – structures, accounts, interviews, and chronologies.

The findings were measured in terms of matching (M), approximating (A), tending towards (T), and diverging from (D) *n* variables:

Test	*No. Variables*	*Type of Variable*
Structure	37	Constitutional, institutional, and operational features
Accounts	12	Relationship to money flows
Interviews	17	Operating precepts
Chronologies	1	Increase in financial liberalisation

Not being a quantitative study, the final results were achieved by 'eyeballing' rather than, for example, statistical weighting, with any doubt or borderlineness being marked down rather than up:

On this basis, the following results were obtained:

	BCB	RNZ	FRS	BOE	ECB	BIS
5.1 Structure Constitutional, Institutional and Operational Features	T	A	T	A	A	A
5.2 Accounts Income and Expenditure Statements and Balance Sheets = Relation to Money Flows	D	T	D	T	T	-
5.3 Interviews Central Bankers' Interpretations = Operating Precepts	T	A	A	A	-	T
5.4 Chronology Increase in financial liberalisation and regulatory change	T	A	A	A	-	-
RESULT	T	A	A	A	x	x

Table 6.1: Converged Results

The bottom row, Table 6.1 shows the results concerning Proposition 3, namely, whether the cases are (are not) instances of auditorial central banking. The focus is on the four central banks that existed during the period researched. The lack of information in the cases of the ECB and the BIS was due to the incompleteness of these cases in terms of the four different examinations, although both record a mix of approximation and tending towards, a result that reflects that obtained in the four main cases.

Of the four main cases, three approximate the model and one tends towards. None match, of course, because the model refers to a theorem rather than current practical arrangements; yet none are divergent. In Yin's terms, therefore, the fact that three of the four main cases approximate the model demonstrates good support for the ACB hypothesis.

5.5.4 Generalisation

Sayer (1997) defines generalisation as 'an approximate measure of the numbers of objects belonging to some class or statement about certain common properties.' (100) In this research, the 'class or statement about common properties' was the ACB model, the 'objects' were the case study institutions, and the 'approximate measures' were those set out in Section 5.5.3. Since sampling, surveys, and other techniques that lend themselves to statistical generalisation to larger universes were not used, generalisation is from particular sets of results to a broader theory.

It is sometimes said that a multiple case study requires 'an explicit defence against the allegation that you cannot generalise from case study findings.' (Denscombe: 36) While this argument holds for *single* case studies, from which in the nature of things it is difficult to generalise, multiple case studies are not of the

same order. Their results can be generalised, provided the cases are representative, generalisation is made to theoretical propositions rather than universes, and the researcher is aware that 'the validity of [any] extrapolation depends on the cogency of [his] theoretical reasoning' (Mitchell 1983:91).

As regards *representativeness*, as noted in Section 2.5.1 and 2.5.2, the selection of cases was designed to ensure they were generally representative of the subject being studied, and typical rather than idiosyncratic. Concerning *generalising to theoretical propositions* rather than universes, after Yin, the cases studied were conceived as 'multiple experiments [subject to] analytical generalisation, in which a previously developed theory [was] used as a template with which to compare the empirical results of the case study.' (32) *Validity in extrapolation* and *cogency of reasoning* turn on the relevance of this study's guiding theorem and its effective use of case study methodology. Its purpose has not been to consider the emergence of auditorial central banking in terms of single or simple causation, but to understand it by reference, on the one hand, to a particular set of thoughts (the ACB theorem) and, on the other, to a representative and varied range of cases. The validity and usefulness of the study rests, therefore, on the explanatory viability of the theorem and the cogency of reasoning whereby the facts of the matter were adduced and organised. By cogency is understood the characteristic of relating the theorem to real world events in ways that are self-supporting, so that the evidence tells its own story. To the extent that the story is true - that is, that the hypothesis is shown to be valid – this process supplants or modifies the original intuition behind the research.

While none of the cases studied exactly matched the ACB model, this is neither surprising nor negative, since the model represents a theorem not a practical example, and theorems are not disproved by the absence of manifestations of them. Moreover, as Sections 3.3 and 4.1.1 showed, no single - let alone simple - definition of central banking exists and even the consensus view of operational independence has shades of meaning. In addition, while the cases exhibit considerable diversity in terms of their origins, histories, and immediate contexts, they shade into one another at the international level and where they interface with the financial markets. The emergence of global finance clearly calls for a common approach, witness the standardising of reporting methods and requirements.

The results are perhaps better described as *patchy*, therefore, since all the central banks studied have accepted the consensus view on operational independence and the economic considerations that underpin it, and all are aware of the issues involved in opening out into an increasingly global economic life. Their concern is how to get the understanding and support of their electorates for these views, so that the latters' behaviour reflects them, especially by becoming innately non-inflationary.

The conclusion reported in Section 6.4 needs to be considered with care, therefore, and 'patchy' is a carefully chosen word. The idea behind the research was not that auditorial central banking would represent central banking in its current *format*, but that as a theorem or set of concepts it would throw light on current *developments* within central banking. In this respect, the results show that, radical or not, many features and trends in central banking do in fact comport with the ACB concept - see Section 6.2: Interpretation of Results. A glance at Table 6.1 as a whole shows there is a high degree of approximation

of and a clear tendency towards auditorial central banking, but that divergence occurs in two main respects: governmental control (be it direct or indirect) and sole money issue and seignorage. It hardly needs saying that these are connected – the control by government tied to seigniorage capture (see discussion in Section 3.1.9). However immutable it may seem and no matter how used we are to it, such a state of affairs only represents the latest stage in the history of seignorage, a condition that could well be overtaken by events, especially if electronic issue increases at the same time as the currency element in the monetary base decreases. The prospect of profound change in this regard should at least be thought through, therefore.

6: DISCUSSION

After considering the limits of the material, this section discusses the results of the research, before 'revisiting' the starting theory. It then considers the replicability of the Bank of England.

6.1 Limitations of Material

The material used to conduct this research has evident limitations. First of all, the scale of the project invited unwieldiness. Secondly, the section on structures entailed a comprehensive list of features that had inevitably to be streamlined in order to meet the general constraints of a dissertation. The interviews presented the usual concerns about bias, mistranscription and injudicious editing, while, again, the mass of material required considerable reduction in order to be of use in this report. Lastly, the chronologies are inevitably simplified expressions of very complex processes.

These negative aspects were weighed in the overall scheme of things, however, and the view was taken that they would be a worthwhile trade-off for the denser and richer information that would be derived. Moreover, a trawl of the many detailed aspects of so huge a topic as modern central banking seemed ineluctable, if, as was the intention, the subject was to be given comprehensive treatment.

6.2 Interpretation of Results

This research asked a number of questions concerning the nature of modern central banking:

Have central banks responded auditorially to the globalisation of economic life?

Is auditorial central banking implicitly or explicitly present in existing arrangements?

Does auditorial central banking occur in different circumstances?

Is auditorial central banking predictable?

Interpreting the results from this point of view requires caution, since the ACB concept entails a radical approach to modern economic life, ranging from concepts through policy to practical arrangements and care should be taken not to draw premature or simplistic conclusions. As noted in Section 6.4, the patchy result does not mean that the ACB hypothesis was disproved, and Section 5.3.4 touches on many issues that warn against too black-and-white an interpretation. Not only did all cases provide it with some support, but the meaning of the concept was often misunderstood or the phenomenon to which it refers was known by other terminology.

Much, of course, turned on what was understood by auditorial central banking and the terms used to describe it. As originally expressed, the concept was abstract and intuitive: *the central bank operating as a direct agent of society, answerable to parliament (or its equivalent), independent of both government and financial institutions, and enjoying both instrument and goal independence.*

But as the research progressed and the concept was used to investigate and comprehend modern central banking in considerable detail, a two-way process came about whereby, on the one hand, elaboration of the concept made it less abstract and, on the other, the cases showed that in certain respects they did in fact approximate the ACB idea. At the interface of theorem and reality, therefore, an osmotic process gave rise to a refinement of language. In this sense, while the ACB concept took on much of the colour of today's events, they in turn provided evidence of the explanatory usefulness of the theorem.

General

In all cases there was a general consensus to maintain or work towards operational independence. However, the manner in which this could be done varied according to the culture, history and political configuration of the case study country. All interviewees reported growing public awareness and acceptance of the concepts of operational independence and price stability, but recognised that this relies on education and generational change, not least the preference for such things that a prolonged experience of them can be expected to engender. In Brazil there is the additional need to secure *de jure* central bank independence.

Predictably, perhaps, most respondents agreed with the combination of discretion and rule and the image of the central bank acting in a systemic capacity. To be expected, too, was a general image of the central bank as agent of government in the conduct of monetary policy, although there was clearly a debate as to whether supervision needs to remain in the central bank.

The Meaning or Use of Words

Typical of the problem of how words are meant is Keynes's assumption that the 'controlling authority' has to be the state. A more general example, however, was the use of government as a synonym for society as a whole (see discussion concerning Fischer in Section 3.2.1), whereas under modern conditions the reality is often otherwise – 'government of the day' referring to those, often an electoral minority, currently in power.

The concept of auditorial central banking was often misread because many thought it envisaged the central bank as independent of the political process altogether, whereas it is about the bank being responsible to parliament rather than the government of the day. Evidence that this is not a bizarre concept is readily found: Writing in the 7 February 1994 edition of *The House Magazine*, which was devoted to the question of central bank independence, Lord Kingsdown noted with approval that the 1993 TSC report argued that 'the Bank of England's basic objective of price stability would be set by

Parliament; any shorter-term objectives would be approved by Parliament; and the Bank would be accountable to Parliament for its success or otherwise in meeting the objectives.'

Understandably, therefore, responses to the prospects for auditorial central banking usually began negatively. In the UK case, absolutely so, inasmuch as the recent Bank of England Act seems to preclude it. But in the cases of Brazil, New Zealand and the US, only initially. When the meaning of auditorial central banking was fine-tuned, it became clear that in the case of the US something of this kind already exists, if not in name then in convention. In New Zealand, the relationship of the central bank to the government represents a clear, and so far viable, division of labour, with central bank independence being an established cross-party approach, which is another way of saying Parliament. In Brazil, central bank independence will need presidential patronage until it becomes statutory, but it appears that Brazilians remain 'hungry for stability and legality'.[123] The main question is how long will it take to change the culture of the Brazilian Congress. The discipline of a floating exchange rate regime, however, represents a kind of bridgehead and it is difficult to imagine a return to intervention in the pre 1994 manner. Nor, it seems, do Brazilians want to go the path of dollarisation.

Why not Parliament as the Principal?

As noted earlier, a crucial part of ACB theory that was not accepted is the distinction between the central bank reporting to parliament rather than the government of the day. Not surprisingly, this would amount to a major change of paradigm, since it would entail many other changes in the perception and role of central banking, as, indeed, of the economic aspect of government altogether. Even so, the idea is not remote from reality, as the consideration of Fischer's modern central bank charter made clear. Moreover, reporting to parliament is common practice: the British parliament has its Treasury Select Committee, for example, while in the US the Fed reports to Congress, not to the President. The difference lies more in whether the central bank reports as an agent of government or in its own right. In other words, the issue is whether parliament can be seen as the principal, a shift in emphasis that would be felt much more in terms of our understanding of finance than in terms of procedural change.

Main Divergence concerning 'Own Right'

Clearly, then, the main divergence concerned the notion of the central bank as a societal agent in its own right reporting to parliament (a la judiciary). But this, too, depended on the image the respondents had of what is proper' in a democratic society. Volcker's remarks are worth repeating in this regard: 'The accusation that [the Fed] is undemocratic I think relies upon some unreal description of democracy..., that somehow all decisions have to be made, if not by referenda initially, then by an elected officer. In the US we consider ourselves a great democracy, but the Supreme Court is not exactly democratic from that standpoint... It is an important institution. It is in the constitution, unlike the Federal Reserve, and it is outside the normal democratic process, defined as direct responsibility to an elected official. So to some extent is the Federal Reserve.'

[123] Quoting Normal Gall, director of the Fernand Braudel Institute in Sao Paulo, interviewed in 1999.

Division of Labour

To this is connected another important consideration. The notion of principal/agent is about division of labour, but the issue may have been miscast. For example, its operational independence notwithstanding, the 1998 Bank of England Act clearly intensifies the concept of the Bank of England as an agent of government. This is based on the notion of a division of labour between government as goal setter and central bank as implementer, which is understandable as a *political* description of the government as principal and the central bank as agent. And yet the reliance placed on the expertise of the MPC members in the case of monetary policy is in reality a division of labour between political authority and economic expertise, and it is surely debatable whether in monetary matters the first is superior to the second. In this arena, can it not also be said that expertise is as representative of the people as electoral representation, the more so when, as in many democracies, the reality is often that minority interests achieve majority control, either because of representational arrangements or voter apathy?

For example, what would happen if a government set the inflation rate target at 15%? The central bank would in all likelihood distance itself from such a decision and, indeed, find it difficult to implement. But would the electorate not also baulk at it? In other words, when the government sets the target at 2.5%, say, is it not in fact taking its cue from economic, rather than political imperatives? Is it not setting a goal that is already implicit in social reality, reflecting, therefore, rather than setting that goal? It is in this sense that one of the respondents to Mahdeva and Sterne's (2000) recent survey wryly observed, 'What good is instrument independence if the Parliament or Cabinet sets politically motivated goals that are binding?' (111) The goal has also to be economic and cross-party.

Furthermore, not only in the case of the Bank of England but in central banking generally, in spelling out the social context and contractual basis of the central bank's role, even though the government may continue to determine its membership, is the process not akin to job description, so that in the end the nature of a task and the requisite skills to give it effect decide how it is carried out and by whom? Here, too, causation is reversible, so that political appointments can as easily represent acquiescence to economic imperatives as, in the traditional view, assertions of political prerogative. In short, is the substance all it seems to be?

Financial Liberalisation and Regulatory Change

Although the purpose of the chronologies (Section 5.4) was to chronicle events rather than prove a theory, Table 5.5 makes clear a number of points. Firstly, there is a general trend of increasing financial liberalisation. Secondly, that the US and UK lead the field. Thirdly, Brazil lags behind the Anglo-Saxon cases for the reasons given in the interviews.

The western predominance is not surprising, of course, since financial liberalisation is often a condition of lending by the West. However, care is required when interpreting its larger historical meaning. Do financial liberalisation and regulatory change merely represent an Anglo-Saxon preoccupation unfairly

imposed on others, as many argue, or do they reflect the globalisation of economic life? In other words, is their prevalence a result of some latter day imperialism or the result of countries generally opening out into the global economy?

The research suggests that where any country, and therefore its central bank, opens up to the global nature of modern economic life, it will adopt increasingly homogenous policies and practices as regards monetary policy (beginning with those associated with operational independence), become increasingly indirect in its modality, shadow if not adopt outright a floating exchange rate, and shift towards 'light touch' supervision of financial institutions (if it retains this function at all). It will in addition become party to the many wider social changes that such concepts entail.

Central Bank Independence as Staging Post

Overarching this discussion is the question whether the continuing globalisation of economic life – of which virtual finance is a signal feature - will allow the strong link between the government and monetary affairs that narrow central bank independence entails.

In many ways, this is a debate about regulation of financial markets, with operational independence designed to facilitate a division of labour between the markets as drivers of prosperity and central banks as government agents concerned to keep the playing field as level as possible. There seems to be a contradiction here, however, between reinforcement of the central bank as an agent of government and the liberal philosophy that supposedly underlies operational independence. It is not clear, therefore, how monetary policy independence in the context of otherwise increased government determination of economic policy squares with minimising the state's role in economic life.

It is this discrepancy that leads one to wonder if central bank independence can rest in itself, or whether it is but a staging post. Its introduction not only usually requires significant legislation, witness the Bank of England Act 1998, but also its effects are (and are intended to be) wide-ranging. Understood as an essentially liberal concept, its introduction into statist contexts is one thing. But the more extensive its application and the greater its cross-party and general acceptance by electorates, the more it can be expected to give rise to similar conditions and thus to homogenised monetary policy techniques, especially those associated with price stability.

One is prompted to ask, therefore, if the central bank qua regulator is not becoming anachronistic in a world of virtual finance and of financial markets decreasingly susceptible to central bank actions. Indeed, envisaged as emergent auditorial central banking, do current events not amount to some kind of midway, indeed transitional, concept between central banking and free banking?

Summary

In sum, a strict answer to the research questions is that 'patchy' is a way of saying that auditorial central banking represents the underlying trend, so that, while no case exactly matched the model, all had elements of it, some more explicitly than others, and none provided a complete refutation. Moreover, the range of cases studied shows that auditorial central banking occurs in different circumstances, suggesting it holds sway wherever national considerations give way to global ones.

As to its predictability, it is clear that, *given two specific conditions*, any central bank will behave in an auditorial way: Firstly, the adoption of operational autonomy - setting short term interest rates so that market forces, working through the price of money, determine credit and thus the overall money supply, thence price stability – along with the wide range of constitutional, political and behavioural changes that such a procedure implies.

Secondly, albeit a moot and controversial point on which the jury of history is still out, acceptance of central bank independence entails an historical momentum of its own. That is to say, central bank independence implies a revised image of the state's (reduced) role in economic life generally and in monetary affairs in particular. This image will become practice through the generalised adoption of narrow central bank independence (operational autonomy and *single* independence), which tends out of its own nature towards wide central bank independence (operational *and* goal autonomy and *double* independence).

6.3 The Relationship of the Results to the Guiding Theories

How do the results stand in relation to the guiding theories? The main question to be considered, is whether the findings demonstrate the cogency of the ACB theorem: namely, that the abandonment of the gold standard, even in derivative form, calls for deliberate and scientific understanding of its 'automatic' workings, and that the globalisation of economic life and the rise of virtual finance have not only led to the central bank becoming an 'above the fray' institution, entailing operational independence in regard to monetary policy, but are ultimately leading to the wider concept of auditorial central banking.

As the topic survey showed, of three potential alternative explanations of central bank behaviour since 1973 – alternative monetary authorities, monetary reformism and free banking - the only concept that seemed appropriate to the globalisation of economic life was that of free banking. Instances of this do not exist, however, largely for the reason that free banking is regularly dismissed almost out of hand and often on the circular grounds of the 'failure' of the few examples that did exist, as if this had nothing to do with forces seeking to centralise finance.

Free banking apart, therefore, the validity of the ACB hypothesis rests on the support or otherwise it receives from central bank behaviour since 1973. In this regard, although the research reports a patchy

'presence' of auditorial central banking, the discussion in Section 6.2 shows that many of its features are in evidence, suggesting that ACB theory comports with key underlying trends in economic evolution.

Neither the ACB theorem, nor Keynes's *Tract* for that matter, seems to have been disproved as a piece of economics. In all the cases considered, the issue was whether and how political realities will adapt themselves and, within that, whether with the forward movement of time mature financial behaviour will grow up. Combining the images of Gros and Musch: How long before individual financial behaviour and its aggregate in the form of the financial markets matures enough to obviate the prince's enlightened presence with his avuncular surveillance of the punch bowl? This seems to be a question of direct education about monetary policy, education through circumstances, especially price stability, and generational change. It is also probable that the general globalisation of economic life will be a *force majeure* source of change.

In short, the results bore out the relevance and usefulness of the guiding theories but highlighted the political and financial-cultural changes that its practical interpretation entailed. The question became how to 'locate' the ACB concept in the practical realities of the countries concerned. In other words, how to express it in terms of policy recommendations – see Section 7.1.

How Theories differ post Research

As a result of the research, it does not seem warranted to modify the ACB theorem (or that of Keynes) as regards its essential heuristic features. The idea of three main elements, which, treated as a threesome, can have an orientating or ordering effect in the real world proved to be an effective investigative framework. The question was more how to understand these elements in terms of a coherent and shared vocabulary, so that auditorial central banking could give a useful nudge to history, providing 'trim tabs' that facilitate healthy evolution, rather than, as many are beginning to do, challenging current realities head-on.

Modifications to the theory, therefore, are more in the nature of refinements to its expression. The term 'auditorial central banking' is the major consideration here. Admittedly awkward, it was instead of such earlier expressions as 'CBI^2', 'heightened central banking', and 'Thorntonian central banking'. What is important is not the word itself, but the phenomenon it refers to. A better word would be welcome and is still being sought.

More generally, the idea of auditorial central banking is not some great change in the known landscape, so much as a shift in perspective consequent on a change in the standpoint of the viewer. The area of change is not, therefore, the elements under scrutiny so much as the relationship between them and between them and the observer – the individual economic actor. Fine-tuning the language of ACB theory so that it comports with how central banking is generally discussed is an important consideration, therefore, provided the nuance it brings is not thereby lost to view.

6.4 The Replicability of the Bank of England

The research considered two specific questions in regard to the Bank of England:

- *Is the Bank of England representative of auditorial central banking?*

- *Is the Bank of England's evolution replicable beyond the UK context?*

The first of these questions is answered in Table 6.1, Section 5.5.3, namely, the Bank of England approximates the ACB model. This finding corroborates Volcker's commentary, which he saw as a negative, but which in ACB terms does not appear so. Moreover, the case of the Bank of England raises two intriguing points. First, New Labour's changes in 1997 seem to be cross-party. Despite a search for differences where none perhaps exist, the April 2000 Conservative Party review of the Bank's independence amounted to a refinement and enhancement of what New Labour had put in place, and there has been no dissenting on the part of the Liberal-Democrats. It is unlikely that a change in electoral fortunes will undo the Bank's independence, therefore.

Second, is the recent underlining of the Bank as the monetary policy agent of government as cast in stone as it seems? Notwithstanding the strong hand of government in the *present* arrangements, might this be a stage designed first to establish a clear basis for the Bank's main focus on monetary policy and then, once that is in place, to allow the government to relax its grip? As discussed elsewhere, when the focus is on achieving low inflation and the appointees to the MPC are chosen to meet this end, is this not to allow an economic imperative to displace politics? Which government is going to argue for any rate substantially higher than 2.5% other than in abnormal circumstances? In short, the landscape that belonged to defeating inflation is not the same as that in which we find ourselves once inflation has become generally low and operational independence has become the generally accepted basis for the conduct of monetary policy.

Review of Central Banks

The second question was asked because the Bank of England, the 'mother' of central banks, finds itself at an important point linked to the fortunes and future of sterling. Of course, if the pound is subsumed in the euro, the Bank of England will become a satellite within the ESCB and much of what is said below serves no purpose. On the other hand, because of the specific nature of the Bank of England, were it to prove replicable, even within the ESCB, this would have great importance in the field of central banking.

This question does not derive from financial jingoism, the vestiges of imperialism, or a hankering after the 'old days', but from the fact – to which this research attests - that, even though there are very few central bank models, great change is afoot, involving a review of what it is appropriate for central banks to do. In essence, should they remain dependent in the sense of acting as clear agents of government with meaningful tasks and objectives, not only as the banker to government, but as its agent in the implementation of wide ranging economic policies? Or should the central bank be reduced to the conduct

of monetary policy in the very focussed sense of short term interest rate setting to achieve a low rate of inflation? Moreover, should the evolution of central banking stop at such single independence, or continue into double independence, as ACB theory would have it do? Or will central banks give way to some kind of free banking as the inevitable structural and technical response to virtual finance?

Moreover, in this general context there are further questions. Should the central bank supervise financial institutions? Should it retain its monopoly money issue status with all the implications this has in lender of last resort and seignorage terms, and, if so, by fiat or by contestability? And should it have goal as well as operational independence, as it would have to have were floating exchange rates universalised? Furthermore, should its monetary policy discussions become public along with the decisions? Should decisions be consensual, or should the procedure be independent voting with, presumably, the governor having the casting vote?

Models

In this greatly changing landscape there are few models. Given that most central banks are modelled on those of once imperial powers with a subsequent overlay of 20th century central bank dependency, given that, in the view of many, the continued existence of at least 175[124] central banks is historically unrealistic, and given that the 'parent' models are all undergoing change, the range of models is in fact very limited. And by models now is meant something different from dependence or independence since that is a difference that can often be effected by minor change - in the case of the Bank of England, for example, by dropping Article 4(1) in the 1998 Act or expanding it to extend independence beyond monetary policy.

A few years back, the range of models would have included the Bundesbank, but it exists now only as having played a formative part in the evolution of the ECB. Moreover, notwithstanding its great reputation while West Germany was a reality, the Bundesbank was largely modelled on the Fed, so its importance is perhaps not as great as has often been assumed. In any event, it can only live on if its disciplined culture prevails in the ECB, or, put another way, if the inflation stance associated with West Germans were to become the norm throughout the eurozone.

For those reviewing central bank modality, therefore, three basic models exist: the Fed, the ECB, and the Bank of England, although to say this is perhaps controversial. In terms, for example, of the 'tripolar' world of the US dollar, euro and yen, which many, including most interviewees, envisage as the next main stage in economic evolution, there is a clear discrepancy here, since the Bank of England is where the Bank of Japan should be.

And yet, while the Japanese economy is of undoubted significance, whether Japanese culture will ever support central bank independence must be a moot point. Central bank independence may be put forward as a simple arrangement, but its contextual consequences are enormous; not the least of which is the

[124] Figure per NYU's Center for the Study of Central Banks – October 2001.

question mark it places over the economic role of the state. More precisely, whether political and partisan or economic and systemic considerations should govern the conduct of economic life. Also, it cannot be without significance that Japan still has an emperor, so, were it regarded as such, what would the present Bank of Japan be a model of?

In reality, were the Bank of Japan to change its spots, it would have to choose between the Fed, the ECB, and the Bank of England. That said, from a future perspective the one to watch in Asia might well be China rather than Japan. As Paul Volcker wondered, if the Asian motor has to be in the midst of Asian trade flows, this may well point to China rather than Japan. The crucial question would then be what awaits the central bank of China. As China liberalises, at least at its fringes, what shape will its central bank take?

One can also legitimately wonder if the Bank of Canada and especially the Reserve Bank of New Zealand are not also models. Although of undoubted significance generally speaking, it is a question whether these are distinct models or illustrations of how the Bank of England model can be modified. Indeed, in the case of the Reserve Bank of New Zealand, it is quite likely that the successful outcome of the changes made there facilitated similar changes in the UK. Interesting also is the fact that both took place rapidly. In New Zealand the 'stars became aligned' and very major change was effected in a few years. In the UK, the operational independence of the Bank of England was a four-day wonder.[125] Furthermore, both were implemented under Labour governments acting with what one might call ideological irony.

Historians may also point to the model of the Swedish Rijksbank because of its longer history than the Bank of England and its idea at birth of rigidly distinguishing between what one might describe as a narrow bank, which was supposed to take in and hold gold and silver as deposits, and the lending part which was separate and was to be based on the capital of the owners and was to make loans. But the Rijksbank has now been subsumed within the ESCB.

Why the Bank of England?

The focus on the Bank of England is not, therefore, a result of historical myopia, still less denigration of New Zealand or Canada. It arises from the importance of the UK economy – that is to say, London – in the world of finance. Much financial liberalisation has had London as its crucible, meaning the encouragement given to internationalisation by the Bank of England and the British government. In this sense, the Bank of England is of interest because of its interface with, even representation of, global economic life. If the evolution of the Bank of England takes its cue from the fact that it is and always has been embedded in a world economic context, it stands to reason that the way it operates, the way it 'thinks', and the way it is structured – even the way it does its accounts – will belong more to that world than to the contours of its domestic economy. It is also of signal importance that, in terms of the central bank reporting to parliament, there is a substantial difference between parliament in the context of a

constitutional monarchy with an unwritten constitution, and parliament in the context of a federated republic with a president and a checks-and-balances culture, as in the USA, or of a non-federated political construct without a head of state – because without a state – and with a codification culture, as in the EU.

On a geopolitical note, the future of the Bank of England is intimately bound up with the future of the UK generally, of course. One needs to ask, therefore, what would happen were the UK to adopt, by force or by choice, a written constitution, or were the UK to join the euro, thus making a satellite of the Bank of England? In the other direction, what would happen were the views to prevail of those who argue that Britain should opt out of the EU and into a North Atlantic or global, presumably US dominated, trade area? Or will Britain, and therefore, the Bank of England continue to go it alone?

Needless to say, this is futurology, but it raises a crucial question: In order to retain the pound, on what would its uniqueness or comparative advantage, and therefore that of the Bank of England, be predicated? What could they offer the world that was not already or better offered by the ECB or the Fed? If no specific role or feature can be identified in a convincing manner – both internally in the UK and in the world at large – what future does the Bank of England have other than to second itself to the US or the EU?

Replicability

Though a hugely important topic and one that takes the discussion far wider than present purposes warrant, this is the necessary context for considering the replicability – indeed, continued existence – of the Bank of England as a sovereign central bank. Replicability does not, therefore, refer to cloning the Bank of England as if it were some paragon of virtuous behaviour. It has more to do with a reversal of the causation between the Bank of England and global economic life. Given the reflexive causality of finance, and if, as argued above, the Bank of England takes its real cue from global economic relationships, might it not be that the Bank reversedly provokes or encourages a non-hegemonous global economy of the kind that internationalised finance seems to be the harbinger? In other words, the more a country takes on the colour of the global economy, will its central bank not go the Bank of England route?

For many, the might of the euro makes this a redundant question. But the EU has yet to achieve fiscal unity, which in effect will require a declaration of statehood, and so it is legitimate to resist acquiescence to the euro's supposedly superior logic.

Moreover, notwithstanding the allure of the idea of a three-bloc world, is social reality not more complex? To which of the three would the Antipodes, India, Islamic countries, Francophonic Africa, Anglophonic Africa, Brazil and the Spanish-speaking Americas connect themselves? And even if it did

[125] When interviewed for this research, Charles Goodhart commented that 'within four days [Labour] had given operational independence to the Bank of England and within a week, two weeks at most, they had taken banking supervision away.'

arise, would history linger long at the three-bloc stage before moving on to the more homogenous condition that Rodrik contemplates (Section 3.1.5)?

Discussions are already advanced on how the three central banks concerned could, indeed should, support one another. Bofinger (2001) discusses how the central banks of Japan, the US and Europe might concert their actions in order to stabilise exchange rates, even to the extent of sharing the gains or losses from alignments, and the Fed, for example, divides its foreign currency holdings 50/50 between the yen and the euro. In effect, a triple hegemon to replace the USD.

But is a political hegemon needed or sustainable? More than one interviewee, including Volcker, said the US dollar and by implication the USA could not continue to be a political hegemon (or could only do so by way of an uncertain military strategy). The reality is perhaps better described as the USA giving way to the financial markets, which have become as global, virtual and non-hegemonic as the Internet. In the sense that 'there is no one at the end of the phone,' as Thomas Friedman put it,[126] the world is already without a political hegemon, therefore. It is driven by the financial markets instead. As things stand, however, as long as the financial markets are unregulated, the effective hegemon risks being the undisciplined, herdist behaviour that veers between greed and fear described by Bisignano.

For the simple reason that financial markets do not recognise and cannot be captured by national jurisdictions, we seem to have gone beyond the possibility of re-regulation, short of regional and eventually worldwide governance. The only other way to regulate the financial markets would seem to be to discover some form of inherent regulation. At its crudest, this could be the adage that markets go down as well as up, but more sophisticatedly, by improving the manner and concept by which they are accounted.

This problem has been discussed more fully in section 3.1.10, but for everyone to be able to 'own' such an approach, rather than regard it as an imposition, and for it to lessen rather than aggravate the growing resistance and opposition to globalised finance, it would need to evince mutual global genesis and enjoy voluntary universal application. Since it would be homogenising from the stand points of today's wide variety of national and cultural perspectives, it would need to be of such a nature that any standardisation, especially of central banking, was not perceived as an Anglo-Saxon fetish or some form of imperialism, a forcing of 'northern' values on everyone else, but as stemming in part from the global nature of modern economic life, which is homogenising by definition, but especially from the universalising force that finance seems to entail. (The remarks of the Brazilian interviewees – to the effect that central bank independence was cohrent to the Brazilian people – were significant in this regard.)

The Bank of England and Auditorial Central Banking

In this sense, the replicability of the Bank of England is about whether the Bank of England qua model can contribute to finding a way that is neither regulatory in the external sense (hence the disconnection

[126] 'Quit Whining! Globalisation isn't a Choice. NYT, September 1997.

from government and supervision), nor yet completely laissez-faire. It is here that the relevance of this discussion to the ACB thesis becomes apparent, since it argues that something of the kind is needed if central banking is to survive the virtualisation of finance and if, as seems likely, if only perforce of prejudice, free banking continues to be disallowed.

Albeit on the basis of the free play of market forces, the rationale of free banking is precisely that modern economic life requires the denationalisation of money with all the political reconstruction and mental rearrangements that this implies, as Hayek very carefully points out.[127] Since we are in a world that is clearly developing such characteristics, what other avenue is open to central banking if, as argued here, it cannot rest at central bank independence, yet free banking is debarred?

The question of the replicability of the Bank of England thus becomes: if auditorial central banking represents an apt response to the globalisation of economic life, and if, as seems to be the case, the Bank of England is representative of this approach, will it be used as a model for change by others?

With this question, the focus on the Bank of England can be pulled back to the wide panorama of the world as a whole. The question is not readily answered, however. Obviously, if Britain adopts the euro, the Bank of England will become part of the larger woodwork of the ESCB. It is not easy to see how this could come about, however, since the secretive culture of the European Central Bank contrasts with the transparency of the Bank of England, a contrast that extends into the detailed workings of their respective monetary policy committees. As noted earlier, whereas monetary nationalism tends to ambiguity and politicking, the relevance of the Bank of England increases the more a country turns its financial and monetary face to the world at large.

The answer thus lies in the processes of history, and while it may be thought that the Bank of England is near its end as a sovereign central bank, this may yet prove a premature conclusion.

[127] Hayek, 1990, pp.83-84 and elsewhere.

7: SUMMARY

As detailed in sections 5.5.4 and 6.2, the conclusions of this enquiry are that auditorial central banking represents the underlying trend as regards the response of central banking to the globalisation of economic life. In all of the cases studied, this trend is very evident and in several cases dominant, although Brazil has a long way yet to go and faces considerable hindrances of a politico-structural nature. However, with the exception of the BIS, all cases show one divergent feature in common – the continued control of central banks by government, linked to collection of seigniorage.

7.1 Policy Recommendations

The main policy problem, therefore, is how to manage the evolution of seigniorage and governmental control, and the main recommendation is to devise arrangements and thus policies that facilitate smooth transition in this direction. In this regard, if the ACB theorem has any merit, it is as a guiding question that may be of value in helping to comport our understanding and practice of political and financial affairs with today's increasingly global reality, especially by helping identify ways to effect evolutionary change rather than the upheavals that otherwise seem to be in prospect.

In this thesis, the image throughout has been that of the central bank being given autonomy of the kind enjoyed by the judiciary, but that, therefore, it reports to parliament (not to nobody!) instead of the government of the day (and is funded on a fee-for-service basis). This concept lies midway between the ambiguity of the Fed's current status and the arguably extreme independence of the ECB.

7.2 Suggestions for Further Work

Such a recommendation touches on four key questions, which at the same time become suggestions for further work:

1. Does Virtual Finance point to Free Banking?

The concept of free banking has been considered in depth, but it remains 'off limits'. At the same time, as the section on virtual finance showed, events seem to be becoming compatible with just such an approach. How real is this prospect, therefore, albeit in modern form, and will modern developments overcome the widespread resistance to it?

2. Is there no going back on Central Bank Independence?

A main conclusion of this study is that, although variegate, all the central banks studied have accepted the consensus view on operational independence and are now concerned with how to get that point of view so understood by their electorates that it informs their economic behaviour. This has the particular consequence that operational independence not only requires cross-party support, but also seems able to engender it, making it very difficult to score party political points on this matter.

Indeed, it was a Labour government that presided over central bank independence in New Zealand in the mid 1980s and a Labour government that did the same thing for the Bank of England in 1997. While there is much sniping at this development from those who believe in or wish to see a return to a socialist paradigm wherein the state orchestrates or strongly intervenes in economic life, it is not clear that these complaints can become any more than that. In his study of Bank of England independence, for example, King (2000) presents a powerful case for it having been a Labour project, notwithstanding the claim that the benign conditions at the time of its introduction were created by others. It is true that Labour, under the heading of New Labour, changed many of its spots, but this serves only to indicate the difficulty that would face any group who sought to revert to central bank dependence.

The question arises, therefore, how robust is central bank independence? If there are social inequities consequent on central bank independence and its generally liberal financial context, and were these to give rise to protests, how likely is it that remedies could be found by a return to central bank dependence? And can, in fact, the architecture of central bank independence be dismantled?

3. Parliament as Principal

The concept of the central bank reporting to parliament has been much discussed in this dissertation. Notwithstanding resistance to the idea, thought should be given to whether parliament could become the principal instead of government. Are there absolute institutional or conceptual obstacles to this? And how would the monetary landscape look were it to become normal practice?

4. Strategies for Central Bank Transformation

Given that this research shows that ACB is not to one side of reality and can indeed be seen as an emerging trend, could its key concept of three core functions become a strategic tool for central bank transformation? Two possibilities suggest themselves. The first is 'glass boxing', meaning using the ACB concept to make the central bank transparent to its core so that, regardless of who it reports to, not only would distortions in the manner of its operating be immediately apparent to an increasingly scrutinizing public, but the actual functioning of the central bank would also be impaired.

The second would be to use the ACB concept as a template for further central bank evolution by identifying the different elements within the one organisation, differentiating between them, and then

hiving them off in some way. This would amount to a deepening and widening of the spirit and logic behind the very early attempt of the Rijksbank to distinguish between narrow and wide banking and the Bank of England's much later separation between issue and banking. Indeed, as discussed in Section 4.2.2, it is this logic that could be extended to distinguish services to government and financial institutions from the functions of the auditorial central bank proper, and thus to achieve 'double independence', at the same time as seigniorage were made subject to competitive issue / contestable monopoly.

7.3 Some Final Reflections

The hypothetical investigation represented by this dissertation has indeed been 'an adventure of the mind'. It has not only touched on many aspects of modern financial life, ranging from concept through policy to practice, but has also implied throughout the need for a thorough review of these things in our time. In short, the globalisation of economic life is calling to be understood in its own terms as a worldwide economic event that cannot be 'captured' – either conceptually or practically – by merely political/national paradigms.

In the nature of things, to conduct this research without normative bias has required a continuous stilling of opinions, preconceptions, false assumptions, and premature conclusions on the part of the researcher. But not only him; not a few of those encountered in the course of the research reacted emotively, responding, one felt, to challenges to their own assumptions, rather than to the logic of the ACB argument. To contemplate the response of central banking to modern financial markets and to understand virtual finance is to challenge not only 'wrong' thinking, but also, apparently, emotions as well. It seems that money, not to mention manipulation of it, is something that affects people in common. With so public a thing, therefore, there is a need to get things 'right' and eventually so in everyone's minds – otherwise monetary affairs carry the risk of becoming a social battlefield.

In this 'adventure', each stilling of an opinion or reviewing of an assumption acted like a prompt in a maze, suggesting the appropriate turning to take. In this regard, the ACB theorem provided unspoken guidance - a matter that would be of no small consequence in today's world were it to become a generalised experience.

The image of a maze may well be apt. In the Minotaur's labyrinth, Theseus had to find his way into the most complex of matters. Albeit played out in more dramatic form, his, too, was an adventure of the mind, a case of learning how to think for himself, with the Minotaur representing the need to master human will with clear thought. This was no mean feat in those days.

Today, the adventure is about understanding global finance. For all its technical complexity, emotive provocations, and even geo-political connotations, the globalisation of economic life is essentially a challenge to develop clear understanding of finance and then to comport behaviour with it.

In many ways, the long span of history is about the emancipation of finance from all manner of external regulation. We are arguably now at the point where the last level of regulation - national and political - is being outgrown. It has therefore been an underlying argument of this thesis that this process is driven by the emergence of the individual as the main economic actor and by his need to evince mature financial behaviour.

This is what is meant here by inherent regulation, because ultimately the concept of auditorial central banking (double independence) is predicated on some inherently regulative behaviour on the part of economic actors. If free banking continues to be ‘off limits’, auditorial central banking (or something like it) seems to offer an alternative to the scenario that otherwise seems to be building, of inviting re-regulation, but at a global level. Rodrik notwithstanding, while such a development may seem ‘right’ at the economic level, it has major implications concerning national *political* sovereignty that are moot indeed.

Bizarrely, perhaps, this may be the more important role of auditorial central banking – to provide a means whereby economic life can be insulated from inappropriate political interference without nationhood becoming lost or merged into supranational and ultimately global political constructs.

APPENDICES

Appendix 1: The End of Bretton Woods

'The Bretton Woods system did not in practice work as envisaged: exchange rates became more rigid than intended; there was no systematic planned creation of international liquidity, and the balance of adjustment pressure was asymmetrically biased towards deficit countries. Above all, the system became a *de facto* dollar standard in several dimensions: the dollar was the anchor for exchange rates, the almost exclusive intervention currency, and the major source of reserves. The US became the *(n*-1)th country in the system and unable to change its exchange rate.

The proximate end of the system was in 1971 when the US announced that it would no longer supply gold to central banks in return for dollars; the dollar became inconvertible. More fundamentally, the major contributing factors were the problems of maintaining fixed exchange rates and an independent monetary policy in a world of substantial international capital movements; the confidence problem associated with the inexorable rise in US external dollar liabilities against a fixed gold stock, and problems associated with the *(n*-1) role. In particular, towards the end of the 1960s, the US pursued a more expansionary monetary policy than countries of Western Europe which, given the automatic sterilisation policies of the US and the requirement of central banks to intervene in the foreign exchange markets in order to maintain fixed exchange rates, meant that European monetary conditions came to be dominated by US monetary policy (Llewellyn, 1980; De Grauwe, 1973). This focuses the key problem of the *(n*-1) approach to international monetary arrangements which requires for its stability the acceptance of the effective hegemony of the *(n*-1)th country and its policies.

After a series of attempts at securing a new and durable pattern of exchange rates (e.g. the 1971 Smithsonian Agreement), and attempts at moderating the volume of international capital movements, the regime of fixed exchange rates (the key element in the Bretton Woods system) was effectively abandoned in spring 1973.'

- Llewellyn, D., in Llewellyn, D. and Milner, C. (Eds.) (1990) Current Issues in International Monetary Economics. London, Macmillan, pp.223-4.

Liberalised Capital, Globalised Monetary Policy and the Role of Central Banking
An introductory paper to the topic based on the original submission

Global Monetary Evolution
A consideration of one world economy / one currency

Why not International Lending of Last Resort?
A response to Capie's 'Can there be an international lender of last resort?'

International Credit Guarantees and Global Liquidity
Surveying the question of global capital regulation

Convergent Logic
The convergent logic of central banking and the financial markets

Auditorial Central Banking
Towards a definition of auditorial central banking

Monetary Reformism
A review of monetary reformist critiques

E-Money, Free Banking and the Redefinition of Money
Some implications of e-money for central banking

An Overview of Central Banking
The history and operation of central banking in an auditorial perspective

Transcending the Gold Standard
Revisiting Keynes's 'A tract on Monetary Reform'

The Challenge of the Financial Markets
A discussion of the emancipation and inherent regulation of the financial markets

Pick Three
A consideration of exchange rates in terms of auditorial central banking

Financial Liberalisation
A global and case study survey

Regulatory Change
The evolution of monetary policy

While the auditorial central bank operates apolitically, it nevertheless acts in the best interests of the economy it represents. This does not necessarily mean acting in competitive mode, so much as out of a sense of global economic partnership, or, to put it in more usual language, in the spirit of internationally co-ordinated monetary policy. Although he spoke some twenty years ago, Gordon Richardson, when Governor of the Bank of England, gave a lecture in which he spoke clearly of this important dimension, using words that have lost none of their relevance. 'It is, I think, difficult to believe that over the longer term so large a proportion of the world's currency reserves will be willingly held in one national currency... There are two possible ultimate destinations of such a development. Either we move to a world in which there is a single reserve asset, but in place of a national currency we have a man-made multinational 'outside asset'; or we move to a world in which there are several major reserve currencies...' (1979:13) 'We live in a world ...[in which] each individual nation will continually be attempting to carry out more or less specific monetary or exchange rate policies and is likely to have ... a specific balance of payments objective. These aims and policies will not automatically be mutually consistent. At the same time there exists neither the safety valve of the asymmetric accommodation of the dominant single reserve centre; nor an agreed set of rules of the game, nor a general willingness to abandon one of the policy objectives, namely any management of the exchange rate. It does not require much imagination to see the dangers and potentialities for tension in so over-determined a situation.' (1979:15) 'We should see that our best hopes of success are to accept, indeed to develop collaborative arrangements.' (1979:16).

Notwithstanding the difficulty in bringing it about, international collaboration in the field of monetary policy should not be deemed irrelevant. It is a clear concomitant of a globalised economy, witness the Labour Party's (1995:17) statement that '[t]rue national sovereignty will involve a sharing of sovereignty within the realities of the international economy', although in auditorial central banking terms one should distinguish between the maintenance of political sovereignty and the sharing of economic sovereignty. Indeed, the widespread assumption that central banks should become independent and give prominence to price stability makes no sense other than as a homogenous – i.e. shared – approach. The more global the economy becomes, the more similar will be the approach to finance, with national differences giving way to international similarity and channels of communication becoming reversed. As Mervyn King (unpublished 2000) notes, there was a time when 'the traditional channel for conveying City opinion to the government was through the Governor of the Bank of England...[but] this pattern of representation changed due to the internationalisation of financial services which led to the decline of 'esoteric politics'.'

Mention of Keynes's reference to PPP is not naïve or uninformed as to the theory's deficiencies or subsequent history. The reference is merely intended as an analytical device outside the thesis proper. It is meant as a way of orienting the mind, not as the statement of an eternal verity.

According to the Penguin Dictionary of Economics (1992), PPP theory states, 'the exchange rate between one currency and another is in equilibrium when their domestic purchasing powers at that rate of exchange are equivalent. For example, the rate of exchange of £1 = $1.40 would be in equilibrium if £1 will buy the same goods in the UK as $1.40 will buy in the USA.' The entry goes on to say, however, that 'in practice, the theory has little validity because exchange rates, which are determined by the supply and demand of currency in the foreign exchange markets, are related to such forces as balance of payments disequilibria, capital transactions, speculation and government policy. Many goods and services do not enter into international trade and so their relative prices are not taken into account in the determination of the exchange rate.' (352)

This is a major concern, to which Begg, Fischer and Dornbusch (1991) respond: '[The] question has been the subject of a great deal of research. The short answer seems to be, basically, yes in the long run but not in the short run.' (608) This view echoes Dornbusch's earlier comment (1990) concerning the short run violation of PPP: 'Today PPP is certainly no longer a cornerstone for modelling. Attention has shifted to *changes* in equilibrium relative prices. The simple Keynesian model assumes that wages and prices in national currencies are given, so that exchange rate movements change relative prices one-for-one. A newer approach recognises the sluggishness of wages, but builds on a theory of equilibrium price determination along industrial organisational lines.' (31)

Macdonald (1990) provides a more detailed commentary: 'Perhaps the earliest, and certainly one of the most enduring, views of the determination of the exchange rate is that of purchasing power parity (PPP). This asserts that the exchange rate is equal to the ratio of some domestic price level to a comparable foreign price level. Additionally, in terms of rates of change, the doctrine posits that the change in the exchange rate is equal to the ratio of the change in the domestic price level to the change in the foreign price level, all relative to some base period. This latter view of PPP is commonly described as relative PPP whilst the former view is termed absolute PPP.

The main appeal of PPP as a theory of the exchange rate is its inherent simplicity. There are, however, a number of well-known difficulties with both versions of PPP. Only traded goods prices are usually included, but all countries also produce a range of goods, such as services, which are non-traded and enter the computation of price indices. Is it, however, legitimate to use such price measures in the calculation of PPP? A controversy exists over this issue. Some international economists have strongly argued that if one only uses traded goods in a derivation of PPP, it amounts to nothing more than a tautology (that is,

that the price of a bundle of home goods is the same as an identical foreign bundle of goods when converted into a common currency), and, therefore, only non-traded goods should be used. If a price index which includes both traded and nontraded goods is used this can impart a bias into the calculation of PPP if there are productivity differences between countries (this is known as the Balassa-Samuelson thesis).' (74-78)

He goes on to describe the subsequent theories of FLMA (flexible price monetary approach), SPMA (sticky price monetary approach), RID (real interest differential model), and PBA (portfolio balance approach), before referring to empirical evidence, which tends to devalue PPP theory. 'The majority of the evidence does in fact find that the change in the real exchange rate follows a random walk,' (91) a view that contrasts with that of Aliber (1990), who argues there is a difference to observe between long run and short run (less than 3 years) change, as well as between nominal and real exchange rates. In the same vein, commenting privately, Michael King, an academic with many years experience in the foreign exchange markets, has this to say: 'PPP does not hold in the short run or the long run. I recently researched this literature for another paper and found that currency markets deviate significantly from PPP in the short run, but converge on their mean value after four years or more. This slow correction is due to factors which prevent arbitrage, such as information barriers, transaction costs, and government regulations. Active currency strategies can therefore generate increased returns in the short run, such as consistently taking exposure to premium currencies for short periods or applying technical trading rules. Exchange rate markets do not follow the Mundell-Fleming framework, so in practice monetary authorities have had considerable autonomy even under fixed exchange rates.'

Much indeed seems to turn on the need for some kind of structural differentiation between PPP in connection with trade and general price levels, and the workings of liberalised global capital. The latter is, of course, the defining feature of economic life since 1973, when floating became the norm but, because of financial liberalisation, behaviour did not conform to Friedmanite expectations. It was in the face of these unexpected events that Dornbusch argued for special treatment of capital flows: 'Most of the shortcomings of our exchange rate experience stem from excessive, overly volatile capital mobility. The stickiness of wages relative to exchange rates creates a macroeconomic externality which possibly justifies closing or restricting some markets. Rather than fix exchange rates, the alternative is to limit the consequences of capital mobility.' (42)

In terms of the ACB theorem, however, with its central concept of reciprocally determined universally floating exchange rates, the problem is not the disturbance due to exchange rates, but the fact that under present conditions exchange rates can be false or, indeed, falsified. In other words, it is not global capital that is at issue, but the fact that it chases after discrepancies in exchange rates.

Appendix 5: Churchill's Economic Parliament

The following is an extract from the Romanesque Lecture on 'Parliamentary Government and the Economic Problem' given at Oxford, 19.6.30. (See also Churchill's evidence before the Select Committee on Parliamentary Procedure, 15.6.31.)

It would seem therefore that if new light is to be thrown upon this grave and clamant problem, it must in the first instance receive examination from a non-political body free altogether from party exigencies, and composed of persons possessing special qualifications in economic matters. Parliament would therefore be well advised to create such a body subordinate to itself and assist its deliberations to the utmost. The spectacle of an economic sub-parliament debating day to day with fearless detachment from public opinion all the most disputed questions of finance and trade, and reaching conclusions by voting, would be an innovation easily embraced by our flexible constitutional system. I see no reason why the political parliament should not choose in proportion to its party groupings a subordinate economic parliament of say one fifth of its members, and composed of persons of high technical and business qualifications. I see no reason why such an assembly should not debate in the open light of day and without caring a halfpenny who won the General Election or who had the best slogan for curing unemployment, all the graves issues by which we are afflicted. I see no reason why the economic parliament should not for the time being command a greater interest than the Political Parliament; nor why the Political Parliament should not assist it with its training and experience in methods of debate and procedure. What is required is a new personnel adapted to the task which has to be done and pursuing that task without fear, favour or affection. The conclusions of such a body although themselves devoid of legal force might well, if they command a consensus of opinion, supply us with a comprehensive and unified view of high expert authority, which could then be remitted in its integrity to the political sphere.

As with PPP theory (see Appendix 4), reference to the quantity theory of money is not made in ignorance of the debates concerning its precision, utility, and, indeed, aptness to modern conditions. However, as with other elements of modern economic life, the ACB concept alters the significance of the quantity theory of money and thus modifies those debates.

The theory dates at least from Thomas Mun (see Weintraub) in 1690, but was given modern form in 1911 by Fisher's 'equation of exchange':

$$P = \frac{MV + M^1V^1}{T} \quad \Diamond \quad MV = PT \quad \Diamond \quad M = P$$

Irreducibly expressed in this way, one has the concept of neutral money in crudest form, prompting Galbraith's (1987: Chapter 12) description of it as a 'deathless contribution to economic thought'. Moreover, it brought with it the 'seriously seditious' idea that, other elements of the equation being unchanged, varying the supply of money, can affect prices.

It is on this concept that the modern debate has centred, with the polar positions being that one cannot and therefore should not allow the money supply to do other than follows the contours of the waxing and waning of economic activity, and that, given such examples as the 'Greenbacks', printed money can and therefore should be allowed to influence prices.

This dichotomy underlies the polarisation of views between Keynesians and monetarists, and has done much to lame modern economic life at both conceptual and practical levels. Earlier, in the famous American case resulting in the Wizard of Oz,[128] the two views were represented by, respectively, 'eastern money' and frontiersman and farmers. In Galbraith's view, however, each group used economic theory to express their vested interests, with neutrality of money being, in his analysis, a cover for maintaining the notion of scarcity.

For money to be neutral, however, surely it needs to be a reflection or proxy, neither adding to nor subtracting from that which it represents. In other words, what is needed is not 'too much' money or 'too little', but the 'right' amount.

It is, of course, the argument of free banking that it results in the right amount. However, the rise of central banks displaced this concept, giving rise not only to the assumption that the central bank is the appropriate agency to do this, but that it does so as an arm of government and thus by printing money.

[128] See Rockoff (1990).

From an ACB point of view, however, not only is it a question of the 'right' amount, it is not a question of too much or too little, but of distinguishing between the money needed to finance trade (means of exchange money) for that needed to finance means of production (store of value money). Moreover, it is a question whether the state should be the location and agent of this process or an auditorial central bank reporting to parliament.

In short, the problem is that because the quantity theory of money is focussed on an undifferentiated concept of money (see Section 3.1.6), the debate over it is a false one. Not only does the theory rely on key elements being unchanged, but also on the context not changing. Since today's context entails a burgeoning of credit over against cash, the problem is not one of validity, but of aptness.

In its essence, monetary justice argues that most of the financial and monetary roles currently located in the private banking system should be exercised by governments. Governments especially should not borrow from private banks at interest, but should issue their own money interest free. From this point of view, granting the Bank of England a private charter in return for a £1.2 million loan at 8% was a historical mistake that played into the hands of double-dealing goldsmiths and financiers! Understandably, such trenchant criticism is not readily included in the central bank independence debate as normally conducted. Nevertheless, its arguments should not be dismissed out of hand. Under the alternative appellation of monetary reformism, the monetary justice critique is gathering momentum among many people concerned at what they perceive to be the negative effects of globalised finance.

Maybe not tomorrow, but in time the monetary reformist argument may achieve political strength and thus demand to be taken into account. Insofar as the Green Party in Germany has a political presence and insofar as it heeds the work of people such as Margrit Kennedy (1991) and Josef Huber (1999), the monetary justice approach to monetary policy is already in the political wings. But it has also made a formal appearance in the UK when James Robertson, a well-known writer on the 'alternative economics' circuit and a prime mover in the formulation of an 'alternative monetary policy', gave evidence to the House of Lords Select Committee on the Bank of England's Monetary Policy Committee on 27 July 1999 (Vol.II, pp.367-373).

What does lending at last resort mean? As Capie (1998) makes clear, different points of view obtain, depending on what part of history one looks at, and when and where one looks at the phenomenon. Nevertheless, he achieves a consensual definition: A lender of last resort comes 'to the rescue of the market ...[with] responsibility for the stability of the banking system as a whole.' (7) Its purpose is 'to provide the market with liquidity'(2) in order to 'allay widespread panic'(6), but on three strict conditions. Firstly, it does not rescue individual entities unless, presumably, an individual entity in trouble cannot go bankrupt without collateral consequences. Secondly, it neither makes nor signals pre-commitment, thus seeking to pre-empt moral hazard. Thirdly, it operates with an interest beyond 'residual concern for its own profitability' (15), an allusion presumably to Goodhart's point that decommercialisation is an effective requirement of lending of last resort even if it is not written into law - see Section 3.2.1.

Thus the lender of last resort definition assumes certain structural understandings, which may or may not also be reflected in constitutional arrangements. Similarly, if the organisation operating as lender of last resort is also charged with the functions of monopoly of issue and holder and payer of ultimate payment, then these oblige it to act as a lender of last resort, whether or not it seeks the role deliberately, and whether or not it 'should' have such a role – see Section 3.2.1.

The distinction between formal and effective lending of last resort is important in two further respects. It means that although one can define a lender of last resort, not all actions of a body so named may or should comport with the definition. If a central bank, for example, bails out an undeserving case, this means that it has stepped outside the definition, not that the definition is useless or without validity. In other words, there is a concept behind lending at last resort by which we come to recognise the phenomenon.

For this reason, one can advance another vitally important feature of lending at last resort – the necessity of anonymity. The lender of last resort is not interested in who is presenting the paper at the discount window, but in the quality of the paper. He has his eye on the economic fundamentals that feckless human beings are otherwise prone to override.

Appendix 9: Full List of ACB Features

Numbers in square brackets are from Fernandez de Lis – see Chart 4.1.

1000 **CONSTITUTIONAL**

1100 Societal Agent

1101 [1] Exists in own right by act of parliament (or equivalent)
1102 Operates by way of clear legislative mandate (letter and substance)
1103 [5] Main central bank purpose(s):
1103a monetary policy (3300)
1103b financial stability (3500)
1103c research and analysis (3400)
1104 Independence ('above the fray') reporting to Parliament:
1104a independent of government
1104b independent of financial interests
1104c independent of central bank staff agendas (Vaubel)
1105 [7,11] Mandate review / revision procedures spelt out with and in gift of Parliament
1106 [4] Override and conflict resolution procedures spelt out with and in gift of Parliament

1200 Democratic Accountability

1201 [6] Democratic accountability:
1201a via electoral procedures (e.g. reporting to Parliament - see 1204)
1201b via non-electoral procedures (e.g. fulfilling purposes - see 1103)
1202 [19] Transparency in finance and decision-making
1203 [22] Freedom in communication
1204 Reporting to (and audited by) parliament:
1204a aims, policies and performance
1204b using clear and measurable policy objectives e.g. PS, to facilitate performance monitoring
1204c frequency to maintain currency of information
1204d fully public form (minutes, inflation reports, parl. hearings, etc.)

1300 Conceptual Guidelines

1301 Distinguishing between political and economic
1302 [5] Policy and own operation to follow logic of finance not statism (Fry 1995)
1303 Systemicity (= economic stability via price stability and financial stability)
1304 Neutrality of money

2000	**INSTITUTIONAL**
2100	Type of Organisation / Ownership and Control
2101	Limited company (or equivalent)
2102 [20]	Controlled by trust-mandate in fulfilment of constitutional role
2200	Finance
2201	Capitalised by shareholders with right to dividend but not to override or subvert trust-mandate
2202 [15]	Distribution of profits to reserves and shareholders
2203	Source of profits = income in excess of expenditure
2204	Sources of income from fulfilment of tasks (1103) no other allowed (to avoid conflicts of interest)
2205a	No seignorage
2205b[18b]	Currency issue (either zero or to society generally)
2206a [14]	Responsible for own budget and debt burden
2206b	Own B/S separate from 'Clients' B/S
2206c	Own B/S controlled
2206d	OBS items to be consolidated
2300	Governance
2301	Overview Council
2302 [8]	Composition of general board (broad church)
2302a	board appointment ex sectors
2302b[8]	presence / influence of government representatives on sectoral basis qua Treasury
2302c	appointment/dismissal of board members
2302d [9,12]	head of bank appointed by board (per expertise ex board or external)
2302e	appointment / dismissal of Bank head per board ratified by shareholders
2302f	co-opts, counsel, ex officio as it sees fit
2303a	Tenure disjoined from electoral & political cycles
2303b	Post tenure distance / debarment
2304[9,12]	Appointment / dismissal of Bank officials per board
2305a[10]	Mandate of Board to fulfil trust-mandate (1103)
2305b	via committees or delegated organisations:
2306a	conduct monetary policy
2306b	support financial stability
2306c	carry out research and analysis at systemic level
2307	Public, post event voting
2308	Board members' salaries
2308a	Disclosure of interest / conflict of interest
2308b	exclusive income
2309	Internal procedure at Board level
2310a	Contract performance
2310b	Governor alone responsible (a la NZ)

3000	**OPERATIONAL**
3100	Non-functions on Side of Government
3101 [18a]	Banker to government
3101a	current account
3101b	lender
3102	Cover and management of government debt (zero finance of G deficits = no Open market operations in G debt)
3103 [13]	Limits on government finance
3104	Privatised public account operations
3200	Non-functions on Side of Finance
3201 [18h]	Consumer protection in finance
3202 [18e]	Intervention in ailing financial institutions
3203 [16]	Banking supervision per 'meaningful' disclosure a la NZ?
3204 [18c]	Banker to banks only as relevant to monetary policy
3300	Monetary Policy (1103b)
3301 [2,21]	Freely determined formulation of monetary policy (Goal Independence)
3302 [3]	Freely determined implementation of monetary policy (Instrument independence)
3303	Internal - price stability prominent via s-t interest rate
3304 [17a,17b]	External Policy - PPP via exchange rate setting (via universal float or judged approximation) and exchange rate implementation
3500	Financial Stability (1103c)
3501 [18i]	Use of inherent regulation (universal accounting framework)
3502	International collaboration (e.g. co-ordination of monetary policy)
3503	Lender of last resort (in extremis and only when risk is systemic)
3400	Research and Analysis (1103a)
3401 [18f]	Centralised credit reporting
3402 [18g]	Statistics and balance sheet office
3403	Trade and production information
3404	Data analysis
3405	Risk management
3406	Use of Inflation indicators, models and forecasts

Appendix 10: Off Balance Sheet Business

Buckle and Thompson (1992) define off-balance sheet business as that which 'guarantees a contingent commitment and generally an income to the bank without ... being captured on the balance sheet under conventional accounting practices.' (73) Typical examples are: non-activated loan commitments, guarantees, swaps and hedges, securities underwriting, and foreign exchange dealings.

Such business is accompanied by '[a] desire to escape capital adequacy controls,' (78) which, especially since 1988, has in turn invited on-going efforts to harmonise capital controls.

Off-balance sheet business is characteristically fee-generating, enabling those concerned 'to earn income without having to source funds or set aside capital or reserves.' (Khoury, 195). Swary and Topf (1992) attribute the rise in off-balance sheet business to 'the development of [the derivatives] markets since the late 1970s... Financial futures ... exist for a wide variety of instruments – debt, equity, currencies, and even indices... They have revolutionised risk, for example, by vastly increasing the importance of off-balance sheet assets as opposed to traditional assets.' (276)

They point out, however, that 'off-balance sheet activity, by its very nature, is difficult to capture accurately in traditional financial statements ... greatly complicat[ing] the task of financial reporting...' (344) Khoury addresses this in the following way: 'At issue here is the definition of what constitutes adequate capital because no capital ratio is adequate if the decisions on the asset side are substandard or if a bank run hits... The other issue is the definition of capital. Today it includes perpetual bonds, perpetual FRNs and perpetual preferred stock. This most liberal of definitions is troubling indeed because it creates an 'equity illusion' and increases the probability that creditors can force banks into liquidation... What should be considered is some form of netting schemes in which the natural hedges that off-balance sheet items provide for on-balance sheet items is accounted for.' (228)

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