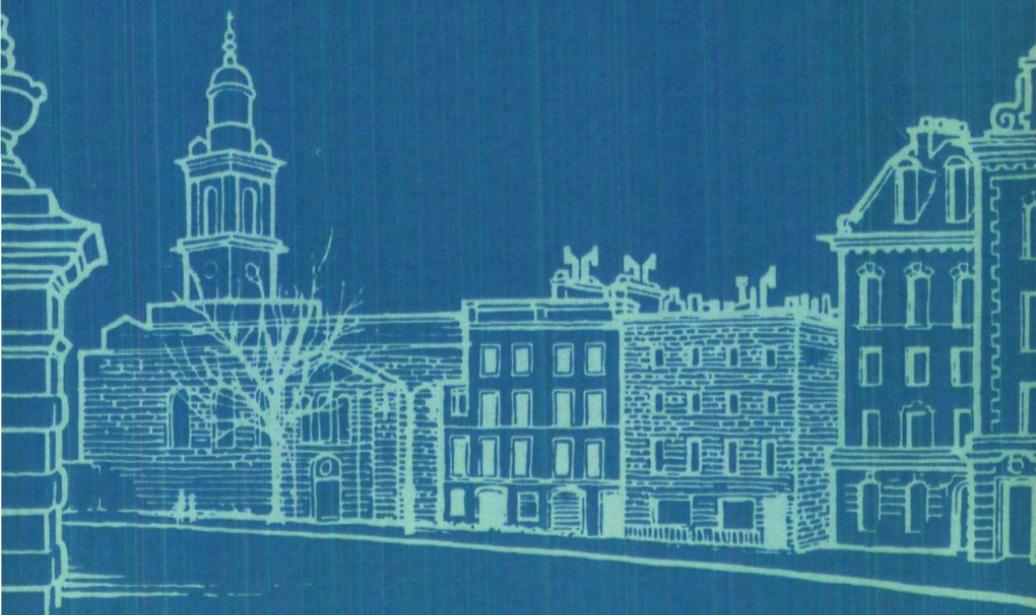


# IEA

## Private Money

*The Path to Monetary Stability*

KEVIN DOWD



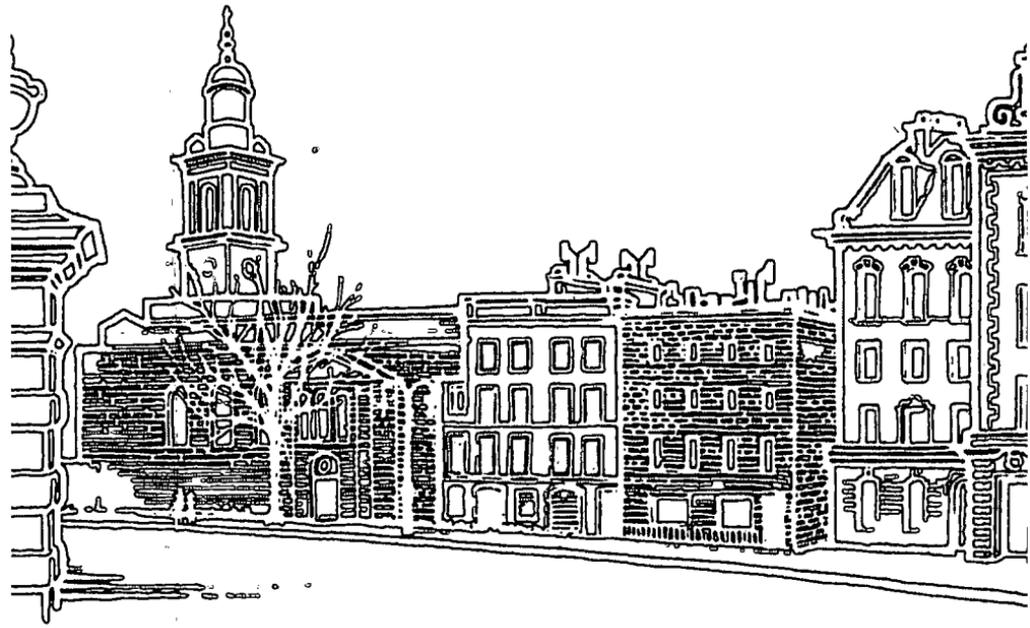
HOBART PAPER 112

IEA

# Private Money

*The Path to Monetary Stability*

**KEVIN DOWD**



**HOBART PAPER 112**

## INSTITUTE OF ECONOMIC AFFAIRS

The Institute was set up as a research and educational trust under a trust deed signed in 1955. It began regular publication in 1957 with specialised studies of markets and pricing systems as technical devices for registering preferences and apportioning resources. Micro-economic analysis forms the kernel of economics and is relevant and illuminating in both public and private sectors, in collectivist as well as in individualist societies.

The Institute's work is assisted by an international advisory council:

|                             |                            |
|-----------------------------|----------------------------|
| Professor Armen A Alchian   | Professor S C Littlechild  |
| Professor Michael Beenstock | Professor Patrick Minford  |
| Professor Michael Beesley   | Professor E Victor Morgan  |
| Professor J M Buchanan      | Professor D R Myddelton    |
| Professor Alan Budd         | Professor Chiaki Nishiyama |
| Colin Clark                 | Professor I F Pearce       |
| Professor Ronald H Coase    | Professor Martin Ricketts  |
| Professor Malcolm Fisher    | Professor Colin Robinson   |
| Professor Brian Griffiths   | Professor Roland Vaubel    |
| Professor T W Hutchison     | Professor E G West         |
| Professor Dennis Lees       | Professor Jack Wiseman     |
| Professor Geoffrey E Wood   |                            |
| <i>Vice President</i>       | Arthur Seldon              |

The Institute is a company limited by guarantee, controlled by Managing Trustees. It is independent of any political party or group and financed by sales of publications and by voluntary contributions from individuals, organisations and companies.

|   |                            |
|---|----------------------------|
| <i>Chairman</i>                                   | Lord Harris of High Cross  |
| <i>General Director</i>                           | Graham Mather              |
| <i>Research and Editorial Director</i>            | Dr Cento Veljanovski       |
| <i>Deputy Director</i>                            | John B Wood                |
| <i>Director of<br/>Finance and Administration</i> | Keith C Miles FCA          |
| <hr/>   |                            |
| <i>Publications Manager</i>                       | <i>Editorial Secretary</i> |
| Michael Solly                                     | Ruth Croxford              |
| <i>Librarian</i>                                  | <i>Marketing Manager</i>   |
| Kenneth Smith                                     | John Raybould              |

THE INSTITUTE OF ECONOMIC AFFAIRS  
2 Lord North Street, London SW1P 3LB  
*Telephone* 01-799 3745 *Fax* 01-799 2137

# Private Money

*The Path to Monetary Stability*

KEVIN DOWD

*Lecturer in Economics,  
University of Nottingham*

IEA

*Published by*

THE INSTITUTE OF ECONOMIC AFFAIRS

1988

*First published in November 1988*

*by*

THE INSTITUTE OF ECONOMIC AFFAIRS  
2 Lord North Street, Westminster,  
London SW1P 3LB

© THE INSTITUTE OF ECONOMIC AFFAIRS 1988

*Hobart Paper 112*

*All rights reserved*

ISSN 0073-2818

ISBN 0-255 36216-1

*Printed in Great Britain by*

GORON PRO-PRINT CO LTD

*6 Marlborough Road, Churchill Industrial Estate, Lancing, W. Sussex*

*Text set in Berthold Baskerville*

## CONTENTS

|   | <i>page</i>                |
|---|----------------------------|
| FOREWORD  | <i>Cento Veljanovski</i> 7 |
| THE AUTHOR  | 12                         |
| I. THE PROBLEM OF POLITICAL MONEY                           | 13                         |
| Overview of the Study                                       | 14                         |
| II. MARKETS, BUREAUCRATS AND MONEY                          | 16                         |
| The Benefits of Competition                                 | 16                         |
| Competition in Money  | 17                         |
| <b>Integration with a Vengeance</b>                         | 18-19                      |
| by <i>Clive Wolman</i>                                      |                            |
| The 'Public Choice' Perspective                             | 21                         |
| A <i>Prima Facie</i> Case for Monetary <i>Laissez-Faire</i> | 23                         |
| III. THE STABILITY OF THE BANKING SYSTEM                    | 24                         |
| How a Free Banking System Would Operate                     | 24                         |
| The Discipline Against Over-Issue                           | 25                         |
| The Evolution of a Clearing System                          | 25                         |
| The Clearinghouse Check on Over-Issue                       | 26                         |
| Historical Evidence   | 26                         |
| The Absence of Note-Clearing Under                          |                            |
| Central Banking   | 27                         |
| The Central Bankers' Argument                               | 28                         |
| Bank Runs and Banking Instability                           |                            |
| Under <i>Laissez-Faire</i>                                  | 30                         |
| 'Firesale' Losses   | 31                         |
| The 'Contagion' Argument                                    | 33                         |
| Historical Evidence   | 33                         |
| Option Clauses  | 34                         |
| Stabilising Speculation                                     | 35                         |
| The Development of a Private 'Lender of                     |                            |
| Last Resort'  | 36                         |

|  |    |
|--|----|
| Banking Instability Under Central Banking                                      | 38 |
| Restrictions on Bank Liabilities   | 38 |
| Lender-of-Last-Resort Policy   | 40 |
| A Central Bank as Lender of Last Resort  | 40 |
| Excessive Discretion in Central Banking  | 42 |
| Treating the Symptom, Not the Cause  | 43 |
| <br>   |    |
| IV. THE MONETARY STANDARD  | 44 |
| The Importance of a Stable Monetary Standard                                   | 45 |
| The History of the Standard  | 46 |
| Early Commodity Standards  | 46 |
| Early Government Interventions   | 47 |
| Establishment of the Fiat Standard   | 48 |
| The Operation of the Fiat Standard   | 49 |
| An Erratic and Unpredictable Inflation Rate                                    | 51 |
| <b>No Necessary Reason for Government to<br/>    Monopolise Currency Issue</b> | 52 |
| by <i>Nigel Lawson</i>   |    |
| The Costs of the Fiat Standard   | 52 |
| Resource Costs   | 52 |
| The Costs of Exchange Market Intervention                                      | 53 |
| Monetary Policy as a Means of Taxation   | 55 |
| The 'Optimal Tax' Argument for Inflation                                       | 55 |
| The Historical Record  | 55 |
| Theoretical Arguments Against the Inflation Tax                                | 56 |
| Conclusions  | 57 |
| <br>   |    |
| V. MONETARY REFORM   | 58 |
| The Argument for a 'Monetary Constitution'                                     | 58 |
| Alternative Proposals  | 60 |
| Membership of the EMS  | 60 |
| A European Central Bank  | 60 |
| An Agenda for Reform   | 61 |
| Deregulation   | 61 |
| The Standard   | 61 |
| Freeze the Currency Supply or Return to the<br>Gold Standard?                  | 62 |

|   |                   |
|---|-------------------|
| <b>Denationalisation of Money:<br/>The Practical Proposal</b> | 64-65             |
| by <i>F. A. Hayek</i>   |                   |
| Abolishing the Bank of England                                | 66                |
| Achieving Monetary Stability                                  | 66                |
| QUESTIONS FOR DISCUSSION                                      | 67                |
| READINGS FOR FURTHER STUDY                                    | 69                |
| SUMMARY   | <i>Back cover</i> |

## FOREWORD

*Hobart Papers* aim to provide lucid, rigorous and independent economic analyses of the choice between the market and government institutions. The authors of *Hobarts* are asked to apply the axioms of economics to the activities and behaviour of individuals in the market-place and in institutions such as the firm, the club and government. When this *comparative institutions approach* is adopted a clearer understanding of the policy issues is gained. There is no implicit assumption that one institution (usually the market) is imperfect and another (government intervention) operates in an ideal way.

One *Hobart Paper* (No. 70), written over 12 years ago, adopted this approach—it questioned an assumption which generations of economists had made. F. A. Hayek's *Denationalisation of Money*, together with his earlier short paper, *Choice in Currency* (Occasional Paper 48), are truly pioneering. In the former paper he put forward a radical proposal to dismantle the government's monopoly of money and permit (national) currencies to compete. While economists generally believe that competition serves the interests of consumers and monopoly harms them, they have regarded money as different. So different that the government had to have a monopoly of the issue of currency and a macro-economic policy controlling monetary variables in order to stabilise the economy. Hayek challenged this idea by concluding that the only true path to monetary stability was to adopt the axiom that where competition is feasible it should be maximised.

It would be true to say that Hayek's alternative to central banking met with an almost universal unwillingness to 'suspend disbelief'. While one could understand that as a matter of practical policy the idea that governments should relinquish their control of money did not receive serious consideration, it is much more difficult to discern why economists—both theoreticians and practical monetary economists—did not examine the logic and consequences of Hayek's free banking proposal. After all, there were well documented episodes in history—such as Scotland during the period 1728 to 1845—which had free

banking with private note issuing coupled with monetary stability. This should have suggested at least a *prima facie* case for serious analysis. The neglect of the subject is illustrated by the *New Palgrave Dictionary of Economics* which covers the topic by reprinting the entry on free banking in the original 1894 edition.<sup>1</sup>

Hayek's thesis has been revived and refined in Dr Kevin Dowd's Hobart Paper 112, *Private Money*.<sup>2</sup> The issue at the heart of his analysis is whether a free banking system creates monetary stability, that is, protects the banking system against crisis and maintains the value of the currency. He argues first that competition where possible produces the most efficient results. Secondly, that there is nothing special about money that would overturn this generalisation. And thirdly, that it therefore logically follows that money should be denationalised—or as we would now say, privatised—and opened up to competition. Financial institutions should be free to issue their own notes and currency and the choice should be left to the market of which currency is used as the medium of exchange and the store of value.

Others have not gone as far as Dr Dowd. Previous IEA authors with a deep concern for the intractable difficulties posed by government monetary policy have sought to impose 'constitutional rules' which would limit its ability to manipulate the money supply. Professor Milton Friedman would have a fixed rule which limited government's freedom to increase the money supply in line with the rate of economic growth.<sup>3</sup> Professors James Buchanan and Geoffrey Brennan in their Hobart Paper (No. 88), *Monopoly in Money and Inflation*, develop the case for a 'monetary constitution' which would discipline government. Others have sought to control the money supply by tying it to the gold standard or—a very early proposal by Irving Fisher and Henry Simons—that the monetary authority should keep the value of the monetary unit stable in terms of an index of prices. The common theme of all these proposals is that they accept the intellectual case for the government's monopoly of money.

These proposals for 'constitutional constraints' on govern-

<sup>1</sup> London: Macmillan, 1987, Vol. 2, p. 417.

<sup>2</sup> Also see two other recently published tracts which examine different aspects of free banking: Lawrence White, *Free Banking in Britain: Theory, Experience and Debate, 1800-1845*, New York: Cambridge University Press, 1984, and George Selgin, *The Theory of Free Banking—Money Supply Under Competitive Note Issue*, New Jersey: Rowman & Littlefield with the CATO Institute, 1988.

<sup>3</sup> Milton Friedman, *The Counter-Revolution in Monetary Theory*, Occasional Paper 33, IEA, 1970.

ment do not, in Dr Dowd's view, deal effectively with the politicisation of monetary affairs. Much of this literature is American in origin where constitutional limits on governmental action exist and are feasible. But in a system such as that in the UK, where Parliament is sovereign, limits set by one government would not be binding on future governments. There is really no way that politicians and electorate could agree to a binding commitment to limit a government's discretion and ability to interfere with the monetary system. Here the free banking proposal has a very practical advantage. The complete privatisation of currency is the only way fully to depoliticise the monetary system, in much the same way that the privatisation more generally of public sector industries has severely limited the degree to which politicians can interfere in investment, employment and pricing decisions.

Free banking has one other major attraction. It is consistent with developments elsewhere in financial systems across the world. In the last decade financial markets have been deregulated on a massive scale—restrictive practices and barriers to entry have been removed, exchange controls have been abolished and financial markets have become part of an integrated global financial network which trades 24 hours a day and respects no national boundaries. The increased competitiveness of these markets has eroded the earlier tenets underpinning monetary economics and policy. Yet contemporary debates on monetary reform carry with them intellectual baggage from a past era when financial markets were heavily regulated. The free banking proposals outlined by Dr Dowd are a logical extension of and fully consistent with the swift progress that has been made in financial deregulation, and which has forced the monetary system to become much more competitive and less susceptible to manipulation by national monetary authorities.

It is therefore ironic that the pressures for monetary reform rotate around questions that are the antithesis of such a liberal pro-competitive approach—the European Monetary System, a common currency and a European central bank. These approaches to monetary reform retain two ingredients which are, in Dr Dowd's view, the root cause of monetary disorder—monopoly and political control. The EMS is an administrative solution which, like other European institutions, is subject to a myriad of political pressures compounded by competing sectional and national interests.

The IEA as an educational trust dissociates itself from the views and opinions of its authors who write in their own capacity as independent scholars. Dr Dowd's discussion represents a succinct case for the most radical privatisation proposal yet—to free the supply of money from government control. Unlike previous privatisations the nationalised monopoly—in this case the Bank of England, which Dowd points out has at times lost more money through its interventions than the worst managed nationalised industry—would not be sold but abolished. This *Hobart Paper* is a significant contribution to the debate over monetary affairs. For students of economics it addresses a subject that provides a fertile area for further research and study; for the historian of economic thought a search for the reasons why this important subject has suffered from such neglect. Dr Dowd's analysis and proposals will, it is hoped, rekindle interest in free banking and stir both governments and the economics profession to examine the case for an alternative to monopoly money and central banking.

The IEA would like to thank Professors Patrick Minford and Geoffrey Wood for their comments on an earlier draft of this *Hobart Paper*.

*November 1988*

CENTO VELJANOVSKI

'The immense capital and peculiar privileges bestowed upon it [the Second Bank of the United States] enabled it to exercise despotic sway over the other banks in every part of the country. From its superior strength it could seriously injure, if not destroy, the business of any one of them which might incur its resentment; and it openly claimed for itself the power of regulating the currency throughout the United States. In other words, it asserted (and it undoubtedly possessed) the power to make money plenty or scarce, at its pleasure, at any time, and in any quarter of the Union, by controlling the issues of other banks and permitting an expansion or compelling a general contraction of the circulating medium according to its own will. The other banking institutions were sensible of its strength, and they soon generally became its obedient instruments, ready, at all times, to execute its mandates . . . The result of the ill-advised legislation which established this great monopoly was to concentrate the whole moneyed power of the Union, with its boundless means of corruption and its numerous dependents, under the direction and command of one acknowledged head . . . In the hands of this formidable power, thus perfectly organized, was also placed unlimited dominion over the amount of the circulating medium, giving it the power to regulate the value of property and the fruits of labor in every quarter of the Union and to bestow prosperity or bring ruin upon any city or section of the country as might best comport with its own interest or policy.'

ANDREW JACKSON (1843)\*

\*Quoted from Joseph L. Blau (ed.), *Social Theories of Jacksonian Democracy: Representative Writings of the Period 1825-50*, New York: Hafner Publishing Company, 1947, pp. 14-15.

## THE AUTHOR

KEVIN DOWD was born in 1958 and educated at St. Mary's College, Middlesbrough, and at the Universities of Sheffield (BA, 1980; PhD, 1988) and Western Ontario (MA, 1981). From 1983 to 1985 he worked as an economic policy analyst at the Ontario Economic Council in Toronto. He taught economics at Sheffield University from 1986 to 1988, and is now a Lecturer in Economics at the University of Nottingham.

Dr Dowd's main research interests are in political economy, macro-economics and monetary economics. He has published several papers on free banking and has written a forthcoming book on the subject (*The State and the Monetary System*, to be published by Philip Allan in early 1989).

## I. THE PROBLEM OF POLITICAL MONEY

In recent years there has been a renewed awareness of the failures of government policy. It is generally accepted that government monetary and macro-economic policies have failed to reduce unemployment or to stabilise the economy, and that these policies have themselves caused considerable problems. Principal among these are inflation, the volatility of interest rates, and the vulnerability of the banking system to crises. At the same time as the growing awareness of government failures, there has also been a change in economists' perception of government as an institution. Government was once regarded as the solution to the problems caused by unrestrained private interest in the 'free' market. Such an approach will no longer do. It is increasingly recognised that government is not an impartial arbiter standing 'above' the web of self-interest that motivates the private sector. The politicians and civil servants who make up government have 'private' interests of their own, and these must be taken into account in the analysis of government policy.

This is the 'public choice' perspective. It is important because it drastically revises our *a priori* assessment of the likely effects of government intervention and the desirability or otherwise of *laissez-faire*. The traditional approach to policy was to identify a problem and then simply assume that government could solve it, and would. When the problem was approached in this way it was natural to see market failures everywhere and to support intervention to correct them. All this alters when government is viewed as a self-interested institution itself, or as a coalition of self-interested actors. When this perspective is taken the emphasis shifts to the nature of governmental interests and what mechanisms, if any, exist to encourage governmental agencies to promote the larger 'public good'. The conclusion, all too often, is that it is governments that fail and markets that work.

This *Hobart Paper* applies public choice analysis to one of the last bastions of accepted government intervention—the monetary system. The failures of monetary policy are widely accepted, but most economists still believe that the solution is to find the 'right' sort of monetary policy, or the 'right' sort of rules to

impose on the monetary authority. Building on the work of Professor F. A. Hayek (1976) and others, this *Hobart Paper* argues that this approach is fundamentally misconceived because it ignores the source of the problem. We shall never find the 'right' monetary policy because no such thing exists, and the 'monetary authorities'<sup>1</sup> cannot solve our monetary problems because *they* are the source of them. Since current monetary problems are the result of state meddling with the monetary system, the only real solution is to roll back the apparatus of intervention and allow market forces to provide a safe and stable monetary system. It should be emphasised that 'money' is not fundamentally different from other commodities—it is best provided through free competition.

### Overview of the Study

This *Hobart Paper* is organised as follows. Section II introduces the notion of competitive private money and discusses some of the conventional arguments made against the privatisation of money. It compares bureaucratic or political 'solutions' to monetary problems with market-based solutions, and concludes that there is (at least) a *prima facie* case that market solutions are superior.

There are two main issues in the controversy over free banking. The first is whether the banking system would be more or less stable under free banking. This is discussed in Section III. In particular, the claims are examined that such a banking system is 'inherently unstable' and that it is this inherent instability that creates the necessity for the central bank to regulate the banking system and act as its lender of last resort. Contrary to widespread opinion, a competitive banking system is not inherently unstable and it can protect itself in various ways if only it is allowed to do so. The 'need' for state regulation and a central bank acting as a 'lender of last resort' arises only because the automatic stabilising mechanisms of a competitive market have been suppressed. In addition, there are reasons to believe that the efforts of a central bank to stabilise the banking system have exactly the opposite effect. A *laissez-faire* banking system

<sup>1</sup> The term 'monetary authorities' refers to the governmental (or quasi-governmental) agencies responsible for regulating and controlling the monetary system. In the UK these authorities are the Bank of England and the Treasury to which the Bank is theoretically accountable.

would therefore be considerably more stable than one with a central bank and extensive monetary regulation.

Next, the age-old question of the 'monetary standard' is examined in Section IV. (The monetary standard is the commodity in terms (of units) of which prices are expressed.) The standard used to be gold, but the link with gold was broken by state intervention and a 'fiat' standard substituted (with no commodity link) whose value is ultimately determined by a national central bank. It will be argued that this system creates enormous problems which can be alleviated only if the monetary standard is removed from political control.

Finally, Section V discusses how the monetary system might be depoliticised. It is sometimes suggested that the most appropriate course of action is to impose a system of 'fixed rules' on the monetary authorities to restrict their range of discretion. This would certainly improve on the current 'discretionary' régime, but it would leave some of its basic features still intact. Other options are to join the European Monetary System (EMS) or to establish a European Central Bank. These too fail to address the fundamental defects of the current monetary régime. The best course of action would be to abolish central banks entirely. A series of reforms is then outlined, designed to dismantle the apparatus of state control and allow market forces to establish and maintain a stable and efficient private monetary system.

## II. MARKETS, BUREAUCRATS AND MONEY

### The Benefits of Competition

It is generally agreed among economists that most industries are best organised along the lines of free competition and private ownership. This is because the market process under these conditions best provides individuals with the incentive to promote the 'social good'<sup>1</sup> and the information they require to do so. Starting from the reasonable premise that each individual 'neither intends to promote the public interest, nor knows how much he is promoting it',<sup>2</sup> prices in the free market give him an indication of the value that other people attach to a commodity and provide an incentive to economise on it. A manufacturer, for instance, does not have to know *why* the price of the good he produces has risen; he needs only to be aware that it *has* risen and that he can increase his profits by producing more. This is exactly the information that market prices convey. A rise in price thus leads a self-interested producer to increase output and alleviate the shortage of the good whose price has risen. In this way, the market allows an 'invisible hand' to operate which harmonises the private interests of different individuals, and thereby helps to ensure that the 'socially best' outcome actually results.<sup>3</sup>

A remarkable feature of this insight is its generality: it does not tell us that competition is best in this or that industry, but that competition is *generally* best unless we can point to conditions in a specific case that would lead us to conclude otherwise. It suggests a *prima facie* case in favour of free competition which places the onus of proof on those who assert that in particular situations competition should be suppressed and replaced by something else.

<sup>1</sup> The term 'promoting the social good' means only that individuals have an incentive to cater to the desires of others.

<sup>2</sup> Adam Smith (1776), *An Inquiry into the Nature and Causes of the Wealth of Nations*, reprinted by P. S. King & Son, London, 1936, p. 423.

<sup>3</sup> This process is discussed and evaluated in Norman P. Barry, *The Invisible Hand in Economics and Politics*, Hobart Paper 111, IEA, 1988.

## Competition in Money

In the light of this reasoning, it is curious that the majority of economists have long insisted that the banking industry should *not* be competitively organised. The prevailing view is that while a limited amount of competition might be useful (for example, in the provision of bank deposits), this competition should be heavily regulated and the supply of currency should be monopolised by a central bank, and the central bank should also be made responsible for the safety of the monetary system. Money is thus regarded as somehow 'different' from other commodities. In support of this argument, it is sometimes claimed that private issuers of notes and currency would not maintain the value of their money, and would debase it until it became worthless.<sup>1</sup> 'Gresham's law' would operate to ensure that the 'good' private monies would be driven out of circulation by the 'bad' ones. It was also felt that competition in the production of money would produce harmful effects for third parties that could be eliminated only if the state suppressed competition and controlled the supply of money itself. In particular, it was felt that failures of private money issuers would cause large-scale disruptions (for example, because depositors would lose their money and credit relationships would be disrupted) which could be avoided only by state intervention to prevent banks from failing. This was the origin of the widespread belief that banks alone of all firms were 'too important to fail'.

These arguments do not stand up to serious scrutiny. Consider the Gresham's law argument. There is no reason to suppose that competition among the issuers of 'money' would lead to the elimination of superior monies<sup>2</sup> any more than there is to suppose that competition among the producers of automobiles would lead to the disappearance of high-quality cars. Gresham's law operates only when the rate of exchange between good monies and bad monies is held fixed by some outside agency (i.e., the state). If the law decrees the prices of two goods to be equal, the bad one will always drive out the good.

<sup>1</sup> These arguments were made by Milton Friedman (1960), *A Program for Monetary Stability*, New York: Fordham University Press, 1983 reprint, p. 8. The attempted use of Gresham's law ('bad money drives out good') to show that free banking would not 'work' is due to W. S. Jevons (1875), *Money and the Mechanism of Exchange*, 20th edition, London: Kegan Paul, 1920, p. 63.

<sup>2</sup> In this context a 'superior' money is one whose value is stable, and expected to remain so. An 'inferior' or 'bad' money is one of unstable or uncertain value.

## *Integration with a Vengeance*

by

**CLIVE WOLMAN**

*If you don't like Mr Lawson's monetary policies,  
you no longer have to use Mr Lawson's currency*

Events ... demonstrate that however non-interventionist governments profess to be, they will always be drawn into misjudged, mistimed and inconsistent fiddling with the levers of demand management. Increasingly complex and subtle methods of creating credit and liquidity economy have rendered worthless attempts to control some artificial definition of the money supply.

The only way of escaping the effects of monetary mismanagement has been suggested by two other events in recent months. The big one has been the orchestrated build-up of pressure for the economic integration of the European Community by 1992. Of more immediate and personal relevance has been the UK launch of mortgages charging fixed interest rates as low as 4.5 per cent, but denominated in Swiss Francs and other European currencies.

The message is that if you don't like Mr Lawson's monetary policies, you no longer have to use Mr Lawson's currency. The breakdown of the barriers to the free circulation of other European currencies in the UK gives you an alternative.

The underlying attraction is that if consumers and businesses have a genuine choice in their use of currencies so that any inflation-threatened currency suffers a swift and drastic contraction in its usage across the whole population, the discipline on the issuers is much tighter. Pan-European competition would ensure that those central banks or other issuers which discovered the most effective methods of monetary control would be rewarded with a fast-growing market share.

Most enthusiasts for European integration have been lobbying in the opposite direction, for the UK to join the European Monetary System—and thus to tie itself to the Deutschmark—as a transitional step towards a single European currency. But mega-currencies create the potential for mega-blunders. The Bretton Woods fixed exchange rate regime, which tied the world to US monetary policy, guaranteed global inflation in the early 1970s when the US authorities got it wrong.

Instead of political lobbying, EMS enthusiasts might focus on

ways to make it easier commercially for us all to use Deutschemarks and other currencies in ordinary personal and business transactions.

The more traditional monetary economists such as the former Bank of England economic adviser Professor Charles Goodhart argue that people would find it so difficult to discover and work out exchange rates and prices in different currencies that the costs would swamp any benefits.

That may be taking too insular a view. Professor Friedrich Hayek's long-standing advocacy of privately-issued competing currencies was based partly on his experience living in an Austrian border town where both Austrian and German currencies circulated. Residents of Hong Kong, Canadian and Irish border towns and of many parts of Eastern Europe and Turkey find it similarly easy to cope. Even those Brits who confess to complete innumeracy seem to pick up a good sense of values in pesetas or francs when they hit the duty-free shops.

The dollarisation of the Israeli economy, in the face of formidable legal obstacles, indicates how multiple currencies come into increasing use. Even in the mid-1970s, when inflation was only slightly above UK levels, house and flat prices and an increasing number of loans were set in dollars. As inflation accelerated, dollars were used for car prices, air tickets and holidays abroad and hotels, then furniture, refrigerators and electrical goods. By the mid-1980s, even supermarkets started quoting in dollars.

In the UK, European currencies would be particularly suitable for mortgages and other loans, as more cross-border financial services are marketed, and also for cross-Channel holidays and travel and for high value imported goods. The cost of sticking price labels even on supermarket goods in two or three currencies would be tiny. With the growing use of credit cards, 'smart' cards and electronic funds transfer devices, settlement at the tills could be in whatever currency the customer specified.

The longer-term possibilities for monetary reform have already attracted many interesting—and cranky—proposals. If the use of alternative, competing currencies becomes firmly established, governments would be able to privatise the issue of currencies and cede control of monetary policy. It might, for example, franchise the tarnished but valuable sterling brand name to several competing issuing banks. If you think the proposal is outrageous, you probably thought the same six years ago about the privatisation of the electricity supply industry or the prison service, both of which have been models of professionalism compared with the management of money.¶

(Extract from an article in the *Financial Times*, 3 September 1988, Section II, p. 1.)

People will keep the higher-quality goods and pass on the inferior ones. This behaviour has nothing to do with 'money' as such, but with the law that fixes an unrealistic rate of exchange between the two goods. Under genuinely free competition, on the other hand, a 'bad' money would depreciate and thereby inflict losses on holders, and their fear of more losses in the future would lead them to seek an alternative whose value was more certain. In this way the producers of bad money would be driven out of business in much the same way as inferior producers of anything else.

Nor is there any reason to suppose that competition among the producers of money leads to harmful effects on third parties. Competition would provide a discipline on producers to observe satisfactory standards and maintain a stable monetary system. (This argument is discussed at some length in Section III.) The claim that the state can protect the public from the disruption occasioned by money producers going out of business is also implausible because if it is correct it proves too much: the failures of other large firms can also be massively disruptive to local communities or even whole regions, but it does not follow from this that they too should be prevented from going out of business. Those who advance this argument have never been able to explain convincingly why it applies only to banks, and not to other large firms as well. In any case, it ignores the important consideration that it is the *threat* of going out of business that provides the incentive for the producers of 'money' to maintain their standards. The removal of that threat undermines the very mechanism which maintains the quality of the service they provide.

The argument that the state should protect the private sector from monetary disruption also ignores the historical evidence. Private monetary systems in the past have been stable and highly successful.<sup>1</sup> By contrast, the history of government money is an appalling record: governments have regularly debased their currencies, driven their banking systems into insolvency, and plundered their subjects' wealth by various means of legalised fraud—at the same time wearing the mantle of defender of the monetary system. If the historical record on monetary regulation is anything to go by, it surely suggests that the public

<sup>1</sup> The most impressive of these episodes is the free banking experience of Scotland (1728-1845), which is discussed in L. H. White (1984b), *Free Banking in Britain: Theory, Experience, and Debate, 1800-1845*, Cambridge: Cambridge University Press.

need protecting *from* the state, not *by* it. *It is precisely because money is important that its provision cannot safely be left to the state.*

### The 'Public Choice' Perspective

Any analysis of this subject must not only recognise the potential benefits of competition, but also incorporate a sound understanding of the role of 'public' agencies. A worthwhile analysis of the role of the state can be carried out only if political and bureaucratic interests are understood and taken into account. Whenever the government is involved in the monetary system, monetary policy becomes an inherently *political* matter determined by the interplay of political (and to some extent, bureaucratic) interests. There is no mechanism to ensure that this non-market incentive structure delivers a desirable outcome. The replacement of competitive forces by political and bureaucratic imperatives destroys the harmony of interests created by the free market. The 'invisible hand' is the only reliable method yet discovered to encourage producers to cater to the desires of consumers, and its suppression makes an inferior outcome inevitable.

This view of 'public' agencies is in sharp contrast to the traditional view that they can be treated as beneficent bodies which 'stand above' mere private interest and only intervene when it is in the broader public interest to do so. The latter view was dominant for most of the post-war period and was the basis of the Keynesian philosophy of the mixed economy in which the state intervenes to correct the 'inherent' failures of private interest in the free market. In its support the dubious argument was often advanced that it was 'obvious' that the free market had failed, and many people still accept this contention today.<sup>1</sup> But what a 'market failure' would look like in practice, let alone what the government or anyone else should do about it, is rarely spelt out. It is precisely because a 'market failure' is so difficult to identify that the term is frequently used in practice merely to describe a state of affairs that the observer considers to be undesirable, regardless of its true causes, and regardless of whether or not it is even *possible* to improve upon it. Used in this way, the term loses any economic meaning it had and becomes

<sup>1</sup> The claim that markets had 'obviously' failed was arguably the central tenet of the Keynesian Revolution. A reading of Chapter 2 of Keynes's (1936) *General Theory* should dispel any doubts about this.

little more than a codeword indicating the desirability of state intervention more or less for its own sake.

An interventionist régime is sometimes also defended on the ground that the democratic process would suffice to keep 'sectional interests' in check.<sup>1</sup> The weakness of this argument, apart from the countless examples to the contrary, is that it confuses the *way* in which policy is determined with the actual *policies* that are adopted. Policy may be determined by democratic bodies that are ultimately answerable to their electorates, but this merely indicates that democratic governments have a greater incentive to adopt popular policies—or perhaps merely populist ones. It certainly does *not* establish that the policies they adopt are wise or moral ones, or that the decision-making procedure they use to make policy is a sensible one. Indeed, democratic government can be positively *dangerous* if it is associated with a belief that it can do no wrong. As Hayek explains:

'The tragic illusion was that the adoption of democratic procedures made it possible to dispense with all other limitations on governmental power. It also promoted the belief that the "control of government" by the democratically-elected legislature would adequately replace the traditional limitations, while in fact the necessity of forming organised majorities for supporting a programme of particular actions in favour of special groups introduced a new source of arbitrariness and partiality and produced results inconsistent with the moral principles of the majority. . . . The result of this process will correspond to nobody's opinion of what is right, and to no principles; it will not be based on a judgement of merit but on political expediency'.<sup>2</sup>

The faults identified above are serious weaknesses in the interventionist view of public policy, but its most important weakness is that it simply ignores the problem that has to be addressed. The real problem is to design and implement an institutional structure that harmonises the interests of *all* the individuals operating within it, and this cannot be done if it is simply assumed at the start that public servants themselves are beyond 'mere' private interest. To invoke the state as a *deus ex machina* that resolves all the problems of self-interest and

<sup>1</sup> This was also one of Keynes's principal beliefs, one which he held in common with most of the socialist left.

<sup>2</sup> F. A. Hayek (1979), *Law, Legislation and Liberty*, Vol. 3: *The Political Order of a Free People*, Chicago: Chicago University Press, and London: Routledge & Kegan Paul, pp. 3, 9.

imperfect markets is to assume away an essential part of the problem that must be addressed.

### **A *Prima Facie* Case for Monetary *Laissez-Faire***

The above sets the stage for an analysis of the free banking controversy. The main point to keep in mind is that the notion of the 'invisible hand' suggests a *prima facie* case in favour of free competition. The burden of proof must surely lie on those who deny its applicability to the provision of 'money'. Supporters of central banking must establish why 'money' is 'different', and what it is about this difference that justifies a central bank. In doing so, they must provide convincing reasons to believe that the mix of political and bureaucratic interests implicit in central banking produces a superior outcome to that of the free market.

### III. THE STABILITY OF THE BANKING SYSTEM

In a free banking system financial intermediaries—banks, building societies, credit companies and so on—are at liberty to engage in whatever lending activities and issue whatever notes or deposits they wish, subject only to the constraint that the public willingly accepts their liabilities. This contrasts with a central banking system in which banks' activities are regulated in various ways. The regulations usually take the form of restrictions on the notes or deposits that banks are permitted to issue, and there are sometimes restrictions on their lending activities as well. In a central banking system, the central bank also has a monopoly of the issue of notes.

The controversy over free banking centres on two main issues:

- (a) the mechanisms that exist to discipline over-issue under each system; and
- (b) the ability of the banking system to protect itself against bank runs, and whether there is any necessity for a state-sponsored 'lender of last resort' to protect it against them.

Before examining these issues, however, it is important first to explain how a free banking system would operate in practice.

#### **How a Free Banking System Would Operate**

Banks operate by accepting certain assets and then lending them out again. When they accept assets, they issue receipts—notes and deposits—which the public uses as stores of value and as media of exchange in its day-to-day trading activities. The income of the banks comes from interest-earnings on their loans. Bankers therefore depend on the deposits they can attract from the public and compete with one another for them. One way in which they can attract deposits is by offering interest on them. They would also make their deposits attractive by reassuring the public that the notes and deposits they issue would retain their value. The best way to do this is to offer the public a 'convertibility contract'—that is, a bank would legally bind itself

to 'redeem' specific liabilities against reserve assets on terms and conditions explicitly stated in a contract between the bank and individual depositors. The most obvious legal obligation would be to make specific liabilities convertible on demand—that is, for the bank to promise to redeem them on demand without notice from creditors. Alternatively, the convertibility contracts might instead give the banks the option of insisting on notice, in return for compensating creditors for the delay. Whatever the precise features of this contract, however, the important point is that competition would force them to offer some such contract: any bank that tried to issue inconvertible liabilities would not be able to give the public a *credible* assurance that their notes and deposits would retain their value, and the public would turn to other banks that were prepared to make such commitments. Competition among banks would therefore eliminate inconvertible currencies.

### *The Discipline against Over-Issue*

The fact that banks issue convertible liabilities implies that the amount in circulation is limited by the demand of those who want to hold them. Should a bank issue more notes, say, than the public are willing to hold, the 'excess issue' would be returned to the bank for redemption under the terms of the contract between the bank and the note-holder. A bank can put as many notes into circulation as it likes, but the public will determine how many of them actually stay there.

### **The Evolution of a Clearing System**

The mechanism disciplining over-issue is the public returning the surplus notes or deposits to the bank that issued them. In practice, it would be quite inconvenient for members of the public to go directly to the bank that issued a particular note or deposit. Instead, they would demand redemption indirectly by depositing the 'excess issues' with their own bank, and their bank would present them to the bank that issued them. They can do this because self-interest would lead the banks to accept each other's notes and cheques drawn on each other's deposits. These 'clearing' arrangements would gradually evolve under free competition because pairs of banks would realise that if they agreed to accept each other's notes (or cheques) from the general public, then the latter would be more ready to use them, and so the demand for them would rise at the expense of substitutes that

the public might have used instead. The two banks would then arrange to return each other's notes or cheques at frequent intervals and pay the difference in some agreed-upon medium. Since such an arrangement is in the mutual interests of any two banks, all pairs of banks would benefit from it, and the most convenient way to organise these swaps would be to establish a central clearinghouse. The clearinghouse would arrange regular clearing sessions at which the banks would return each other's notes and cheques and settle up with one another.

### *The Clearinghouse Check on Over-Issue*

The importance of the clearinghouse in this context is that if a bank does issue too many notes or deposits, the public is likely to place most of that excess issue with its own banks—and for most that will be a different one to the one which over-issued—and so the excess issue will be returned indirectly to the issuing bank via the clearinghouse rather than directly by the public. Had there been no clearing system, the excess issue could be returned only by the initial holders or the people who subsequently obtained the notes going back to the issuing bank and asking for their 'money back' personally. This would certainly check over-issues, but it would do so more slowly and with more inconvenience to the public than a clearinghouse system.<sup>1</sup>

### *Historical Evidence*

These conclusions seem to be borne out by the available historical evidence. A note-clearing system was developed during the free banking period in Scotland and was widely credited with checking potential over-issues of notes.<sup>2</sup> After the development of its note-clearing system, Scotland appeared to enjoy a relatively stable system of note issue. In England, by contrast, there was a series of acute crises in the early 19th century and many observers blamed these on over-issues of notes by the Bank of England. The comparison of Scotland and England in the early 19th century is therefore consistent with the claim that the presence of a clearing system among multiple note-issuers helps to stabilise the note issue.

Another example of a note-clearing system is the famous

<sup>1</sup> This is explained in more detail in Vera C. Smith (1936), *The Rationale of Central Banking*, London: P. S. King & Son.

<sup>2</sup> Discussed, for example, by L. H. White (1984b), *Free Banking in Britain: Theory, Experience, and Debate, 1800-1845*, Cambridge: Cambridge University Press.

Suffolk system in New England. This originated with the attempts of city banks to curtail the issues of out-of-town banks whose notes circulated widely in the cities of New England—in part because of the difficulties of redeeming them. The city banks wanted to increase their market share and the Suffolk Bank of Boston set up a system to clear the notes of member-banks and collect out-of-town notes for redemption. This had the effect of reducing the costs of redeeming out-of-town notes, and curtailing the note issues of those banks. The operation of the Suffolk system was summarised by George Trivoli:

‘The Suffolk system was a free enterprise regional bank clearing system which operated with great success from 1825 until 1858, and which created lasting benefits for New England’s economy. Furthermore, the system’s requirement that reserves be deposited in a central depository, and its effective provision for clearing and redemption, demonstrate the feasibility of a private gold-related banking system which might well eliminate the necessity for a government-operated central bank.’<sup>1</sup>

#### *The Absence of Note-Clearing Under Central Banking*

One of the differences between this system and central banking is that while the latter usually allows competition among deposit banks, it imposes a monopoly over the supply of bank notes. It follows that while a deposit clearinghouse could be established to discipline the over-issue of deposits, a note-clearing system could not be instituted *because there is only one note issuer*. This can be likened to the situation where multiple note issuers were able to form a cartel to expand together without any of them suffering losses on their clearing activities. The only discipline against the over-issue of notes would come from direct returns by the general public—a less effective process, as already noted—and that is the case only if the notes are convertible. If notes are inconvertible, as they are at present, there is no way in which an excess of notes can be returned to their issuer. All the extra issues can then do is to bid up prices. With a monopolised note issue there is consequently either a weaker discipline on the note issue, or none at all.

In addition, it should be remembered that when the currency is inconvertible,<sup>2</sup> the central bank’s notes and deposits form the

<sup>1</sup> George Trivoli (1979), *The Suffolk Bank: A Study of a Free-Enterprise Clearing System*, London: Adam Smith Institute, p. 28.

<sup>2</sup> An inconvertible currency is one whose issuer makes no legally binding promise to buy it back (i.e., to redeem it).

principal reserve used by the public, and have a pivotal role in the monetary system because of the lack of close substitutes. Over-expansion by the central bank would increase the deposit banks' reserves, lower interest rates and lead to a general monetary expansion. This happens because the additional notes and deposits *have* to be held—there is no mechanism to return them to the issuer—and so the rest of the banking system has to adjust to accommodate them. Over-expansions are therefore very disruptive. In contrast, when the currency is convertible, much of the disruption is avoided because the excess-issues can instead be returned to the issuer.

### *The Central Bankers' Argument*

This is the gist of the case that free banking provides a more effective check on the supply of currency. Supporters of central banking have, however, argued that there is an inherent tendency for competition to encourage banks to over-expand during times of general prosperity, and to contract the money supply again when market conditions become unfavourable. A central bank is supposedly needed to restrain this behaviour. Proponents of this view sometimes point to episodes like the 'secondary banking crisis' in the UK in 1974-75, the 'world debt crisis' of the early 1980s, or the recent bank failures in the USA and Canada as examples of how bankers' 'herd instincts' can run wild unless reined in by a central bank. While this line of argument seems plausible, it encounters a number of serious difficulties:

- It suggests that banks do not pursue their own self-interest. The first rule a banker learns is to judge his risks, and a good banker knows that he must beware the 'herd instinct' which might get him into difficulties when the business cycle turns.<sup>1</sup> If a banker suspects that other bankers will compromise their longer-term profitability by seeking 'easy profits' in the short term, then he can gain a competitive edge by cultivating a reputation for level-headedness. As George Kaufman notes, Citicorp (a US bank):

'... in its earlier days prospered in periods of general financial

<sup>1</sup> This does not, however, preclude cycles under free banking. Indeed, we would expect cycles if there were a real cycle along which the economy moved, as suggested by recent research on 'real business cycles'. The point at issue here is whether competition among banks is an important contributory factor to cyclical instability, and that is quite a separate matter.

distress by maintaining higher than average capital ratios and providing depositors with a relatively safe haven'.<sup>1</sup>

- Even if it is conceded that competition among banks contributes to the cyclical instability of the economic system, that does not establish a case for suppressing competition. It is not costless to suppress competition, and the costs must also be taken into account. There may also be alternative ways of dealing with the instability. What the advocates of this claim must explain is why suppressing competition is the cheapest and/or most effective solution, and this has yet to be done.
- The historical experience of relatively free banking—in Scotland in the late 18th and early 19th centuries, in Canada for much of the 19th century, and in the USA during the period before the Civil War—does *not* confirm the claim that relatively unregulated banking systems experience more pronounced cyclical expansions and contractions. If these experiences are compared with those of more regulated banking systems, the firm impression gained is that the less restricted systems were considerably more, not less, stable. I have already noted this when comparing England and Scotland in the early 19th century, but the relatively free Canadian banking system in the 19th century was also considerably more stable than its counterpart in the USA. The evidence also strongly suggests that the replacement of the decentralised 'free banking' systems by the National Banking System in the USA during the early 1860s did much to destabilise American banking.
- Finally, in the cases where the 'free market' has got itself into difficulties, there has usually been an alternative explanation. For example, the secondary banking crisis in the UK was preceded by an unparalleled monetary expansion which created highly disturbed financial conditions. It is, therefore, hardly surprising that some of the smaller fringe banks got into difficulties when the artificially created 'period of prosperity' ended. During the world debt crisis, some banks appeared to take risks they would otherwise have avoided in

<sup>1</sup> George Kaufman (1987), 'The Truth about Bank Runs', *Staff Memorandum*, SM-87-3, Chicago: Federal Reserve Bank of Chicago.

the belief that in the final resort their own central banks or the International Monetary Fund (IMF) would have to bail them out. The world debt crisis is perhaps a good example of the dangers of the idea that banks are too important to be allowed to fail. The recent North American bank failures were largely caused by state-managed deposit insurance systems. These schemes tried to stabilise the banking system by guaranteeing banks' deposits in the hope of preventing a 'run' on banks by their depositors. However, the deposit insurance guarantee also removed a major restriction on excessive risk-taking by bank managements—the threat of a bank run. This encouraged banks to take more risks, and hence it was more likely that some would eventually fail. Moreover, the resulting losses were increased considerably by the insurers' failure to act quickly to close down insolvent institutions. Bureaucratic procedures led to long delays during which insolvent banks could continue to operate and take wild risks in the knowledge that they had nothing more to lose if the risks did not pay off, and everything to gain if they did.

These alternative explanations emphasise government policy or regulation rather than any 'inherent' problems with unregulated markets. In any case, it is most unconvincing to blame these episodes on the 'free' market when the markets in question were subject to extensive interference and were therefore patently *not* free.

### **Bank Runs and Banking Instability under *Laissez-Faire*<sup>1</sup>**

Banks are financial intermediaries which borrow funds from lenders (e.g., note-holders and depositors) and lend these at interest to make a profit. In general, they lend funds by buying assets whose values are not fixed in nominal terms (e.g., shares and bonds). The value of these assets tends to vary when interest rates change. On the other hand, a bank's liabilities tend to have fixed values. Banks, therefore, assume the risk that the value of their assets may fall below the value of their liabilities. If this risk eventuates, a bank would be unable to satisfy all the claims upon it, imposing losses on its creditors.

<sup>1</sup> The discussion of bank runs in this section relies heavily in parts on Kaufman (1987), *ibid.*

Note-holders and depositors therefore have an incentive to monitor the bank to ensure that it continues to be solvent. The poorer or more risky the bank's assets, and the smaller the reserves it keeps, the greater is the risk that a shock might wipe out the bank's net worth and inflict capital losses on its note-holders or depositors. Note-holders and depositors would form expectations about the chances of this happening. Their expectations of losses would depend on factors like their perceptions of the quality of the bank's assets and its capital reserves. If sufficient note-holders or depositors fear that the bank is near insolvency, they would cash in their notes or deposits, and the bank would face a run.

Consider the following example. A bank faces a run and has insufficient reserves to meet the demands to cash in notes and deposits. It has two possible sources of extra liquidity. One is to borrow on the open market. If potential borrowers consider the bank to be sound, it should have little difficulty in obtaining funds from this source. Borrowers would consider it a safe risk and be prepared to lend to it at market interest rates. Unless they had reason to doubt the soundness of the banking system as a whole, those who cashed in their notes and deposits would transfer them elsewhere, and hence other banks would experience a greater demand for notes and deposits. These banks would therefore have more funds to lend and be able to make an extra profit by lending them to the banks experiencing the drain.

In short, the financial system would simply recycle funds back to the bank experiencing the run, and this would normally enable it to meet the demands made upon it.

#### *'Firesale' Losses*

It is possible that if there was some doubt about the soundness of the bank experiencing a run it would find it difficult to borrow. It might find that funds could be raised only by selling its assets. If deposit withdrawals were sufficiently large, it might be forced to sell its assets at a substantial discount on their normal market value. It would then suffer 'firesale' losses. A soundly run bank would normally anticipate this danger, and maintain a sufficiently strong capital base. It would also seek to avoid 'firesale' losses by maintaining its reputation for financial prudence to enable it to obtain loans in an emergency, and to reassure its creditors. For these reasons a sound bank would be expected to

be able to withstand such runs without them posing a real threat to its solvency.<sup>1</sup>

If a bank is fundamentally sound, a run would only have the effect of forcing the banking system to recycle assets. It *may* also impose some losses due to the need to sell assets quickly at a loss, but otherwise no great harm would have been done. If, on the other hand, the bank were unsound, this would generally be known by other banks which would be reluctant to lend to it without the protection of collateral. The bank would be able to obtain funds only by selling assets at ever greater losses as depositors flocked in increasing numbers to redeem their deposits. Its losses would mount until it finally defaulted. In that case, the bank run would have performed the useful purpose of putting an unsound bank out of business. This releases the resources under its control and allows them to be re-channelled elsewhere.

If this happened, only the note- or deposit-holders who 'ran' first would recover all their funds, and those who were slower would suffer capital losses. A bank run would therefore reward those who were quickest to withdraw and penalise the rest. Knowing that once the suspicions of note- and deposit-holders were aroused this would precipitate a run, bank managements would have a strong incentive to take measures to preserve public confidence. They would avoid excessive risks and maintain both adequate liquid reserves and an adequate capital base. As George Kaufman concludes in a recent discussion of US banking before Federal deposit insurance:

'With all their deposits at risk, depositors had greater incentives to be concerned about the goings-on at their banks, to monitor their operations more carefully, and to exert discipline by either withdrawing their deposits or charging a higher interest rate for them if the banks' portfolios became too risky or their capital bases too small. *The very threat of a run served as a powerful source of market discipline*'.<sup>2</sup>

The *threat* of losses also provides shareholders with a strong incentive to monitor their managements and ensure that they do

<sup>1</sup> This raises the possibility that an otherwise sound bank might be driven into insolvency because of 'firesale' losses (e.g., Kaufman (1987)). As discussed below (pp. 36-38), however, we would expect the banks to give the clearinghouse 'lender-of-last-resort' powers to stop this from happening. We would not therefore expect to observe sound banks going into 'firesale' insolvency.

<sup>2</sup> Kaufman (1987), *op. cit.*, p. 13 (emphasis added).

not jeopardise their investments by taking excessive risks. These incentives would be even stronger if market pressures forced banks to maintain relatively high capital ratios, or to assume extended liability for their investments.<sup>1</sup> They would then have more to lose if they failed to monitor their managements properly.

### *The 'Contagion' Argument*

It is often asserted that a run on one or a small number of banks could turn into a run on the banking system as a whole—that bank runs could be 'contagious'. But why should note- or deposit-holders at one bank 'run' when they saw a run on another bank? If a run on one bank is caused by a shock specific to that bank, like the public revelation of a bad loan, creditors of other banks would have little reason to doubt the soundness of their own bank—although they might reduce their estimate of its net worth.<sup>2</sup> They would consequently have no reason to run. What tends to happen is that a piece of news—say, an observation that one bank has suffered a capital loss—leads to a stock market revision of the net worth of other banks, and the shareholders would then suffer an appropriate capital loss or gain. Provided it is sufficiently large, a bank's capital base would simply absorb the shock and there would be no reason for note- or deposit-holders to run. It follows that bank runs are not generally contagious, and when they do occur, they do not usually spread beyond one bank or related group of banks. Depositors then have no reason to hoard their funds, but transfer them instead to other banks which they still believe to be safe. Far from leading to a contagious loss of deposits from the banking system, runs generally involve a mere transfer of deposits from one bank to others.

### *Historical Evidence*

These conclusions are supported by the historical evidence. There are many cases where runs have failed to spread because there was never any real question of the soundness of the banking system as a whole. This was so with the recent bank failures in Texas and Alberta when the banks in question had

<sup>1</sup> Forms of extended liability were adopted by some of the Scottish and American free banks in the late 18th and early 19th centuries.

<sup>2</sup> A bank's net worth is the difference between its assets and its liabilities. A bank is insolvent when its net worth is negative (i.e., when its liabilities exceed its assets).

taken crippling capital losses on energy-dependent loans following the fall in the world oil price, but the American and Canadian banking systems as a whole were sufficiently diversified to be able to withstand the losses. In those cases, depositors transferred their accounts to banks they considered sound. The same happened with the failures of the Penn Square Bank and Continental Illinois in the early 1980s.

There is also the supporting evidence of earlier periods. For example, during the free banking period in Scotland (1728-1845) there was not one case in which the banking system as a whole was seriously threatened by a run on a particular bank. The last time that the banking system in England was in serious danger from a bank run was probably during the crisis of 1825-26, and that was almost certainly precipitated by the careless policies of the Bank of England. In Canada the last such instance was in 1837, and that seems to have been caused by the combination of a severe trade crisis and a domestic rebellion. Again, contagious bank runs do not appear to have been much of a problem in the USA before deposit insurance. To quote Professor Kaufman again:

‘... it appears that bank runs did not automatically lead to bank failures. Indeed, a study for the American Bankers Association in the late 1920s was summarized by a reviewer as relegating “the run as a real reason for [bank] suspensions ... to a position of minor importance. It is found to be an effect of banking difficulties rather than a cause ...” The evidence also suggests that the primary direction of causation was from problems in the real sector to problems in banking and not the other way round. *That is, both bank runs and bank failures were the effect and not the cause of aggregate economic contractions and hardships.*’<sup>1</sup>

### *Option Clauses*

A *laissez-faire* banking system could still respond to the risk of a system-wide bank run even though such a run would be most unlikely to occur. One way in which the banks could protect themselves is through ‘option clauses’ in their note-issue and deposit contracts. An option clause would give a bank the legal right to defer redemption by a depositor or note-holder provided that it later paid compensation to those whose demands for redemption were postponed.<sup>2</sup> Individual banks would adopt

<sup>1</sup> Kaufman (1987), *op. cit.*, pp. 12-13 (emphasis added).

<sup>2</sup> The use of option clauses to stabilise the banking system is explained in more detail in Dowd (1989).

such option clauses because these clauses would protect them from large unanticipated demands for redemption which might force them into 'firesale' losses, and note-holders and depositors would be willing to accept such clauses because they would reassure them that a temporary shortage of liquidity would not inflict large capital losses on their bank or force it to default on its obligations. The option clause would also relieve depositors of the anxiety that they had better be first in line if a bank run was going to occur. Many depositors and note-holders would conclude that if the bank was sound they would get their funds back with compensation for the delay.

On the other hand, if the bank was unsound the exercise of the option clause would relieve depositors and note-holders of the cost and risk of having to participate in a bank run. If eventually the bank became insolvent, they would appreciate that all the bank's remaining assets would be divided *pro rata* among its depositors and note-holders. Had the option clause not been available, however, the bank might have tried to remain in operation by selling further assets at an increasing loss, and depositors and note-holders would have been under considerable pressure to participate in a run because of the fear that they might otherwise have lost much more. An option clause reduces the worry that the slowest note-holders and depositors will lose virtually everything.

Either way, the incentive to panic and run would be considerably diminished, and the greater stability of the bank against liquidity panics would be to the mutual advantage of both the bank's shareholders and its note-holders and depositors. Option clauses were adopted by Scottish banks in the early 18th century—apparently for these reasons—and they seem to have been used reasonably successfully until they were prohibited by an ill-conceived Act of Parliament in 1765.

### *Stabilising Speculation*

A free market in banking could protect itself against a systemwide bank run in one other way. If such a run did occur, there would be a widespread demand to convert bank liabilities into the medium to which they were legally convertible. For the sake of argument, assume that this is gold. Since the price of bank notes in terms of gold would normally be fixed, the higher relative demand for gold would spill over into the 'overnight' gold market—the market for gold to be delivered in the

immediate future. Those who wanted gold would still be able to obtain it—provided they were prepared to pay the higher market-clearing price—while the rise would constitute a considerable inducement for those who had gold to lend it out. In effect, the price of ‘gold bills’<sup>1</sup> in the futures market would fall to discourage sales and encourage demands to buy.

The critical point is this: the price of bills would fall significantly below market assessments of ‘normal’, and so market operators who were prepared to take a medium-to-long-term stance could expect to make profits by buying gold bills (i.e., lending gold) at their current low prices with a view to selling them later when their prices had recovered. *In other words, if there was a shortage of gold, the market would reward those operators who were prepared to supply gold to the market and it would make those who wanted gold pay an appropriate temporarily higher price for it.* Over time the demand for gold would fall again, and the panic for gold would subside. In this way the bank run would abate and normal conditions would be restored.

### **The Development of a Private ‘Lender of Last Resort’<sup>2</sup>**

Protection against a bank run in a *laissez-faire* banking system will also appear through the development of a private lender-of-last-resort facility. In the previous section it was shown how banks would find it in their own mutual interest to establish a clearinghouse to manage the regular exchange of notes and cheques. It would be natural for such an institution to assume other functions that they could agree upon. One such activity would be to monitor the activities of member-banks and take on a ‘lender-of-last-resort’ role to help member-banks that were sound but temporarily illiquid. It might be in each bank’s mutual interest to submit its books for regular scrutiny in order to obtain independent confirmation that its affairs were in order. At the very least, each bank would see this as reducing the likelihood of it being forced into ‘firesale’ insolvencies should it experience a run. The public would recognise that the judgement of the clearinghouse was likely to be a reliable one because a positive vetting would imply that all banks were willing to allow the clearinghouse to lend it their funds. The public would appreciate

<sup>1</sup> I.e., bills to pay gold at some point in the near future.

<sup>2</sup> For more on the last-resort role of the clearinghouse, Richard H. Timberlake (1984), ‘The Central Banking Role of Clearinghouse Associations’, *Journal of Money, Credit and Banking*, Vol. 16, pp. 1-15, and Kaufman (1987), *op. cit.*

that they would have little incentive to lend their funds to an insolvent bank. In many cases, therefore, a bank in difficulty could ask for an extraordinary examination of its books with a view to obtaining temporary assistance, and if it was judged to be sound it would get the funds it needed and the run would abate. On the other hand, if the bank was refused assistance, note-holders and depositors would get a clear signal that the bank was unsound. They could then proceed to run and force it to close.

In the event of the run spreading to other banks, the clearinghouse might also be able to manage the crisis better than individual banks could on their own. For example, it could publish the aggregate balance-sheets of the banking system to reassure the public that the system as a whole was sound. If necessary, it could also alleviate the shortage of funds in a crisis by creating emergency 'substitute money' which it could 'retire' afterwards. Provided that they had no reason to distrust the clearinghouse itself—which would be tantamount to believing that the banking system as a whole was unsound<sup>1</sup>—the public would generally be willing to accept these substitutes. As Timberlake (1984) states, US clearinghouses issued emergency currencies during periodic crises from 1857 to 1907, and these were eagerly accepted by a public starved of hand-to-hand cash—and this despite the fact that their issue was more or less clearly illegal.

One final point must be emphasised about the role of private clearinghouses: they would have no powers assigned to them other than those agreed to beforehand by member-banks in their individual but mutual interests, and they would operate purely to further their member-banks' interests. They would not take into account any wider 'public interest'. Nor indeed would there be any reason to, since their essential task would be to discriminate between sound banks worthy of assistance and unsound banks that were not. They would have no 'official' supervisory or regulatory role, and their only sanction would be to announce publicly that they had refused assistance to a particular bank which had applied for assistance. Its creditors would then run and close it down. In this way a private institution pursuing its own legitimate selfish interests would be able to achieve the appropriate outcome with no power save that of withholding its support from banks it considered suspect. This illustrates how

<sup>1</sup> *Runs on the banking system as a whole appear to be extremely rare historically, and it is debatable whether they have ever occurred at all.*

effectively private institutions can monitor and police themselves provided only that they are given the freedom to do so.

### **Banking Instability under Central Banking**

What happens when the government intervenes to give one bank—the central bank—unique privileges and subjects the rest of the banking system to its authority? The most significant consequence of such a system of central banking is that it destabilises the banking system by suppressing some of the automatic stabilising that would arise spontaneously in the free market.

#### *Restrictions on Bank Liabilities*

One of the more attractive features of a *laissez-faire* monetary system is the ease with which it could accommodate any change in the public's relative demands for currency and deposits. If the public wished to convert notes into deposits, the banking system could simply print the additional notes to pay off the unwanted deposits. Since the public can always redeem unwanted bank liabilities and the banks are always ready to issue more on demand, it follows that the public will tend to hold just the amount they wish to hold. Any change in their desired holdings would be accommodated in the more or less automatic way that the banking system currently converts one kind of deposit into another.

This is not the case with central banking. Precisely *because* of the controls it imposes on the supply of currency, there is no longer any guarantee that the banking system can accommodate a change in the public's demand for currency, or that it can accommodate such a demand in the more or less effortless way it could had it been free to do so. To appreciate the way in which these restrictions can destabilise the banking system, consider what would happen if the public wished to convert deposits into notes but there were restrictions on the extent to which the banks could increase the note supply. As the demand for notes increased, the banks would run short of notes with which to redeem their deposits, and if the run continued, there would be a considerable danger that they might default. The danger of a run might be aggravated even further because the public would appreciate the banks' difficulties in meeting the demand for notes, and many people would be tempted to 'beat the rush' by trying to withdraw their deposits before the rest. The combination of

the restrictions on the note supply and the public's awareness of the restrictions imposed on the banking system would therefore be highly destabilising.

England after the passage of the 1844 Bank Charter Act provides an historical example of the way in which restrictions on the note issue could lead to bank panics. This Act gave the Bank of England a monopoly of the note supply and imposed on it a 100 per cent marginal reserve ratio for additional notes.<sup>1</sup> The English banking system was unable to accommodate sudden increases in the public's demand for notes, and their awareness of this weakness made the customers of the banking system extremely nervous. On three subsequent occasions the Bank was prevented from defaulting only by the Government intervening to promise that it would not be prosecuted for issuing additional illegal notes. Another example comes from the United States during the National Banking System period (1865-1914). It was widely known that the National Banks were not allowed to meet a large demand for notes, and so any increase in demand for them had the potential to cause a panic. Panics occurred in this way on a number of occasions, and they were only resolved by the issue of what was effectively illegal emergency currency—'clearinghouse loan certificates'—or by state legislatures intervening to allow the banking system to suspend convertibility.

These problems were sometimes aggravated further by additional restrictions. In the US National Banking System, for instance, the banks operated under relatively high reserve requirements. A temporarily high demand for currency would lead to the public redeeming their deposits and driving down the banks' reserve ratios towards their legal minima. As reserve ratios fell, the public would anticipate that the banks would be unable to issue the additional notes they demanded and be forced to suspend convertibility. This anticipation would then provoke pre-emptive demands for redemption which would bring about the very suspension that everyone was anxious to avoid. These suspensions tended to interrupt the payments process and inflict considerable inconvenience and cost on both the banks and the public. Even the *threat* of restrictions could trigger off a run to redeem bank liabilities. To give just one example: when Franklin D. Roosevelt was elected President in November 1932, he refused to discount earlier statements he

<sup>1</sup> I.e., the Bank of England was allowed to issue additional notes only if it had the equivalent value of gold in its vaults.

had made about the desirability of a devaluation of the dollar against gold. Many people therefore rushed to convert notes and deposits into gold to avoid the capital losses that devaluation would bring. The very threat of intervention thus set off a run even before the intervention took place.

### *Lender-of-Last-Resort Policy*

If it arises in a free market, a crisis is most effectively handled by the clearinghouse functioning as a kind of private lender of last resort. The clearinghouse is ideally suited to carry out this function because the member-banks whose funds the clearinghouse lends have a strong incentive to ensure that it helps out solvent banks, not insolvent ones—each bank would want to ensure that it could obtain assistance, but as a group they would want to avoid encouraging ‘excessive’ risk-taking. They would, therefore, seek to impose rules on the clearinghouse association that provided assistance only to solvent banks.

### *A Central Bank as Lender of Last Resort*

The restrictions imposed on banks under most central banking régimes tend to increase the vulnerability of the banking system to runs. This places a greater burden on the lender-of-last-resort function, and creates a conflict of interests between those banks which require the facility and the central bank which is responsible for providing it. Nor is there any guarantee that the banking system would respond to a crisis in the automatic way it would have done under *laissez-faire*. The conventions and predictability of the clearinghouse are replaced by the bureaucratic procedures and ‘judgement’ of a central bank. The problem was aptly summarised by Richard Timberlake when explaining the institution of the Federal Reserve to take over the principal functions of the earlier clearinghouses. As he put it:

‘The Federal Reserve alternative . . . introduced a discretionary political element into monetary decision making and thereby divorced the authority for determining the system’s behaviour from those who had a self-interest in maintaining its integrity.’<sup>1</sup>

This lack of harmony manifests itself in a variety of ways. For instance, central bank officials and their political masters have quite different rules of tenure from people in the private sector who have to make their living in a competitive market-place.

<sup>1</sup> Timberlake (1984), *op. cit.*, pp. 14-15.

Clearinghouse officials are essentially customers of the banks they serve, and therefore have an interest to protect the banks. Central bank officials, on the other hand, typically enjoy large salaries on more or less unlimited tenure provided they avoid a major controversy that could lead to moves to replace them or curtail their privileges. At the same time, politicians are under constant pressure to court popularity, and are therefore often more concerned with the appearance than the substance of economic policy. All too often, neither central bankers nor their political masters are willing to take responsibility for 'awkward' decisions, and the temptation is either to delay difficult decisions or else to pass the responsibility onto someone else. Crises that would have been dealt with relatively easily at an early stage then escalate into major disasters that require drastic action. So it was in the early 1930s when the Federal Reserve System refused to acknowledge the banking crisis until much of the US banking system had already collapsed, and the panic was then stopped only when the Federal government intervened to close down all banks. A contemporary example is the gathering crisis in the US thrift industry. Over the past few years the Federal agency responsible for insuring the deposits of American savings and loan associations, the Federal Savings and Loan Insurance Corporation (FSLIC), has been accumulating a staggering amount of bad debts. For various political and bureaucratic reasons, no-one had any incentive to admit to the scale of the problem, and US regulators actively encouraged 'cosmetic' accounting practices which allowed insolvent institutions to remain in business and accumulate ever greater losses at the expense of the Federal taxpayer. As a result, taxpayers' losses are now estimated at about \$100 billion<sup>1</sup>—about two-thirds of the Federal budget deficit—and there could be worse to come.

Another difference in incentive structure arises because banks use their shareholders' capital while politicians usually use the public's taxes, and bank shareholders give their managements considerably less leeway in the use of their funds than the political process gives the politicians and central bankers. It is also far easier for public servants to disguise their losses than it is for bank managements which are externally audited and which are more directly accountable to those whose funds they might lose. Moreover, not all the money used to finance 'lender-of-last-resort' operations even belongs to the taxpayer. Central banks

<sup>1</sup> *The Economist*, 8 October 1988, p. 19.

frequently put pressure on other banks to participate in rescue packages which the latter would prefer to avoid and which leave them saddled with losses.<sup>1</sup> From the central bankers' point of view, such rescue packages are ideal because they reduce the central bank's own losses, give the appearance of diffusing the responsibility for the bail-out, and reduce their own political exposure. They illustrate, nonetheless, how the interests of the banks and of the central bank can sometimes be opposed to each other, and how the interests of the banks are usually sacrificed when they are.

### *Excessive Discretion in Central Banking*

A related problem is that the central bank has considerably greater discretion than a private clearinghouse bound by the rules imposed on it by its members. As a result, a central bank's actions will be less predictable. This makes life more difficult for everyone: the banks must always take into account the central bank's potential for erratic behaviour, and this in turn means that the central bank will have difficulty assessing the effects of its actions because it will be harder for it to predict private sector behaviour. Serious difficulties can arise if the central bank's actions do not conform to private sector expectations, or if the central bank misjudges the private sector. If the private sector were expecting the central bank to support it in a crisis, and the central bank refused, then this refusal could easily trigger off a major crisis.

Private banks might also be encouraged to take additional risks if they thought that the central bank would not or could not allow them to fail. A situation could then arise in which the central bank was effectively the 'prisoner' of the private banks, that is, imprisoned by their knowledge that in the last resort it would have to bail them out. The central bank, of course, would wish to dispel that notion and convince the private banks that its support could not be taken for granted and that it *might* let some of them fail, but it would be very difficult to make that threat credible if the private banks perceived that in a crisis the central bank would feel obliged to rescue them anyway.

<sup>1</sup> This is a common practice with the Bank of England (e.g., during the Johnson-Matthey affair). The Bank of Canada also 'persuaded' the big Canadian banks to participate in the rescue package arranged for the Canadian Commercial Bank in March 1985. Significantly, perhaps, the Canadian Government afterwards refused to compensate the banks for the losses they suffered.

The central bank could attempt to extricate itself from this situation by imposing on the banks what it considered to be the limits of 'safe and sound' banking. This might help the central bank to contain the risk-taking but it would still not resolve the conflict of interest. Nor is there any guarantee that the regulations would have the desired effect. It is not difficult to think of regulations that might be counter-productive in one way or another. Restrictions on banks' lending activities, for example, tend to reduce their ability to diversify their risks, and leave them more exposed to the danger of failure.

*Treating the Symptom, Not the Cause*

A major weakness of policies to 'protect' banks is that they often attempt to treat a symptom of the problem rather than its underlying cause. The classic examples are where an ostensibly 'lender-of-last-resort' policy is adopted to prevent bank runs, or where the state sponsors a system of deposit insurance to achieve the same goal. As the earlier discussion of bank runs suggested, however, runs perform a useful role in closing down insolvent institutions, and the *threat* of a bank run is a major factor serving to discourage a bank's management from pursuing excessively risky policies. Remove these and insolvent banks will continue in operation possibly long after they should, and managements will be encouraged to take risks they would otherwise have avoided. Banks will therefore adopt policies more likely to lead to failure, and this will aggravate banking instability rather than reduce it. Bank runs are therefore best regarded as a *symptom* of banking instability rather than a major *cause* of it, and attempts to cure the symptom by discouraging runs are more likely than not to aggravate the underlying disease.

#### IV. THE MONETARY STANDARD

'For a good money is so very difficult a thing to get, and Governments when they meddle with money, are so apt to make blunders . . . These considerations apply especially to a country like England, where the standard is the foundation of a fabric of credit, whose extension and delicacy make the slightest jar apt to produce the most formidable effects . . . What impresses me is that, with transactions of all kinds, with our enormous liabilities and credits, the ramifications of which no man can follow out, we can never tell, when we touch that standard, what confusion and mischief we may be introducing.'

SIR ROBERT GIFFEN (1893, p. 464)

What role does the 'monetary standard' play in the free banking proposal? The 'monetary standard' can be defined as the commodity in terms of units of which prices are generally expressed. In this country it is the pound sterling, in the United States it is the US dollar. The choice and nature of the standard is important because it has a decisive effect on how well the price system manages to co-ordinate the activities of decentralised agents by conveying to them 'correct' signals about relative scarcities in the economy. In any economic system information is very widely dispersed, and no one individual knows more than a very small fraction of the information that may affect him. He is therefore critically dependent on the price system to convey to him the information he needs to make the 'right' decisions. As Hayek has put it:

'We must look at the price system as . . . a mechanism for communicating information if we want to understand its real function . . . The most significant fact about this system is the economy of knowledge with which it operates, or how little the individual participants need to know in order to be able to take the right action. In abbreviated form, by a kind of symbol, only the most essential information is passed on and passed on only to those concerned. It is more than a metaphor to describe the price system as a kind of machinery for registering change, or a system of telecommunications which enables individual producers to watch

merely the movement of a few pointers, as an engineer might watch the hands of a few dials, in order to adjust their activities to changes of which they may never know more than is reflected in the price movement.<sup>1</sup>

A corollary to this, of course, is that the economy can start to malfunction very seriously if the price system generates the 'wrong' kinds of signals.

### **The Importance of a Stable Monetary Standard**

It is crucially important to ensure that the monetary standard is a suitable one that generates reasonably stable prices. This in turn requires that the real value of the monetary standard—the rate of exchange of the standard commodity against goods—should also be stable. Since the 'money price' of the standard commodity is by definition always one,<sup>2</sup> the only way in which the market for the standard commodity can make the quantity supplied equal to the quantity demanded, that is, 'equilibrate' in response to a change in market conditions, is by changes in the prices of all other goods. In any other market the price of the good would change to 'equilibrate' the market in response to some 'shock', but this cannot happen with the standard commodity because its price is fixed (at one), and this throws the burden of adjustment entirely onto other markets. The process of adjusting the relative price of the standard commodity is therefore quite different from the process by which all other prices are adjusted. These price adjustments are undesirable not only because they cause inconvenience and consume resources, but also because they tend to be irregularly spaced and give misleading 'signals' to market operators about changes in relative scarcities. They therefore undermine the process by which market signals co-ordinate economic activity. As Axel Leijonhufvud explained, during periods of inflation

'Transactors will not be able to sort out the relevant "real" price signals from the relative price changes due to these inflationary leads and lags. How could they? Messages of changes in "real scarcities" come in through a cacophony of noises signifying nothing . . . and "sound" no different. To assume that agents generally possess the

<sup>1</sup> F. A. Hayek (1948), 'The Use of Knowledge in Society', in *Individualism and Economic Order*, Chicago: University of Chicago Press, pp. 86-87.

<sup>2</sup> The 'price' of any commodity is the exchange ratio of that commodity against the monetary standard commodity. Since one unit of the standard commodity always exchanges for one other unit of the standard commodity, its 'price' is always one.

independent information required to filter the significant messages from the noise would . . . amount to presuming knowledge so comprehensive that reliance on market prices for information should have been unnecessary in the first place. Some adjustments in resource allocation that are needed will not be made. Some will be made that should not have been. . . . Transactors will gradually lose all firm conception of where the equilibrium neighbourhood for relative prices lies. Setting prices and determining reservation wages becomes a more difficult problem—and also a problem that no longer “makes sense” in the way it used to.<sup>1</sup>

Of course, if the inflation accelerates, the problems it causes become much worse and the whole fabric of economy and society begins to break down:

‘As the inflation proceeds and the real value of the currency fluctuates wildly from month to month, all permanent relations between debtors and creditors, which form the ultimate foundation of capitalism, become so utterly disordered as to be almost meaningless; and the process of wealth-getting degenerates into a gamble and a lottery.’<sup>2</sup>

A well-functioning economy thus requires a reliable price mechanism, and that in turn requires a monetary standard whose real value remains reasonably stable.

## **The History of the Standard**

### *Early Commodity Standards*

Initially the monetary standard was a commodity one. As a monetary economy evolved out of barter, a particular commodity (e.g., gold) came to be generally accepted as a medium of exchange, and it was natural to express prices in terms of units of that commodity. It could therefore be said that gold was both the medium of exchange and the monetary standard in terms of which prices were expressed. At this stage banks began to appear which issued paper substitutes for gold, and these paper substitutes—notes and deposits—had the advantage of being easier to store and move around. Deposits also had the advantage of earning a rate of return which gold did not. These

<sup>1</sup> A. Leijonhufvud (1981), *Information and Coordination*, New York and Oxford: Oxford University Press, p. 259.

<sup>2</sup> J. M. Keynes (1919), *Essays in Persuasion*, reprinted by W. W. Norton & Co., New York and London, 1983, pp. 77-78.

advantages led to notes and deposits gradually replacing gold as media of exchange, but they continued to be expressed in terms of units of gold and to be redeemable on demand into gold. Gold therefore continued to be the monetary standard even though it gradually lost its role as a medium of exchange.

### *Early Government Interventions*

At some point in this process governments began to intervene to restrict the activities of banks. In England, the Bank of England was set up in 1694 and granted privileges in return for a loan to the Government of William III to enable him to fight the French. In America, successive 'national' banks were established, first by the Confederation Congress during the Revolution, and then by the United States Congress. The first of these was the Bank of North America, and it was followed by the first and second Banks of the United States. In each case, the opponents of these national banks were able to get rid of them by preventing the renewal of their charters, and a lasting federal presence in the banking system was only established in the 1860s when Congress authorised the National Banking System.

The monopoly privileges centred around the note issue and they tended to grow over time. In return, the bank would give the government subsidised loans. Over the course of the 18th century, the Bank of England repeatedly increased its privileges by a series of 'loans' to the British government. Intervention in the monetary system was therefore a way in which the government could raise revenue, and it was a particularly attractive one from its point of view because the costs were heavily disguised.

As a result of this intervention, private individuals who wanted to use notes as exchange media were obliged to use the notes of the government's monopoly bank. As the banking system evolved further, gold also tended to be replaced as a reserve medium as well, and it was the notes of the monopoly bank that replaced gold in the vaults of other banks. In this way, the notes of the monopoly bank gradually became the principal reserve medium for the rest of the economy. For a period these notes continued to be convertible into gold, and gold was still the monetary standard, but little gold was now to be found outside the vaults of the monopoly bank. This bank was beginning to look more and more like a modern 'central bank'.

### *Establishment of the Fiat Standard*

The next stage came when the state intervened to sever the link between the monopoly bank's notes and gold. This was usually precipitated by a crisis in which the government wanted to squeeze money from the central bank but could do so only if it relieved it of the 'burden' of having to redeem its liabilities in gold. In England this happened in 1797 when the scale of government loan demands on the Bank of England depleted its reserves and left it defenceless when the landing of French troops triggered off a panic. The government then had to step in to save the Bank by ordering it to suspend redemption of its notes. In the United States something similar happened in 1861 when the Civil War broke out. The Federal government borrowed heavily from the banks and obliged them to redeem its own notes for gold. The strain on their reserves soon proved too much, and they too had to be allowed to suspend convertibility.

The break with gold entirely changed the nature of the monetary standard.<sup>1</sup> It meant that the standard was no longer a precious metal, but an inconvertible paper 'liability' issued by a particular institution or group of institutions regulated by the government. In England the issuing institution was the Bank of England. In the USA it was the system of National Banks, and later the Federal Reserve System. This development was highly significant because the value of the monetary standard<sup>2</sup> was now determined in a very different way.

While the gold standard was still in operation, the value of the monetary standard was determined by the conditions of demand and supply in the gold market. Central banks still had to maintain their gold reserves to satisfy demands for redemption, and their ability to manipulate the gold market was limited. The gold market therefore exercised a certain degree of discipline against those central banks that would have over-expanded their note issues or otherwise pursued their own 'independent' policies. This discipline was removed when the link with gold was broken. A central bank now had a monopoly of the monetary standard. By changing the quantity of notes it issued it

<sup>1</sup> It should be noted here that *at no point* did the private sector itself ever successfully abandon convertibility; it always took explicit state intervention to do it.

<sup>2</sup> The value of the standard is the rate at which it will exchange against other commodities. A fall in its value implies that it will exchange for fewer other commodities. Since its own price is given (above, p. 45, note 2), its value can fall only if the prices of other goods *rise*. Hence a fall in the value of the monetary standard implies higher prices.

could now manipulate its value, and therefore prices, in a way that was quite impossible while the standard continued to be gold. In principle, it could inflate or deflate prices to any extent it wished by increasing or decreasing the supply of money. Since the central bank operated under a system of rules established by the government, the private sector now found itself tied to a monetary standard whose value was in effect determined by government policy—a politicised fiat standard.

### **The Operation of the Fiat Standard**

Prices inevitably become an object of political conflict once the political process has acquired the power to control them. One of the most recurrent themes in history is the struggle between debtors and creditors to take control over monetary policy to manipulate prices in their own favour. If debtors have fixed interest loans, they stand to benefit from a policy of inflation because that reduces the real value of their debts, while creditors benefit from deflationary policies which raise the real value of the assets they hold. It might therefore be expected that politicians representing debtor constituents would be drawn towards more inflationary policies, while politicians representing creditor groups would prefer deflation.

More recently, a great deal of concern has been expressed about the effects of the rate of interest on the repayments of mortgage holders, and this concern generates considerable pressure on the politicians who represent them to promote inflationary policies. If market interest rates are judged to be too high, as they often are, they can be reduced only if the central bank injects additional liquidity into the banking system—that is, if it prints more currency. But the effect on interest rates soon wears off, and additional currency has to be issued to push interest rates down again. The central bank must keep on issuing currency to maintain low interest rates, thereby creating (or exacerbating) an inflation. Inflationary expectations rise, and bid up the ‘inflationary premium’ that lenders demand to maintain a given expected real rate of return on their loans. This higher inflation premium further increases the pressure on market interest rates. In response, the central bank has to inject currency into the system at an ever faster rate, and the inflation premium keeps rising. The result is an inflation rate that accelerates out of control. This process helps to explain the escalation of inflation in the early- to mid-1970s; the rate of inflation only stopped

rising after the British Government's macro-economic policies produced a crisis in 1976, and the IMF made lower monetary growth a condition for the bail-out package the government needed.

The main point is not whether these policies are right or wrong, but that the monetary régime gives politicians the power and the political process more or less forces them to interfere with the standard. Changes in the value of the standard tend to reflect changes in the balance of political power between those groups which benefit from inflation and those which lose from it. Among other things, this implies that the current relatively low rate of inflation merely reflects the strength of the present anti-inflationary coalition—itsself a consequence of the fright that most people experienced during the last bout of high inflation—and there is every reason to expect inflation to rise again as that coalition begins to lose its grip. Unless something is done to change the monetary régime, people's memories of high inflation are likely to recede over time, and with this their fear of inflation. The way would then be open for policies that would lead to a new bout of high inflation.

Another weakness of the politicised monetary standard is the inability of politicians to pre-commit themselves. Even if the current ruling group were fully aware of the dangers of price instability, and totally committed to stable prices, it generally lacks the power to pre-commit future governments to maintain price stability. The most a government can try to do is erect barriers against future governments that might want to tamper with the standard—it might try to make the central bank autonomous, for example—but in the last resort it cannot prevent them from interfering with the central bank if they are sufficiently determined to do so. However much the private sector may believe in the 'good intentions' of the present British Government, the latter can make no guarantee binding its successors, or even its own future actions. Private individuals and firms must therefore go about their business—make investment decisions which commit themselves for the future, for example—taking the risk that a future government might tamper with the standard and thereby inflict unanticipated losses on them. Private individuals and firms will devote resources in all sorts of ways to protect themselves against this danger—resources that would be saved if the value of the currency could be secured. They may transfer their money abroad, or they may

bury gold in the garden, but the key point is that their decisions are distorted merely by the *possibility* of future politically-induced changes in the value of the standard. The only way this can be avoided is to remove the power to meddle with the standard, and that in turn requires that the standard be effectively de-politicised.

### *An Erratic and Unpredictable Inflation Rate*

Apart from the effects of real or prospective political interference, the 'monetary authority' faces incentives that have an important influence on the price-level policies it adopts. An important analysis of this issue has been provided by Barro and Gordon (1983). They argue that the central bank would generate that rate of inflation which equalised its marginal benefit with the marginal cost of inflation. They conclude that the outcome would be a positive and variable rate of inflation. They claim that the rate of inflation would be positive because at zero inflation the costs of inflating are likely to be quite low, while the benefits—like generating revenue from money creation—could be quite substantial. The central bank would therefore have an incentive to inflate. They also suggest that the marginal costs and benefits would vary with the cyclical state of the economy, the natural rate of unemployment, the size of current government spending, and the size of the outstanding stock of fixed-interest public debt. The greater the size of the outstanding fixed-interest debt, the more the government has to gain by an unanticipated inflation, and when the economy is in recession, the more effective an expansionary monetary policy might be in reducing unemployment, and so on.<sup>1</sup>

Barro and Gordon's analysis thus indicates that the rate of inflation would follow a cycle, with occasional bouts of monetary expansion eroding the central bank's 'reputation' for 'good behaviour' and producing an eventual crisis followed by a more restrictive monetary policy. This would bring down the rate of inflation and the central bank's reputation would gradually recover. Public 'trust' in it would start to grow and people would be more ready to pre-commit themselves again. In doing so, of course, they would start accumulating fixed-interest debts, and the incentive for the bank to inflate would rise once more. At

<sup>1</sup> Robert J. Barro and David B. Gordon (1983), 'Rules, Discretion and Reputation in a Model of Monetary Policy', *Journal of Monetary Economics*, Vol. 12, pp. 101-21.

# *No Necessary Reason for Government to Monopolise Currency Issue*

by  
**NIGEL LAWSON**

It is an interesting aside, incidentally, that—although all governments *are* monopoly issuers of currency in practice—there is no necessary reason why they should be. In a paper published by the Institute of Economic Affairs some 10 years ago, Frederick Hayek proposed, to quote his own title, the *Denationalisation of Money*.

But this is not a form of privatisation that Britain, or for that matter any other country, has so far espoused, and this Government has therefore accepted its responsibilities for the value as well as for the creation of the currency. We have accepted that the State has a clear responsibility to maintain the internal value of the currency—that is to say, to avoid domestic inflation—and, within that context, to maintain the external value of the currency—the exchange rate.9

(Extract from Nigel Lawson, *The State of the Market* (with a Commentary by Professor Alan Budd), Occasional Paper 80, IEA, 1988, pp. 13-14.)

some point the bank would give in to the temptation to inflate, and the cycle would repeat itself.

The lesson to be drawn is that a fiat monetary authority will not keep prices stable. Rather it will generate prices that not only rise, but rise in an unpredictable manner which seriously undermines the price system's role of co-ordinating economic activity. This has also been the lesson of monetary history.

## **The Costs of the Fiat Standard**

### *Resource Costs*

Economic theory predicts—and experience apparently confirms—that a central bank will manipulate the monetary standard in response to the pressures it faces. Most of the costs this imposes on the functioning of the market economy are impossible to calculate, but a very rough-and-ready gauge of some of them can be formed. One such crude measure is the value of the resources

used by the public in trying to protect themselves against future changes in the value of money. This would include the resources used in the operation of the 'new' financial markets that provide people with assets that can give them some protection against inflation.<sup>1</sup> It would also include much of the gold and other commodities that people hold as a hedge against inflation. To this must be added the costs that the public incurs in passing up potentially profitable lending opportunities out of a fear of future inflation.

### *The Costs of Exchange Market Intervention*

Another potentially quantifiable cost of inconvertible currencies is the losses from inefficient intervention in the foreign exchange markets. In two important studies, Dean Taylor (1982 a,b) estimates that the main central banks between them lost about \$12 billion from intervening in foreign exchange markets during the 1970s. (It would be interesting to compare the figures for the 1980s, but no study has yet been undertaken.) These losses arose because central banks have often tried to resist exchange rate movements when 'equilibrium' rates have changed, or have tried to change exchange rates when their 'equilibrium' values have not changed. As Taylor explains:

'In an attempt to smooth foreign exchange markets, the central banks generally have resisted exchange rate changes. In some cases this policy of "leaning against the wind" has led to pegging an existing exchange rate when there is a change in its equilibrium value. After losing substantial international reserves, these central banks have given up their support operations, and the exchange rate has dropped precipitously. They then depressed the price of their currency further by buying back reserves.'<sup>2</sup>

This behaviour presumably arises because central bank officials are not betting with their own money while private individuals and firms are, or are at least more accountable for what they lose. Another contributory factor is that governments' policy objectives are often incompatible and the markets perceive this inconsistency. Whatever the reason, by trying to

<sup>1</sup> Milton Friedman (1986), 'The Resource Cost of an Irredeemable Paper Currency', *Journal of Political Economy*, Vol. 94, pp. 642-47, contains a good discussion of these 'resource costs' of an inconvertible currency.

<sup>2</sup> Dean Taylor (1982b), 'The Mismanaged Float: Official Intervention by the Industrialized Countries', in Michael B. Connolly (ed.), *The International Monetary System: Choices for the Future*, New York: Praeger, p. 49.

defy 'market fundamentals' central banks have frequently lost money to private speculators who correctly perceived that the central banks' intervention policies were unsustainable. Taylor points out that these losses have been heavily disguised and so they have not received the unfavourable kind of public attention that other loss-making nationalised industries have received.<sup>1</sup> In addition, the losses made by central banks in this way have sometimes been greater than the losses made by other nationalised industries. To give an example, Taylor points out that

'British Steel's average annual loss for the 6 years ending in March 1978 was about £120 million, while Britain's foreign exchange losses averaged over £200 million per year. British Steel received considerable publicity and public attention for its loss, while the latter received almost none'.<sup>2</sup>

He suggests that the actual 'deadweight loss'—the net loss to the economy when the transfer to successful speculators is taken into account—would be about half the losses suffered by the central bank. This is still a far from inconsiderable amount. It is also interesting to note that by betting against the central bank and winning, speculators prevent exchange rates from getting as far out of line as they otherwise would, and reduce both the losses inflicted on the central bank and the 'deadweight loss'—the net loss to the economy—from the intervention.<sup>3,4</sup>

It is ironic that supporters of inconvertible currencies have claimed for a long time that a major drawback of a convertible currency is the cost of the reserves needed to maintain convertibility, and yet they have tended to ignore resource costs such as these which are implied when the anchor of convertibility is removed. Apart from tending to exaggerate the reserves which would be needed to maintain convertibility, the sup-

<sup>1</sup> Taylor's work illustrates the point that it is extremely difficult to measure the losses (or profits) made by central banks. This gives them something of a protective smokescreen.

<sup>2</sup> Taylor (1982a), 'Official Intervention in the Foreign Exchange Market, or, Bet Against the Central Bank', *Journal of Political Economy*, Vol. 90, p. 366.

<sup>3</sup> This suggests that the much-maligned 'speculators' not only enrich themselves by betting against government policies, but they also reduce the government's own losses and the welfare costs of those policies.

<sup>4</sup> Taylor's work has been criticised by John F. Wilson ('Comment' in Michael B. Connolly (ed.), *op. cit.*, pp. 297-306), and by P. D. Spencer ('Official Intervention in the Foreign Exchange Market', *Journal of Political Economy*, Vol. 93, No. 5, 1985, pp. 1,019-24). They claim that Taylor's results are sensitive to his assumptions; this reinforces the need to 'clean up' central banks' accounting, so that their profits and losses can be clearly identified.

porters of fiat currencies also tend to overlook the fact that those resources serve a very useful purpose—they give a guarantee of the issuer's 'good behaviour'—which is not generally fulfilled when the currency is inconvertible. The reserves kept to maintain convertibility are therefore far from being a 'dead loss' that can simply be dispensed with by abandoning convertibility and relying on government fiat instead.

## Monetary Policy as a Means of Taxation

### *The 'Optimal Tax' Argument for Inflation*

It is sometimes said that inflation can be defended as an optimal tax. The argument is that the government needs to raise revenue, and it does not (usually) have the option of 'non-distorting' taxes. Alternative taxes, in other words, have the effect of distorting economic activity—income taxes discourage work, for example—and it is *possible* that the undesirable side-effects of an inflation tax are less than the undesirable side-effects of these alternative taxes. If this is so, the government should use the inflation tax to raise revenue. What should we make of this argument?

### *The Historical Record*

Even if it is accepted that, in *principle*, an inflation tax is desirable, it would be extremely difficult—if not impossible—to give a single historical instance where this was plausibly the case. Although the detailed effects of inflation are not fully understood, the evidence indicates overwhelmingly that they are very damaging indeed. While inflation raises revenue for the government, and sometimes gives a temporary stimulus to the economy, the stimulus soon wears off, and ever greater doses of inflation are needed to maintain the inflationary boom. As this happens, the process of economic co-ordination increasingly malfunctions, and there are large and arbitrary redistributions from one group to another. In the limit, as Keynes put it, 'the process of wealth-getting degenerates into a gamble and a lottery'.<sup>1</sup> Experience shows that inflation is at best always a dangerous tax to use, and at worst a catastrophic one. The most cursory knowledge of monetary history should convince anyone that the inflation tax was not to be played with, even if there was a theoretical case in its favour.

<sup>1</sup> J. M. Keynes (1919), *Essays in Persuasion*, reprinted by W. W. Norton and Company, London and New York, 1963, p. 78.

### *Theoretical Arguments Against the Inflation Tax*

Even in *principle*, however, the case for an inflation tax is extremely dubious. A 'good tax' should satisfy certain conditions, which inflation patently does not. Among the 'canons of good taxation' is that the tax burden should be relatively easy to assess. The burden of inflation is notoriously difficult to assess, and the majority of those who pay it are probably not even aware that they are being taxed. Instead, they will tend to view inflation as akin to a natural calamity over which no-one seems to have any control. This is convenient for governments, because they can raise revenue without bearing the unpopularity created by alternative taxes whose burdens are more obvious, and more obviously attributable to government actions. These 'public choice' considerations alone provide strong grounds for depriving the government of its powers to levy the inflation tax.

A second principle of good taxation is that the basis on which the tax is levied should conform to reasonable standards of equity. At the very minimum, this requires that a tax must not be unduly arbitrary. Inflation actually levies a tax on those who failed to anticipate it—or who were in no position to protect themselves against it—and redistributes it to those who were smart enough—or lucky enough—to anticipate it and take appropriate action. There is no obvious correlation between those who gain (or lose) from inflation and any generally acceptable basis on which to levy a tax. It harms the poor at least as much as the rich, and often inflicts the most damage on those least able to look after themselves. It is an arbitrary and capricious form of taxation which goes against all our notions of fairness.

In addition to these considerations, Kent Kimbrough has shown<sup>1</sup> that there are no efficiency grounds for an inflation tax because inflation is a tax on an intermediate good—the medium of exchange. The purpose of using money is to reduce the costs of carrying out transactions, and inflation raises these transactions costs whilst other taxes do not. The use of the inflation tax is never desirable because it is tantamount to throwing away the resources consumed by the higher transactions costs caused by the inflation, and it is never desirable to throw valuable resources away. It follows that inflation is not

<sup>1</sup> Kent Kimbrough (1986), 'The Optimum Quantity of Money Rule in the Theory of Public Finance', *Journal of Monetary Economics*, Vol. 18, pp. 277-84.

desirable as a tax *even when the alternative is to levy other taxes that distort economic activity*. There is no 'efficiency case' for an inflation tax, even in theory.

### **Conclusions**

There are two main conclusions to be drawn from the discussion in this section:

- The well-being of the economy requires a properly functioning price system. This in turn requires a stable monetary standard.
- It is impossible to achieve this stability with the present highly politicised, inconvertible standard. This suggests that the convertibility of the currency should be restored and that the monetary standard should be depoliticised.

## V. MONETARY REFORM

Granted the damage that government intervention has done to the monetary system, the question is what to do about it. It is not enough to replace particular *individuals* or the particular *policies* they may have adopted. We must change the *institutional environment* within which they operate. This requires a change in the *monetary régime*.

### The Argument for a 'Monetary Constitution'

One suggestion is for a system of constitutional rules to discipline the government's activities in the monetary system. Such a set of rules was proposed by Professors H. G. Brennan and J. M. Buchanan in their 1981 Hobart Paper, *Monopoly in Money and Inflation: The Case for a Constitution to Discipline Government*, and by others. Brennan and Buchanan conclude:

'Experience should have taught us that direct economic advice to governments can be of relatively little lasting value. Men who make decisions in governmental roles . . . tend to be motivated by their own objectives instead of any "truths" propounded by their economists. Once this simple point is recognised, our emphasis on *constitutional-institutional* change logically follows . . . more and more economists are coming to realise that unrestrained monetary monopoly is the *institutional* explanation of the great inflation of the 1970s. *Institutional* explanation suggests *institutional* reform.'<sup>1</sup>

There is much truth in this. Yet the issue to be settled is what *kind* of institutional reform is called for.

Brennan and Buchanan suggest the imposition of a system of rules on the governmental monetary authority, but this suggestion raises several problems:

- Such rules could easily destabilise the banking system even further. A classic example of a potentially destabilising rule would be the abolition of the central bank's lender-of-last-resort function whilst retaining the restrictions on the commercial banks' freedom to issue notes. Since these restrictions give rise to the apparent 'need' for a governmental

<sup>1</sup> Hobart Paper 88, IEA, 1981, p. 65.

lender of last resort, such a rule could leave the banking system exposed to a crisis it could not handle. It would therefore be premature to abolish the lender of last resort while the 'need' for it still remains. The lesson to be drawn from this is *not* that a governmental last-resort function is a good thing, but that 'partial' deregulation could be dangerous if it leaves intact important restrictions on private activity in the monetary system.

- The rules would have to be sufficiently 'entrenched' to withstand those who had a vested interest in subverting them. This is very difficult to do, especially in the UK where Parliament is sovereign, i.e., has virtually unlimited powers. A government can pass whatever legislation it likes through Parliament to impose rules on the central bank, but, as discussed earlier (above, pp. 50-52), it cannot prevent its successors from repealing them. In other words, no government can impose a rule prohibiting future governments from intervening in the monetary system.

Whilst Parliamentary sovereignty to some extent affects all proposed reforms, including free banking, it is considerably more of a difficulty with proposals that leave intact a continued apparatus of state interference in the monetary system, even a reduced one. The problem is that it leaves the state with a foothold in the monetary system, and concedes the *principle* of intervention. A future government that desired to intervene would then need only to *extend* an apparatus that already existed. It could plausibly argue that it still respected the 'spirit' of the monetary constitution, and it could no doubt provide persuasive reasons for the 'necessity' of altering some of the 'details' of the constitution. Opponents of the government could argue against its proposals, but their case would be much stronger if they were defending a system of free banking which conceded no ground for governmental interference *even in principle*. The government would then have to overturn a major constitutional principle, and it would have to establish an apparatus of intervention from scratch—considerably more difficult tasks. A system of free banking is therefore probably easier to defend than a monetary constitution in which a special role for the government had already been conceded.

## Alternative Proposals

### *Membership of the EMS*

Other proposals that have been put forward are for the UK to join the European Monetary System (EMS) or to establish a European central bank. Neither of these suggestions really addresses the source of our monetary difficulties. Since the West German Bundesbank effectively determines EMS policies, the recommendation that the UK join the EMS is tantamount to a proposal that the UK should surrender her monetary independence to the Bundesbank. If the past records of the Bank of England and the Bundesbank are compared, this reform would definitely be an improvement, but it still leaves the question of how future Bundesbank policy is to be determined. One system of central banking would be swapped for another that had a better track record. What British observers tend to overlook, however, is that the Bundesbank's record only looks good in comparison with the dismal records of most other central banks. Viewed objectively, the Bundesbank's record is a poor one. An average rate of inflation of about 3 per cent a year for the last couple of decades is better than the abysmal British record, but it is still 3 per cent too high. We ought to be able to do better than that. The EMS option should therefore be rejected.

### *A European Central Bank*

The other recommendation was to establish a European central bank. This would be considerably worse than joining the EMS. If we joined the EMS, at the least we might expect inflation to fall a little. With a European central bank, inflation would almost certainly rise—and that for two reasons. At the moment the separate European currencies tend to compete to some extent against each other. At the margin, currency-holders can choose which currency to hold, and they tend to prefer those currencies whose values are more stable. They therefore tend to switch out of the unstable currencies into the more stable ones. The effect of this switching is to 'reward' the more prudent central banks at the expense of those which pursue more expansionary policies. By penalising inflation, currency competition helps to reduce it. The establishment of a European central bank with a European currency would eliminate this form of competition, and therefore push inflation upwards.

Also, inflation might rise with a European central bank if its

control were handed over to the European Commission. Thanks to the escalating cost of the Common Agricultural Policy (CAP), the Community is virtually bankrupt. The danger is therefore that the monetary powers of the European central bank would be used to finance the CAP to avert the Community's insolvency. If this were to happen, inflation would rise again—possibly very considerably. The European central bank option should therefore also be rejected.

### **An Agenda for Reform**

The only remaining option is free banking. How could this be established? Since free banking involves unrestricted competition, it would be necessary to deregulate the banking system; since it would require a depoliticised commodity-based standard, it would be necessary to re-define the standard; and since there is no central bank under free banking, it would be necessary to abolish the Bank of England.

#### *Deregulation*

The regulatory powers of the Bank of England and other bodies would be abolished outright to leave the monetary system completely decontrolled. In particular, the powers to set interest-rate ceilings, reserve ratios, 'capital adequacy' requirements and credit limits would all be abolished. Contract laws would be simplified, as would the complex and cumbersome compliance requirements of financial legislation (e.g., the new Financial Services Act 1986 and the plethora of 'rule-books' it has spawned!). All restrictions on the types of financial contract individuals and firms could undertake would be removed. The courts would enforce contracts in any currency, whether it was a currency issued by private individuals or banks or foreign central banks. The only requirement for a legally enforceable contract would be that the contracting parties had freely agreed to it. 'Paternalistic' financial legislation would also be abolished, and all agents would be assumed to be responsible for their own affairs.

#### *The Standard*

It is essential that the monetary standard be put beyond political control, and in a way that would keep prices stable. Perhaps the

<sup>1</sup> Arthur Seldon (ed.), *Financial Regulation or Over-Regulation?*, IEA Readings 27, London: IEA, 1988.

best way to do this would be to *re-define* the current monetary standard. From a certain date onwards, the law would simply re-define the 'pound sterling' as equivalent to a certain weight of a particular commodity or basket of commodities. It is important to understand that this would *not* mean that a contract which specified a payment of so many pounds would require that physical commodities be handed over. All that would be handed over would be a mutually agreed means of payment, like a cheque or a banknote, of the same value as the debt to be paid. As far as the parties to the contract were concerned, the re-definition of the pound would make no tangible difference—a financial instrument (for example, a cheque) would be handed over to the value of the so many pounds. What *would* alter is the way in which the price level is determined. The value of the 'pound' would be tied to the value of the commodities defining the new pound, in the same way that the value of the old gold-standard-pound was tied to the value of gold.

The precise commodity-definition of the new pound would be chosen to ensure that prices were kept as stable as possible. This could be done by choosing as a commodity-bundle a typical consumer's weekly 'shopping basket'. The prices of individual goods would still be free to change, but they would change in a way that kept the value of the commodities in the 'shopping basket' constant. Consumers would no longer experience inflation. The amounts of the commodities making up the new 'pound' would also be chosen in such a way that the value of the pound would not alter as the new definition took effect. This would prevent any disruptive changes in prices. Introducing the new definition would therefore cause no disruption or inconvenience to private individuals. Most of them would not even be aware of the change.

### *Freeze the Currency Supply or Return to the Gold Standard?*

The main alternatives to re-defining the pound in this way are simply to freeze the supply of currency or to go back to the gold standard. Both of these devices would go some way towards depoliticising the monetary standard, but neither would achieve genuine price stability. Freezing the currency supply would not deliver price stability because the future demand for currency would tend to fluctuate, possibly in a very unpredictable manner. As financial innovation and deregulation continue, the

public tend to economise on their real currency holdings. With a fixed (nominal) supply of currency, the falling demand for real (i.e., price-deflated) currency would be reflected in rising prices. If ever we were to approach the ideal of a 'cashless society', prices would rise very high indeed. We simply cannot take the risk of leaving prices hostage to an unpredictable future demand for currency.

A similar problem arises with the gold standard. The stability of prices under the gold standard reflected the stability of the relative price of gold. In recent years this price has been extremely volatile, and there is no reason to suppose it would become any less volatile if we were to adopt a new gold standard. In addition to this, the adoption of a gold standard might also significantly affect the demand to hold gold, and this too would affect its relative price, and hence the price level that would emerge under the gold standard. The demand for gold might also be too heavily influenced by 'speculative' forces to be predictable to any reasonable degree. Prices under the gold standard could therefore be very volatile and unpredictable—problems that could be avoided simply by re-defining the monetary standard in the way suggested earlier.

An interesting question is what would be the implications for UK monetary stability if we adopted the proposed new standard and the rest of the world continued to use inconvertible fiat standards. The most significant consequence of the new standard would be stable domestic prices. Inflation would be eliminated. In addition to this, there would no longer be any major domestic source of monetary instability. There would no longer be fluctuations in interest rates and exchange rates due to shifts in UK monetary policy or regulations. An important source of interest and exchange rate instability would therefore be removed. This is *not* to say that interest and exchange rates would be *constant* under free banking. Interest rates would still adjust to reflect factors like changes in borrowing and lending behaviour, changes in the productivity of capital, and changes in foreign monetary policies. The exchange rate would also adjust in response to changes in trading conditions and in foreign monetary policies. As foreign central banks continued to inflate, the value of their currencies would depreciate against the new commodity-pound. To the extent that there are no major changes or anticipated changes in foreign monetary policies, the slowly changing exchange rate should cause no great inconvenience to UK importers or exporters.

# *Denationalisation of Money: The Practical Proposal*

by

**F. A. HAYEK**

¶The concrete proposal for the near future, and the occasion for the examination of a much more far-reaching scheme, is that

*the countries of the Common Market, preferably with the neutral countries of Europe (and possibly later the countries of North America) mutually bind themselves by formal treaty not to place any obstacles in the way of the free dealing throughout their territories in one another's currencies (including gold coin) or of a similar free exercise of the banking business by any institution legally established in any of their territories.*

This would mean in the first instance the abolition of any kind of exchange control or regulation of the movement of money between these countries, as well as the full freedom to use any of the currencies for contracts and accounting. Further, it would mean the opportunity for any bank located in these countries to open branches in any other on the same terms as established banks.

### *Free trade in money*

The purpose of this scheme 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. As soon as the public became familiar with the new possibilities, any deviations from the straight path of providing an honest money would at once lead to the rapid displacement of the offending currency by others. And the individual countries, being deprived of the various dodges by which they are now able temporarily to conceal the effects of

Roughly speaking, the change in the exchange rate would simply reflect the foreign rate of inflation, and the UK prices of imports and exports would remain approximately the same.<sup>1</sup> To the extent that changes in interest or exchange rates result from shifts

<sup>1</sup> Let  $P$  = domestic price of a traded good,  $P^*$  = foreign price of the same good, and  $e$  = exchange rate (defined as the price in £ of a unit of a foreign currency). Then  $P = e P^*$ . As  $P^*$  rises in line with the foreign inflation,  $e$  falls correspondingly, and  $P$  remains about the same.

their actions by 'protecting' their currency, would be constrained to keep the value of their currencies tolerably stable.

*Proposal more practicable than utopian European currency*

This seems to me both preferable and more practicable than the utopian scheme of introducing a new European currency, which would ultimately only have the effect of more deeply entrenching the source and root of all monetary evil, the government monopoly of the issue and control of money. It would also seem that, if the countries were not prepared to adopt the more limited proposal advanced here, they would be even less willing to accept a common European currency. The idea of depriving government altogether of its age-old prerogative of monopolising money is still too unfamiliar and even alarming to most people to have any chance of being adopted in the near future. But people might learn to see the advantages if, at first at least, the currencies of the governments were allowed to compete for the favour of the public.

Though I strongly sympathise with the desire to complete the economic unification of Western Europe by completely freeing the flow of money between them, I have grave doubts about the desirability of doing so by creating a new European currency managed by any sort of supra-national authority. Quite apart from the extreme unlikelihood that the member countries would agree on the policy to be pursued in practice by a common monetary authority (and the practical inevitability of some countries getting a worse currency than they have now), it seems highly unlikely, even in the most favourable circumstances, that it would be administered better than the present national currencies. Moreover, in many respects a single international currency is not better but worse than a national currency if it is not better run. It would leave a country with a financially more sophisticated public not even the chance of escaping from the consequences of the crude prejudices governing the decisions of the others. The advantage of an international authority should be mainly to protect a member state from the harmful measures of others, not to force it to join in their follies. ♪

(Extract from F. A. Hayek, *Denationalisation of Money—the Argument Refined*, Hobart Paper 70, IEA, 2nd edn., 1978, pp. 19-20.)

in foreign monetary policy, however, domestic firms who trade in foreign markets might be seriously inconvenienced, but there is not much that can be done about that in such an interdependent world. The best we can do is to eliminate our own domestic sources of monetary instability, and leave it to other countries to put their own houses in order. That is exactly what the proposed system of free banking would do.

### *Abolishing the Bank of England*

The third and final element of the reform programme would be to abolish the Bank of England. Both of the Bank's current functions—to 'protect' the banking system and to 'defend' the value of the currency—would be performed in other ways in a free banking system. The Bank would therefore have no useful role to play. Those parts of the Bank that dealt with government finances (for example, the management of the Treasury Bill auction and the National Debt) could be transferred to the Treasury. Its notes could be called in and its deposits paid off, and miscellaneous functions like the collection of data could either be privatised or scrapped entirely. What remained of the Bank as an institution could then be abolished outright.

### **Achieving Monetary Stability**

The lessons of history are very clear. We will never attain monetary stability while we maintain a heavily regulated banking system and entrust its safety and the value of the currency to a central bank. The record of government money is a record of disaster. We must entrust the safety of the banking system instead to those who have a self-interest in protecting it, and we must re-establish a commodity basis for the currency to ensure that prices remain stable.

An end to monetary instability is within reach, but it can be attained only in the free market. There is no alternative path to monetary stability.

# IEA PUBLICATIONS

## Subscription Service



An annual subscription is the most convenient way to obtain our publications. Every title we produce in all our regular series will be sent to you immediately on publication and without further charge, representing a substantial saving.

### Individual subscription rates\*

- Britain:** £25.00 p.a. including postage.  
 £23.00 p.a. if paid by Banker's Order.  
 £15.00 p.a. to teachers and students who pay *personally*.
- Europe:** £25.00 p.a. including postage.
- South America:** £35.00 p.a. or equivalent.
- Other Countries:** Rates on application. In most countries subscriptions are handled by local agents. Addresses are available from the IEA.

\* These rates are *not* available to companies or to institutions.

To: The Treasurer, Institute of Economic Affairs,  
 2 Lord North Street, Westminster,  
 London SW1P 3LB

I should like to subscribe from .....

I enclose a cheque/postal order for:

- £25.00  
 £15.00 I am a teacher/student at .....

Please send a Banker's Order form.

Please send an invoice.

Please charge my credit card:

Please tick        

Card No:

In addition I would like to purchase the following previously published titles:

.....  
 .....

Name .....

Address .....

.....

Post Code .....

Signed ..... Date .....

BLOCK  
 LETTERS  
 PLEASE

NEW IEA DOCUMENTARY VIDEO FILM

# JOHN MAYNARD KEYNES

Life · Ideas · Legacy

WRITTEN AND PRESENTED  
BY PROFESSOR MARK BLAUG

*Programme contents*

**Part I: YOUTH, PEACE AND MARRIAGE**

**Part II: UNEMPLOYMENT AND THE GENERAL THEORY**

**Part III: THE ECONOMIC CONSEQUENCES OF MR. KEYNES**

John Maynard Keynes (1883-1946) is widely regarded as the most influential economist of the Twentieth Century and certainly the most controversial. This IEA documentary video looks at his intellectual roots in Cambridge, at his colourful personal life and at his long public career as an adviser to governments. Among his principal writings, the film examines the origins and central message of his 'revolutionary' book *The General Theory of Employment, Interest and Money* (1936). The programme concludes with an assessment of Keynes' place in the development of economic thought and an evaluation of the legacy of 'Keynesian Economics' made with candid vigour by a panel of distinguished economists including five Nobel Laureates.

Scholars appearing include:

- Robert Skidelsky**, University of Warwick and Keynes' biographer  
**Donald Moggridge**, University of Toronto and editor of *The Collected Writings of John Maynard Keynes* on behalf of the Royal Economic Society  
**Milo Keynes**, nephew of J. M. Keynes – editor, *Essays on John Maynard Keynes*  
**George Rylands CH**, Fellow of King's College, Cambridge  
**James Buchanan**, George Mason University  
**Milton Friedman**, Hoover Institution, Stanford University  
**Frank Hahn**, University of Cambridge  
**F. A. Hayek CH**, formerly of the London School of Economics and the Universities of Chicago and Freiburg  
**Paul Samuelson**, Massachusetts Institute of Technology  
**James Tobin**, Yale University  
**Sir Alan Walters**, Johns Hopkins University



Produced by Diverse Production Limited, London for  
**THE INSTITUTE OF ECONOMIC AFFAIRS**

**Running time: 60 minutes**

© IEA MCMLXXXVIII  
World Rights Reserved

**Format: Video**

**PRICE: £75 + VAT**  
(overseas prices on application)

**Available from the IEA's exclusive world wide distributor:**

**Guild Sound and Vision Ltd**

6 Royce Road Peterborough PE1 5YB England  
Tel: (0733) 315315 Telex: 32683 GSV G



## QUESTIONS FOR DISCUSSION

1. What are the functions of money? Does money have peculiar characteristics which make it different from other commodities?
2. Describe how a free banking system where any financial institution could issue its own currency would operate.
3. Are central banks a crucial part of a stable monetary system or do they in practice act to destabilise the economy and promote inflation?
4. It is frequently argued that profit-motivated issuers of notes and currency would have a strong incentive to over-issue and debase the value of their money. Critically appraise this claim.
5. Outline the circumstances in which the risks of bank failures and bad debts in the banking system are increased by a central bank acting as lender of last resort.
6. In a free banking system what mechanisms and institutions would arise to ensure that the risks of bank runs and failures were minimised?
7. Discuss whether the following criticism of private money is valid: '... suppose I offer one paper rouble in payment of a bus fare, and the conductor refuses to accept it; what happens? Is the bus stopped while the conductor and I seek a ruling which nobody can give? And imagine the controversies in the bus over the latest exchange rate between one currency and any other. ... [the] scheme would produce chaos and slow down the whole business of production and exchange in a welter of disputation. That is why history has forced governments to legislate on legal tender.'
8. 'Only by restraining the discretionary powers of the

monetary authorities through enforceable constitutional rules will inflation be controlled.' Do you agree? What are the advantages of free banking relative to constitutionally constrained monopoly?

9. 'It is politically impossible for a monetary authority subject or exposed to severe sectional pressures to avoid increasing the quantity of money to increase employment, thus creating inflation. The gold standard, fixed exchange rates and other restraints in the way of monetary expansion have been found inadequate.' Discuss.
10. Assess the case for and against the 'inflation tax'.

## READINGS FOR FURTHER STUDY

- Barro, Robert J., and David B. Gordon (1983): 'Rules, Discretion and Reputation in a Model of Monetary Policy', *Journal of Monetary Economics*, Vol. 12, pp. 101-21.
- Brennan, H. Geoffrey, and James M. Buchanan (1981): *Monopoly in Money and Inflation: The Case for a Constitution to Discipline Government*, Hobart Paper 88, London: Institute of Economic Affairs.
- Dowd, Kevin (1989): *The State and the Monetary System*, Oxford: Philip Allan, forthcoming.
- Friedman, Milton (1960): *A Program for Monetary Stability*, New York: Fordham University Press, reprinted in 1983.
- (1986): 'The Resource Cost of an Irredeemable Paper Currency', *Journal of Political Economy*, Vol. 94, pp. 642-47.
- Giffen, Sir Robert (1893): 'Fancy Monetary Standards', *Economic Journal*, Vol. 2, pp. 239-55.
- Goodhart, Charles (1985): *The Evolution of Central Banks*, London: Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics.
- Hayek, Friedrich A. (1948): 'The Use of Knowledge in Society', in *Individualism and Economic Order*, Chicago: University of Chicago Press.
- (1978): *Denationalisation of Money: The Argument Refined*, Hobart Paper 'Special' (No. 70), 2nd edition, London: Institute of Economic Affairs.
- Jevons, William S. (1875): *Money and the Mechanism of Exchange*, 20th edition, London: Kegan Paul, 1920.
- Kaufman, George (1987): 'The Truth about Bank Runs', *Staff*

- Memorandum SM-87-3*, Chicago: Federal Reserve Bank of Chicago.
- Keynes, J. M. (1919): *Essays in Persuasion*, reprinted by W. W. Norton and Company, New York and London, 1983.
- (1936): *The General Theory of Employment, Interest and Money*, London: Macmillan.
- Kimbrough, Kent (1986): 'The Optimum Quantity of Money Rule in the Theory of Public Finance', *Journal of Monetary Economics*, Vol. 18, pp. 277-84.
- Leijonhufvud, Axel (1981): *Information and Coordination*, New York and Oxford: Oxford University Press.
- Meulen, Henry (1934): *Free Banking: An Outline of a Policy of Individualism*, London: Macmillan.
- Selgin, George A. (1988): 'Accommodating Changes in the Relative Demand for Currency: Free Banking vs. Central Banking', *Cato Journal*, Vol. 7, pp. 621-41.
- Smith, Vera C. (1936): *The Rationale of Central Banking*, London: P. S. King & Son.
- Taylor, Dean (1982a): 'Official Intervention in the Foreign Exchange Market, or, Bet Against the Central Bank', *Journal of Political Economy*, Vol. 90, pp. 356-68.
- (1982b): 'The Mismanaged Float: Official Intervention by the Industrialized Countries', in Michael B. Connolly (ed.), *The International Monetary System: Choices for the Future*, New York: Praeger.
- Timberlake, Richard H. (1984): 'The Central Banking Role of Clearinghouse Associations', *Journal of Money, Credit, and Banking*, Vol. 16, pp. 1-15.
- Trivoli, George (1979): *The Suffolk Bank: A Study of a Free-Enterprise Clearing System*, London: Adam Smith Institute.

White, Lawrence H. (1984a): 'Competitive Payments Systems and the Unit of Account', *American Economic Review*, Vol. 74, pp. 699-712.

— (1984b): *Free Banking in Britain: Theory, Experience, and Debate, 1800-1845*, Cambridge: Cambridge University Press.

— (1987): 'Accounting for Non-Interest-Bearing Currency: A Critique of the Legal Restrictions Theory of Money', *Journal of Money, Credit, and Banking*, Vol. 19, pp. 448-56.

## Some IEA Papers on Money

*Hobart Paper 70*

### **DENATIONALISATION OF MONEY – The Argument Refined**

*An analysis of the theory and practice of concurrent currencies*

**F. A Hayek**

1976 2nd Edition 1978 £2.00

'Professor Hayek argues that in absolute terms there is no such thing as good or bad money; that money is only overvalued or undervalued; and that it derives those tiresome qualities from governments which insist upon fixing the value. Without this interference, all money would find its own price and Gresham's law would not operate.'

John Porteous, *New Statesman*

'The book is of interest not only because of this radical proposal [that governmental monopoly in the supply of money be abolished and that the provision of money be left to an unregulated private market] and the arguments that support it, but also because it is a statement of the latest views on monetary theory and policy by a Nobel Laureate whose earlier work in monetary economics was cited as one of the reasons for receiving the prize.'

David H. Howard, International Finance Division,  
Federal Reserve Board, *Journal of Monetary Economics*

*Occasional Paper 48*

### **CHOICE IN CURRENCY**

*A Way to Stop Inflation*

**F. A. Hayek**

with Commentaries by **Ivor Pearce, Harold B. Rose,  
Douglas Jay, Sir Keith Joseph**

1976 2nd Impression 1977 £1.00

'Professor Hayek has not contented himself with negative attacks on the interventionists. After a lifetime of adherence to fixed exchange rates and the gold standard, he has come out in favour of the much more libertarian alternative of abolishing the legal tender laws and allowing people to make their own choice between currencies freely circulating on the market. This he advocates in *Choice in Currency*.

'The idea of repealing the legal tender laws so that people could carry out business in dollars, marks, ounces of gold, EEC "Europas", or anything else may seem removed from everyday experience. But before long it will be necessary to take it very seriously indeed.'

Samuel Brittan, *Financial Times*

'*Choice in Currency* should be regarded, not as a serious proposal, but as a parable revealing a deeper truth about the nature of inflation.'

*Sheffield Morning Telegraph*

## Some IEA Papers on Money (cont'd)

*Occasional Paper 61*

### **THE DISORDER IN WORLD MONEY From Bretton Woods to SDRs**

*Twelfth Wincott Memorial Lecture*

**Paul Bareau**

1981 £1.00

'Mr Bareau calls for a new gold standard and an end to floating exchange rates, maintaining that since the Bretton Woods agreement ended in 1971, "we have moved and are still moving inexorably towards a system of multiple reserve currencies".'

*Accountant*

*Occasional Paper 55*

### **CHOICE IN EUROPEAN MONETARY UNION**

*Ninth Wincott Memorial Lecture*

**Roland Vaubel**

1979 £1.00

The lecture deserves a wider audience, not just because Dr Vaubel pours a douche of cold water on all the present efforts towards European Monetary Union, but because he advances a practical way in which European Monetary Union might be reached through an idea very much on the lines of Professor Hayek's thinking: allowing a "good" new European currency to drive out the "bad" national ones.'

Hamish McRae, *Guardian*

*Occasional Paper 53*

### **DEMOCRACY AND THE VALUE OF MONEY**

*The theory of money from Locke to Keynes*

**William Rees-Mogg**

1977 £1.00

'... an admirable contribution to the debate on inflation, since it traces with clarity a fascinating history of monetary theory. And he suggests that Britain still has lessons to learn from others on how to control money.'

*Yorkshire Post*, in an Editorial

*Occasional Paper 41*

### **MONETARY CORRECTION**

*A proposal for escalator clauses to reduce the costs  
of ending inflation*

**Milton Friedman**

1974 3rd Impression 1978 £1.00

'... devoted to setting out, with typical verve and vigour, a case for indexation based on a mixture of arguments from justice and from expediency. Both categories are extremely interesting and thought provoking. ...'

A. B. Cramp, *Economic Journal*

'Its first nine pages contain a résumé of his always well-reasoned views on how conquest of inflation depends wholly on control of the money supply. ... He then plunges for the rest of his paper into proposals for indexation.'

*Economist*

# Private Money

KEVIN DOWD

---

## Summary

1. The appropriate framework for the analysis of monetary policy is one based on the self-interested behaviour of public officials and politicians, and not one that simply assumes that they will act in the public interest.
  2. Central banking and the monopoly issue of currency by government have politicised and greatly destabilised the monetary system.
  3. The change from money backed by a commodity standard to fiat money has destroyed the mechanism by which price stability was earlier secured, and opened the way for an historically unprecedented inflation.
  4. The Bank of England and other central banks have a record of losses which is comparable to those of the worst managed nationalised trading companies.
  5. In contrast, the private issue of currency disciplines banks through competitive pressures, and there is no real danger that the currency will be debased by over-issue.
  6. The historical evidence indicates that private monetary systems, as in Scotland from 1728 to 1845, have been stable and successful.
  7. A competitive banking system is less susceptible to bank runs. Option clauses, the commitment to redeem currency, and the activities of private clearinghouses all act to minimise instability.
  8. Nonetheless, the *threat* of a bank run acts as an important discipline on private banks, and hence reduces the likelihood that a bank will fail.
  9. The argument that an inflation tax created by expansionary monetary policy is an optimal form of general taxation can be dismissed.
  10. Monetary stability can be achieved through a competitive banking system. This requires complete financial deregulation, the abolition of the Bank of England, and a re-definition of the monetary standard in terms of a general commodity index.
- 

ISBN 0-255 36216-1

£4.50



THE INSTITUTE OF ECONOMIC AFFAIRS

2 Lord North Street, Westminster

London SW1P 3LB

Telephone: 01-799 3745

# Private Money

KEVIN DOWD

---

## *Summary*

1. The appropriate framework for the analysis of monetary policy is one based on the self-interested behaviour of public officials and politicians, and not one that simply assumes that they will act in the public interest.
2. Central banking and the monopoly issue of currency by government have politicised and greatly destabilised the monetary system.
3. The change from money backed by a commodity standard to fiat money has destroyed the mechanism by which price stability was earlier secured, and opened the way for an historically unprecedented inflation.
4. The Bank of England and other central banks have a record of losses which is comparable to those of the worst managed nationalised trading companies.
5. *In contrast, the private issue of currency disciplines banks through competitive pressures, and there is no real danger that the currency will be debased by over-issue.*
6. The historical evidence indicates that private monetary systems, *as in Scotland from 1728 to 1845, have been stable and successful.*
7. A competitive banking system is less susceptible to bank runs. *Option clauses, the commitment to redeem currency, and the activities of private clearinghouses all act to minimise instability.*
8. Nonetheless, the *threat* of a bank run acts as an important discipline on private banks, and hence reduces the likelihood that a bank will fail.
9. The argument that an inflation tax created by expansionary monetary policy is an optimal form of general taxation can be dismissed.
10. Monetary stability can be achieved through a competitive banking system. This requires complete financial deregulation, the abolition of the Bank of England, and a re-definition of the monetary standard in terms of a general commodity index.

---

ISBN 0-255 36216-1

£4.50



THE INSTITUTE OF ECONOMIC AFFAIRS

2 Lord North Street, Westminster

London SW1P 3LB

Telephone: 01-799 3745