

# **Money, central banking and monetary policy**

**in the global financial arena**

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This *Monograph* was originally presented as a paper at the November 2000 Mont Pélerin Society General Meeting in Santiago, Chile.

First published in **March 2001** by **The Free Market Foundation**

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ISBN: 1-874930-43-0

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# Foreword

The purpose of FMF *Monographs* is to use the analytic method of political economy to shed light on how best the promotion of free markets will improve the workings of the South African economy. In particular, authors are urged to apply the microeconomic approach of studying how individuals, firms and households behave in response to either naturally occurring environmental events or to institutional frameworks which have either evolved over time or been imposed by statute.

Few institutions are more pervasive than money. Money is a unit of account, a store of value and a medium of exchange. It has evolved over millennia as a means of reducing transaction costs and facilitating trade. As a lubricant of exchange activity it is a means to wealth as well as a store of wealth. Money has evolved from cowrie shells (in South Pacific islands) to cattle (in Africa) to cigarettes (in prisoner-of-war camps) to gold. Gold had the advantage of being portable, divisible and non-perishable and reached its apogee as a monetary mechanism in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries.

Dr Jerry Jordan, as a central banker, has a profound understanding of money and its proper role in the economy. Money, as a unit of account, facilitates understanding of relative price movements. Prices signal to producers, consumers and investors where there are shortages, surpluses or profit opportunities. In that way (p.4) resources move from low valued to more valued uses.

Money, however, is not only a product of institutional evolution, it is also a consequence of and strongly linked to government intervention. There may well be a historic case for government provision of money. When the use of money was spreading it may well be that a uniform, easily recognisable coinage might have both encouraged its spread, and an understanding of how to calculate and so compare money prices. Similarly a government stamp on a coin might well have added credibility of “brand name” identifiability and trust as to value. These advantages, however, have long since been overtaken by the disadvantages of government provided money.

Government has claimed a monopoly over money. Indeed for over two millennia, since the Lydian King Croesus first struck coins in the 6<sup>th</sup> century BC, the government’s monopoly has largely gone unchallenged. Although there is little doubt that private minters could also have provided a grade of metal content guarantee. But government soon discovered advantages accrued from monopoly other than those of popularising the use of money prices. First there was seignorage, the fee to cover the cost of minting. It was then only one step more that was required further to increase government revenues from the monopoly: namely recalling coinage, reminting and currency debasement. Then the advent of paper or fiat money completed the process. Begun as a means whereby private bankers and governments issued receipts in exchange for metal coinage – which could be redeemed on demand – bank notes soon became non-redeemable, and issuable only by government.

When there was a brief period (in historical terms) of competition between paper receipts, banks competed with each other in terms of their creditworthiness. Poorly managed banks (in the eyes of depositors and users of notes) would be avoided. The currencies of well managed banks would be preferred. In terms of Gresham’s Law – good money drove out bad.

With a government monopoly, however, the principle of Gresham’s Law is reversed. Bad money drives out good. People will hide their gold under the bed (as European peasants did) or keep their wealth in hard currency bank accounts (as many wealthy Africans do). Meantime, local fiat currency, without credibility will be spent rapidly (before it loses further value) and/or be borrowed to finance spending today (in order to allow repayment in a depreciated currency tomorrow). And lenders today, or sellers of goods today cannot avoid or refuse to accept deals consummated with such money: such is the power of monopoly, or legal tender.

If money is not credible, if its value is consistently subject to possible or actual change (up or down) then economic performance is damaged. Inflation, or deflation, obscures relative price movements. A price adjustment compresses a vast amount of information. An upward adjustment

signals that more should be produced, less consumed and that there are profit opportunities available for those who read the signals.

Inflation or deflation (when the *general* level of prices moves) introduces “noise” into this system and it becomes difficult to distinguish a *relative* change in price from a general change. Signals are misinterpreted. Goods that consumers want are not produced, or are overproduced. Investments that should be made, are not, while still other investments do occur where markets do not exist to absorb the output. Waste and inefficiency is the outcome.

Within countries, inflation harms the wealth of debtors (who are repaid in less valuable currencies) while deflation damages borrowers. And it is not a coincidence that inflation is more pervasive than deflation. The biggest borrower in any economy is government, and it controls the presses which print the money it uses to pay off its debts. Between countries, if one currency falls relative to another, investors suffer in the economy with the depreciating money. Their investment then pays dividends or interest in a currency which buys less in their country of origin. Naturally business avoids foreign investments in countries with falling exchange rates (the international consequence of domestic inflation).

Jordan does not agree that government should get out of the business of supplying money. He does, however, believe the monopoly of governments should be removed. Countries should be permitted to use whatever form of money they wish (subject to the other party in a trade being agreeable also). The money could be a commodity (like gold) or a bank note provided by a government bank or commercial bank. Only notes (or cheques) issued by reputable bankers would readily be accepted by traders. Good money would drive out bad and the scourge of inflation would be lifted.

In South Africa’s case this is crucial. Foreign investment is vital for our economy. Yet with inflation at 7% (more than three times that of Britain at 1.8%) our *relative* position is little different from the late 1980s when inflation was around 20% and our main sources of foreign investment (Europe and the USA) were experiencing inflation rates of around 6%. As explained, in economics it is *relative* prices that matter.

It is not only economic wealth which depends on good money. It is individual freedom. Privatised money would make exchange controls redundant. South Africans can currently only hold rands, or a very limited amount of alternative national currencies. South African businesspersons can only invest a limited amount beyond our borders (with a slightly higher limit if the investment is to be made in Africa). In other words the South African government monopoly of money has resulted not only in inflation but in an infringement of freedom. Movement of people, of goods, of services and of capital is restricted. (If one cannot take money out, one is restricted in one’s ability to move out). And if the money which one can take out (eg. the dividends of foreign investors) is likely to fall in value, why bring capital in?

Jordan’s proposals are not simply the musings of an experienced Central Banker. He is raising fundamental economic issues and suggesting reforms which could affect the freedom and welfare of every one of us.

The Free Market Foundation does not necessarily agree with all of Dr Jordan’s arguments. Indeed the FMF has no corporate view, and the proposals are not necessarily those of the FMF’s directors, staff or members. Nevertheless we suggest this *Monograph* be considered seriously by all interested in the future political and economic wellbeing of our country.

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## The author

Jerry L Jordan became president and chief executive officer of the Federal Reserve Bank of Cleveland in March 1992.

After receiving a Ph.D in economics at the University of California, Los Angeles, USA, he was employed at the Federal Reserve Bank of St Louis, rising to the position of senior vice-president and director of research. While at the St Louis Fed, he was on leave to serve as a consultant to the Deutsche Bundesbank in Frankfurt.

Mr Jordan served as a member of President Reagan's Council of Economic Advisors in 1981-82, during which time he was also a member of the US Gold Commission. Preceding and following his service in Washington, he was Dean of the RO Anderson School of Management at the University of New Mexico.

In 1997 Mr Jordan received an honorary doctorate of economics from Denison University. He is a member of the Mont Pélérin Society, the Academic Advisory Council of The Institute of Economic Affairs, and the Business Advisory Board of the Reason Foundation. He is also an adjunct scholar at the Cato Institute and a past president of the National Association of Business Economists.

# 1 Introduction

Economists talk about producing output – “goods and services” – from combinations of land, labour, and capital inputs – where capital is taken to mean tools, machines, buildings, and so on. We say that productivity – or productive efficiency – improves when the same amount of output can be obtained with less of at least one input.

Sometimes economists treat money as a factor of production that is separate from, and in addition to, land, labour, or capital. This is not a useful way to think about the role of money in society. It is derived from – and maybe reinforces – the idea that there must be enough money in circulation to “meet the needs of trade”. While this view originated in the nineteenth century, more recent forms are manifest today in claims that central-bank monetary policy is starving the US economy of money, which makes interest rates rise. This false diagnosis is dangerous because it produces a prescription that a central bank can make people better off by creating money at a faster rate.

A more fruitful way to think about the role of money in a market economy is one in which money liberates resources – especially those used to gather information and to conduct private transactions. This view draws attention to the importance of the quality dimension of money. That money facilitates transactions appears to be clear to everyone. Its role in enhancing market knowledge about relative prices, however, is less well understood.

Money’s effectiveness depends largely on its quality. The quality of money is high when the value of money is stable. Money prices provide households and businesses with reliable information about the relative costs of goods and services. They can make sound economic decisions, and this in turn fosters economic prosperity. The quality of money is low when the value of money is unstable. Money prices provide households and businesses with unreliable information, so they must devote some of their resources to further investigation of the relative costs of goods and services. Low-quality money wastes resources that otherwise could have added to the welfare of people.

I want to use this *Monograph* to investigate three issues concerning the quality of money. The first section talks about money in a global sense, elaborating on the significance of a stable or unstable value of money in the context of alternative exchange-rate regimes. Next, I turn to central banking, discussing more pragmatic and institutional issues in the production of high-quality money. Finally, I’ll turn to monetary policy, using the current policy situation of the United States to emphasise the critical importance of economic theory in policy making.

## 2 Money and exchange-rate regimes

No modern economy functions well without a stable standard of value.

One job of money is to provide a standard of value, or unit of account. Money defines a unit of account – a dollar, a euro, a peso, a yen, a pound, depending on the economy in which you are interested. Division of labour, specialisation, markets, and trade all rely upon a unit of account that makes disparate commodities and assets comparable in the minds of different people.

### Benefits of stable money

The economic efficiency that comes from a stable monetary unit of account is one of the pieces of a Hayekian infrastructure that a market economy requires.<sup>1</sup> That is, a market economy requires a foundation of enforceable property rights, generally-accepted accounting principles, sound financial institutions, and a stable currency.

Where public contracts are not honoured and private contracts are not enforced, markets are impaired. Where title to property is not certain, normal banking is not possible. Where financial statements are not reliable, investment opportunities are obscured. Where the purchasing power of money is not stable, resources are wasted in gathering information or in producing and consuming the wrong things.

Changes in the money prices of goods and assets convey information. If an economy's monetary unit is known to be a stable standard of value, then changes in money prices will accurately reflect changes in the relative values of goods and assets. That is, price fluctuations signal changes in the demand for and supply of goods and assets. Resource utilisation then shifts toward more valued uses and away from those less valued.

However, if changes in money prices are contaminated by the changing purchasing power of money, false signals are sent to businesses and households. Bad decisions are made, and resources are misallocated. Standards of living fail to rise at the potential rate. Nominal interest rates respond to shifting expectations about the future purchasing power of money. Changes in real interest rates are obscured. Again, resources are misallocated. Saving and investment decisions are affected, and growth is impaired.

Neither inflation nor deflation enhances economic performance. Unanticipated inflations and deflations induce redistributions of wealth – especially between debtors and creditors – but they leave the average standard of living lower. According to a former Governor of the Federal Reserve, “a place that tolerates inflation is a place where no one tells the truth”. He meant, of course, that true changes in the relative values of things cannot be observed from stated prices when the purchasing power of money is not stable.

The standard of value is stable – money is sound, the quality of money is high – when people can make decisions in the confident expectation that all observed changes in money prices are changes in *relative* prices, and all observed changes in interest rates are changes in *real* rates.

While it is now generally accepted that accelerations and decelerations of inflation do not enhance economic performance, the same is also true of administered devaluations and revaluations of the external value of a currency. If a stable domestic standard of value is optimal, then, as Mises said, “It is impossible to take seriously the arguments advanced in favour of devaluation”.<sup>2</sup> A government's decision to alter the exchange rate of a currency that had been fixed involves the breaking of promises. Losses are imposed on someone.

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<sup>1</sup> Monetary stability – a stable standard of value – is not the same thing as a stable “price level”, nor does it mean “zero inflation”. For a classic treatment of these terms, see von Mises, Ludwig (1949) *Human Action: A Treatise on Economics*, Yale University Press. For an excellent contemporary discussion, see Selgin, George A (1997) *Less than Zero: The Case for a Falling Price Level in a Growing Economy*, Hobart Papers Vol.132, Institute of Economic Affairs, London. An important conclusion is that the wealth gains emanating from a favourable productivity surprise should be reflected in rising purchasing power of money.

<sup>2</sup> Von Mises, Ludwig (1949) *Human Action: A Treatise on Economics*, p.790, Yale University Press.



## Consistency of internal and external currency values

The internal value of a currency must be stable to enjoy maximum prosperity. If that is not the case, then the external value must ultimately reflect changes in the internal value. Clearly, if the domestic purchasing power of a currency falls, the external value must eventually fall relative to stable currencies. The notion that a country can maintain a permanently fixed exchange rate while tolerating domestic inflation has been proven to be false numerous times. That reality has led to increasing advocacy of floating external exchange rates, especially for developing countries that do not have the essential fiscal discipline to resist domestic inflation.

Merely allowing the value of a currency to float does not eliminate the problems that would be encountered in a fixed exchange-rate regime confronted by financial crises.

International capital flows have proven to be a mixed blessing to many economies in the post-WWII era. But investing the savings from foreign sources for economic development is not a new phenomenon. It would not be desirable to erect obstructions to the free flow of savings, even if that were feasible. Instead, the challenge is to find ways to ensure that access to foreign capital does not so frequently appear to have been a curse.

It is important to get the labels right. In economics, as in medicine, if the diagnosis is wrong, it is unlikely that the prescription will cure the malady.

During the Asian crises of 1997, broad macroeconomic indicators of fiscal policies, monetary policies, and balance-of-payments accounts did not raise any warning flags. Instead, less obvious underlying flaws in the domestic financial markets (especially banking companies) were revealed to be pervasive. Under-capitalisation, connected lending, inadequate supervision, duration mismatches, uncovered exchange-rate exposures, and other flaws were exposed in the post-mortem of the financial duress of the so-called currency crises. Once it became clear to all that these countries were not employing “best practices” in their domestic financial markets, it also became clear that the content of previous “conditionality” had not fostered the development of the “Hayekian infrastructure” essential to a market economy.

## *Quis custodiet...?*

It is tempting to say that what is needed is an international organisation responsible for working toward global adoption of sound banking and other financial-market practices. However, the idea of empowering a “conditionality-enforcer of first and only resort” is troublesome. Some combination of carrots and sticks will always be present. Whether carrots or sticks dominate will change over time, depending on personalities and political environment. I doubt that anyone would defend a view that what is needed is a “global financial policeman/prosecutor/judge/jury and executioner” all rolled into one.

Following Mises,<sup>3</sup> we might think that a “financial night-watchman” would better serve as the role model for the professional staff of international organisations that work on behalf of creditor nation-states. At bottom, most crises fundamentally are neither monetary crises nor exchange-rate crises. Instead, what is common to most crisis episodes are government guarantees or promises that were revealed to be unreliable. The prior presence of government guarantees or implicit promises had induced behaviour – relying on the guarantees or promises – that altered incentives to the point that risk/reward relationships had become distorted. Sometimes the guarantees were in the form of financial instruments – such as tesabonos in Mexico – sometimes in exchange-rate pegs, sometimes in guaranteed loans to domestic banks, sometimes in borrowing by a government agency or nationalised industry. The failures of such arrangements in crisis countries often *became* a monetary crisis or an exchange-rate crisis. Market-corroding practices were already undermining sustainable prosperity even before a flight of foreign capital magnified the distortions.

There is little doubt that recent crises reflect the increased scrutiny or financial discipline imposed on a country’s policies and institutions by foreign investors and lenders. Participants in the

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<sup>3</sup> Von Mises, Ludwig (1958) “Liberty and Property”, lecture delivered at Princeton University, ninth meeting of the Mont Pelerin Society, reprinted by The Heritage Foundation.

global market are a class of stateless voters, roaming the world's economies seeking the best wealth-creating institutions. They represent an irresistible force.

### **...ipsos custodes?**

There is, however, a core tension between the interests of market participants and the incentives of local politicians to redistribute wealth rather than to create it. In the end, the forces of wealth creation will dominate those of wealth redistribution. The adjustment process has not been, and will not be, a smooth one, but achieving discipline will have a positive effect. As the president of Korea once said, there was a "silver lining" to the Asian currency crisis. The restructuring and reforming of banking institutions in Asia will leave them better off. It would have taken much longer to bring about these much-needed reforms without the "crisis atmosphere".

The past decade has seen considerable financial-market turbulence. At the end, though, we have already evolved toward a more stable global monetary order. Joseph Schumpeter said, "the essential point to grasp is that in dealing with capitalism, we are dealing with an evolutionary process...Capitalism, then, is by nature a form or method of economic change and not only never is, but never can be, stationary".<sup>4</sup>

Schumpeter's observation about capitalism applies equally well to all of the institutions that define the parameters of our global economy. Propelled by technological change and chance economic events, these institutions undergo a continual process of change. Those qualities that enhance economic well-being tend to survive, and those that do not, eventually disappear. People adopt institutions – laws, rules, conventions, and customs – to define and enforce property rights and, more generally, to reduce the costs of economic exchange.

The idea that tangible manufactured goods must compete not only in the local shops but also increasingly in the global "town square" is obvious to everyone. Yet the thought that institutional arrangements are also tested against others in the international arena is not so well-understood. Ideas must face competition no less than goods and services. Politicians have long known that they must compete. But their focus was on rivals in their own party or other political parties in their country. What has been changing is the competition they face from policies and institutional arrangements in other countries. Voters are not only the citizens at a local ballot box, but also financial asset managers in global capital markets.

We are witnessing the difficulty of winning and maintaining the support of these two quite different groups of voters. Domestic ballot-box voters respond well to politicians who pander to their craving for wealth-*sharing* programmes. Capital-market voters survey the world for those who pursue the best wealth-*creation* policies. Gaining the support of one is almost sure to diminish support from the other. The spread of democracy reduces the possibility of the even more perverse outcome in which governments redistribute wealth away from their own citizens toward foreigners, via various subsidies or guarantees.

Only a few of the world's currencies enjoy a reputation that will permit either the issuing government or a private borrower the privilege of selling obligations to foreigners without incurring exchange-rate risk. And global capital markets may at anytime withdraw the privilege of borrowing in one's own currency. When a currency is not an external standard of value, both fixed and floating exchange-rate systems are vulnerable

### **Fixed or floating?**

A fixed exchange-rate regime is one in which the government has promised to stand ready to supply foreign currency in exchange for the domestic currency. Obviously, the reliability of that promise is limited by the amount of such foreign currency already held ("reserves") or which can be borrowed by the government.

Under a freely-floating exchange-rate regime, the government makes no promise to provide the foreign currency necessary to cover a domestic borrower's short sales of foreign currency. That

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<sup>4</sup> Schumpeter, Joseph Alois (1950) *Capitalism, Socialism and Democracy*, Harper, New York.

means capital inflows involve “uncovered short positions” of domestic borrowers of foreign savings. The risk of exchange-rate depreciation, as well as default, would normally mean that the interest rate paid by the borrower would be higher than foreign market rates. As we often see, however, governments sometimes seek to minimise the interest differential by providing guarantees of the obligations that domestic banks and other borrowers incur to foreign investors. This creates an unavoidable moral hazard as risk shifts to general taxpayers. Furthermore, because of the subsidy to borrowers involved in such guarantees, the demand for them will always exceed the amount the government can possibly honour. The non-price rationing of the guarantees introduces political considerations into the allocation of capital flows. The inherent distortions to incentives undermine the discipline of market forces and all too frequently result in bad investment decisions.

Institutional investors in global capital markets conduct a continuous plebiscite on political and economic policies and developments in the numerous nation states of the world. Advances in communications and information technologies have been revolutionising all the financial markets: equity, debt, credit, capital, and currency. Adverse judgements by participants in such markets can quickly and dramatically change the price and availability of funds to any borrower, large or small. In the United States in the late '80s and early '90s, one heard references to “bond market vigilantes”. I'm sure most countries in the world have, in the past, and will in the future, feel they have come up against capital- and currency-market vigilantes. It is becoming apparent that government promises – whether in the form of pegged exchange rates or in the form of deposit, loan, or investment guarantees – are on the endangered-species list.

International monetary developments in recent years can be explained in the context of powerful economic forces challenging ossified domestic institutions. Among the twentieth-century institutional arrangements that are coming under increasing scrutiny are central banks and national currencies. Certainly there are national vested interests in maintaining a domestic currency. Beyond that, the idea persists that a country has something called “monetary sovereignty” and should therefore pursue an “independent monetary policy”. History demonstrates, however, that national currencies inevitably compete in the international arena.

If prosperity requires sound, high-quality money, and sound money means maintaining stable purchasing power, and maintaining stable purchasing power means that the external exchange rate will remain stable with respect to other currencies with stable purchasing power, wherein lies the benefit “monetary sovereignty” to a nation in pursuit of an “independent monetary policy”? How much can “independence” be worth if, as someone has said, “freedom is a long string at the end of which one does what one otherwise would have done at the beginning”?

The expression “independent monetary policy” is used in several ways. Sometimes it reflects resignation that national monetary policies can be dominated by an undisciplined fiscal policy. Bad experiences with massive debt monetisations and consequent inflations have fostered efforts to find ways to insulate monetary authorities from the pressures arising from deficit financing and unfunded pension liabilities of governments. As *The Economist* once put it, “a government that insists on access to the printing press cannot be trusted with it”.

In more globally-oriented discussions, however, “monetary independence” is used to refer to an institutional setting that permits a central bank to choose independently “the appropriate rate of inflation” for the national currency. It is increasingly difficult to understand what such a statement means. If it means the “politically acceptable” rate of inflation from the standpoint of domestic constituencies, then it suggests that the inherent inefficiencies of policies that debase the purchasing power of money have greater value than the potential wealth creations they preclude. There are unavoidable wealth redistributions and dead-weight wealth losses that result from debasement of the currency, whether intended or not. Traditional rationalisations for deliberate inflation – such as claims of rigid wages or implications for real exchange rates – seem increasingly quaint. Who can imagine a politician appealing for systematic inflation in today's stable money setting?

## What standards remain?

If monetary sovereignty or independence is not worth much in today's global capital markets, and if seigniorage is quite small in a non-inflationary world, then the costs and risks associated with a national central bank and a national currency become harder to justify. Whatever the views of domestic politicians, the trend in the behaviour of businesses and households around the world is unmistakable. Gresham's law has been turned on its head. What we now see – where not prohibited by effective severe punishment – is the use of “high-confidence monies” driving out the everyday use of “low-confidence monies”.<sup>5</sup> Just as the “brand name” of running shoes is more important to consumers than the location of the assembly plant, so too the “brand name” of currency used to denominate contracts and trade assets is more important than the “local content” or “national origin” of the standard of value.

The erosion of barriers to trade in goods and services offers clues to what we can expect in monetary affairs. Today, brand-name recognition and identification of goods are more important than ever. When a company like Sony produces a new product – a CD player – that is better and less costly than other brands, consumers will want to buy it. Consumers everywhere are the same – they want the best product for the lowest price! Only barriers to trade might prevent a superior product from gaining global market share.

“Brand name” identification is now also becoming evident in financial and monetary affairs. Lack of global specialisation in the production of goods was due to governmental and technological constraints. International brand identification evolved as these constraints diminished. As we are now seeing in the monetary arena, brand identification of standards of value – money – also becomes more pervasive as falling costs of information and communication technologies make it increasingly easy to compare the quality dimension of standards of value.

Countries whose monetary policies in the past have resulted in large fluctuations in the value of the currency have come under pressure to adopt a system to prevent recurrence of inflations and devaluations. Currency boards and “dollarisation” are two arrangements forced upon governments by their inability to provide a stable purchasing power of the domestic currency. That is, the “brand name” of currency used to denominate contracts and to trade assets is becoming more important than the “local content” or “national origin” of the standard of value.

Anna Schwartz has documented the role of currency boards in the development of central banks.<sup>6</sup> A currency board operates to maintain a stock of foreign exchange reserves equal to the government's issue of domestic currency. A loss of reserves automatically reduces domestic currency by an equivalent amount, which operates to counteract the forces causing the currency drain.

Central banks embody the presumption that human or government discretion can produce better results than an automatic system. Some central banks were created when a currency board was permitted to run down the reserve ratio of domestic money to external reserves from 100% to something less. Now the process may be reversing. Nations find that central-bank discretion – monetary sovereignty – simply delays the inevitable and necessary response to external imbalance. A currency board has the advantages of eliminating discretion and tying the currency to the strong monetary unit of another nation.

An alternative would provide a setting in which private currencies might compete with the government's official money. Recent interest in the possibility of private currencies competing with government-issued fiat/fiduciary currencies has included the potential for reintroduction of specie-backed currencies. Professor Richard Timberlake has put forth a specific proposal for the United

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<sup>5</sup> Klein, Benjamin (1993, previously published in 1974) “The Competitive Supply of Money”, *Free Banking, Vol.3: Modern Theory and Policy*, Lawrence H White, ed, Elgar Reference Collection. International Library of Macroeconomics and Financial History, No.11, Aldershot, UK: Elgar, distributed in the US by Ashgate, Brookfield, VT.

<sup>6</sup> Schwartz, Anna J (1993) “Currency Boards: Their Past, Present, and Possible Future Role”, Carnegie-Rochester Conference Series on Public Policy 39, North Holland.

States.<sup>7</sup> He argues: “sound money advocates should not waste their resources lobbying for a gold *standard*, which by definition would include the state as overseer and manager of a gold currency, specifier of a gold price in terms of dollars, custodian of the gold, and manipulator of a central-bank-issued paper money. No. The only way to ensure that gold becomes a viable money is first to separate the gold from the state and the state from any further role in the operation of a gold money”.

It happens that US official gold holdings are over 260 million ounces, approximately one ounce for every man, woman and child in the country. The Timberlake proposal would envisage awarding a certificate worth one ounce of gold to every person as his or her “birthright”. A market for the certificates would emerge, and the certificate holders could redeem them for bars of gold (400 certificates per bar). The gold bars would then be deposited in a private gold repository that would issue certificates/warehouse-receipts, as well as creating bank accounts for the transfer of title to gold as a means of payment. Legislation requiring specific performance of contracts would allow parties to choose to negotiate settlement of obligations in gold-backed certificates or gold-denominated balances. Clearly, this possibility would provide competition for the central-bank-issued currencies. Whether such a private specie-backed currency could become a dominant standard of value would depend on the performance of the central banks that continue to supply fiat currencies.

Following Hayek, I submit that international monetary relations would benefit from competition among major alternative currency units. This would be more likely to enhance world welfare than systems like Bretton Woods that mandate direction by supranational governmental bodies, which tend to ossify over time.

Countries can take specific steps to allow and even encourage this competition. The first step is to remove any capital- and exchange-controls, including prohibitions on deposits denominated in foreign currencies. Argentina went a step further and clearly signalled its intention to maintain monetary stability by granting people the legal right to contract under any and all circumstances in any currency they might choose. Legislation in Argentina requires courts to enforce contracts in the currency specified therein. This “specific performance” law<sup>8</sup> provides a level playing-field for competition among domestic and foreign currencies.

There is no single best way to achieve and maintain a stable monetary standard of value. Even the commodity-backed currencies of the eighteenth and nineteenth centuries were subject to periodic inflations and deflations – as when new gold or silver mines were discovered, or mines were depleted. The great advantage of the gold standard was that it produced a global monetary system in which almost every country in the world had a currency unit that was the equivalent of a certain amount of gold. That is, national currencies simply represented different denominations of the global money. There is no reason to expect a return to a global gold standard in the foreseeable future. Currency competition offers the best process for maintaining high-quality money.

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<sup>7</sup> Timberlake, Dr Richard (1995) “How Gold Was Money – How Gold Could be Money Again”, The Freeman, pp.204-209.

<sup>8</sup> Specific performance legislation is not a “legal tender law”. Legal tender laws require that residents of a country accept a certain currency in settlement of a financial obligation, *even if* they are owed a foreign currency, gold, or bales of hay. Specific performance legislation means the courts must require delivery of what was promised in the contract, even if that is the currency of another country, gold, or bales of hay.

### 3 Central banking

Nations today no longer provide an anchor to their currencies by a legislative declaration of gold value. Since 1973, almost all the nations in the world have been operating fiat monetary systems in which the goods and services value of a unit of money rises or falls with the parsimony or profligacy with which the central bank issues its money. A central bank now is the only anchor for the purchasing power of a nation's money. But how many different monies and central banks does the world need? With 150 or more "independent" currencies, global trading involves 11,175 or more different exchange rates. Of course, there really are not 150 independent currencies. Central banks tend to cluster in groups based on important trading relations. Several central banks will follow a leader by operating in such a way as to maintain a stable exchange rate with the lead currency. In effect, the followers outsource control over their inflation rate to the policy of the leader. It is the currencies of the leader nations that effectually represent the alternative standards of value in the world.

We have important examples of nations that have explicitly forsaken any notion of monetary independence. The 12 nations participating in the new European Central Bank co-operate in issuing the euro. Before the euro, Holland and Austria firmly tied their currencies to the German mark. Ecuador and El Salvador have adopted the dollar and, a decade ago, Argentina replaced its central bank with a currency board that ties the value of the peso to the dollar. Leading currencies – the dollar, the euro, the yen, the Swiss franc – seem clearly to aspire to independence from other currencies. However, regardless of what monetary policy may prevail in any nation, individuals living in most free societies choose whatever currency they want to use as a standard of value, as a medium of exchange, and as a store of value. Over half of international trade is denominated in US dollars. More than 2/3rds of all US dollar currency is not used in the United States, but by people in other nations, even where prohibited by national laws.

#### **Virility symbol...?**

Why does the world have so many central banks? More than two hundred years ago, John Stuart Mill said "So much of barbarism ... still remains in the transactions of most civilised nations, that almost all independent countries choose to assert their nationality by having, to their own inconvenience and that of their neighbours, a peculiar currency of their own".<sup>9</sup> Mailson da Nobrega, formerly Finance Minister of Brazil, has said that a people, by giving up their central bank, "not only lose the ability to make monetary policy decisions, but also lose some of their identity". So, by the same token, creating and maintaining a central bank – and therefore the proliferation of central banks – may have something to do with the need to develop and maintain a national identity. A dominant trend of the last century was the proliferation of national currencies, especially as new nation states emerged from the breakup of colonial empires and the Soviet Union.

The experience of colonial independence is parodied by saying that the government of a former colony, upon achieving independent nationhood, immediately founded a national airline, adopted a national anthem and re-christened its military band as a national symphony orchestra to play it, and opened a central bank. That may be an unfair caricature, but it does seem that having a national central bank with authority to emit its own national fiduciary currency has been a hallmark of almost all independent nations in the second half of the 20<sup>th</sup> century.

A stronger and more immediately persuasive motivation reinforced the somewhat ephemeral factor of national identity. Control of a central bank gives a government a safety-valve for financing government budget deficits through inflation. Experience has been that all too often the monetary actions of central banks have become a fiscal instrument – imposing the unlegislated tax of inflation on defenceless households and businesses.

Although governments generally understand the benefits of stable money, they also have strong incentives to generate unanticipated inflation. This is especially true of politically weak

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<sup>9</sup> Mundell, Robert (30 March 2000) *Wall Street Journal*.

governments, which attach a low probability to a long tenure and therefore heavily discount the more distant gains of economic growth. Through expansion of money, governments can gain seigniorage and levy an inflation tax without the consent of the public expressed through a legislative process. In addition, through unanticipated inflations, governments are sometimes tempted to try to exploit a short-term trade-off between employment and inflation.

### **...or brand name capital?**

Once caught off guard, however, the public becomes more wary in the future. For their own protection they reduce their holdings of financial assets denominated in the domestic currency. The spontaneous dollarisations of many countries around the world in the early to mid-1980s exemplify this response. Some governments initially resisted these unofficial dollarisations, but their responses to currency substitutions (such as capital controls) tended to compound the inefficiencies associated with monetary instability.

Ultimately, the only way governments can attain the optimal outcome of the fiat money problem is by developing a reputation for behaving in a responsible manner. Switzerland, a small, open economy, has achieved sustained economic growth with reasonable price stability without the aid of a currency board, the European Monetary Union, or pegging to the currency of a larger, monetary-stable economy.

While I don't discount the importance of national pride and a budgetary safety valve in explaining the proliferation of national currencies, I suspect that an even more fundamental historical force has been at work. Policymakers, politicians, and citizens – no less than madmen in authority – are to some extent the captives of academic scribblers of the past. That is, our understanding of the choices available to a nation and of the consequences of making those choices is inevitably processed through received wisdom.

The dominant conceptual toolbox for analysis of central banking in the post WWII generations – at least until recently – has been demand management of the Keynesian or monetarist variety. The burden of the argument in Keynes' General Theory was that monetary policy was essentially powerless to do anything. Likewise, the burden of the monetarist argument through the quantity theory of money was that monetary policy was essentially powerless to do anything except alter the purchasing power of money. Nonetheless, economic thinking of 30 to 60 years ago transformed both Keynesian and monetarist theory into economic theories of demand management. Demand for output or labour might be managed relative to supply, either directly or through the supply of money. And it was demand management that provided a rationale both for activist counter-cyclical monetary policy and for a growth strategy in developing nations. The performance of the real economy came to be attributed to the performance of the central bank in offsetting "cyclical" demand disturbances and in maintaining a low interest-rate environment conducive to economic growth.

For example, consider how a widely-used and respected collegiate textbook presented the role of central banking in 1953, twenty years before the gold exchange standard ended. Keeping money stable in terms of gold might prevent "excessive" expansion or contraction in the money supply, but "no one can reasonably contend that such a policy points the way to anything like an ideal behaviour of money...Some other more immediate objective is necessary". However, "price stabilisation cannot be accepted as an unerring guide" for a variety of reasons.<sup>10</sup>

### **Reputation matters**

It is indicative of the limited conceptual toolbox of central banking that the words "expectations" and "credibility" nowhere appeared in the index to that 1953 textbook. Today, no one would attempt to explain the results of a central-bank action without reference to market expectations of its future actions and its credibility as custodian of the purchasing power of the currency. Major

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<sup>10</sup> Chandler, Lester V (1953) *The Economics of Money and Banking*, Harper and Brothers, New York.

breakthroughs in economic theory began to appear in the late '60s, but they carried over to central banking only with a considerable delay.

The point I want to make is simply that for a long time after WWII the intellectual framework within which central banks operated was a mechanistic Keynesian/monetarist model. Economists would describe its application as single-period comparative static analysis. It was unable to capture the process by which policy might affect the economy, but only the *a priori* prediction of an “all else equal” mental experiment. Empirical estimation tried to recognise dynamics mostly by introducing distributed lags to the adjustment from one static equilibrium to the next.

Is it any wonder that political leaders the world over adopted national currencies issued by national central banks when the static framework for thinking about money seemed to promise the moon? The answer to any problem seemed clear. If employment and output seemed sluggish, “Lower the interest rate”. If the balance of payments deficit became difficult to finance, “Raise the interest rate to attract capital”. If inflation became troublesome, “Raise the interest rate to squash demand”. And if funding the government budget deficit became difficult, “Have the central bank create more money to buy more government bonds”. No matter what the problem, a central bank seemed to promise a ready solution.

Many media commentators still view a central bank as the manager of aggregate demand in the economy, unfortunately reflecting what they learned more than a generation ago. Practitioners, however, have seen or perhaps participated in past policy failures that can be traced to the inadequacies of the static demand-management view.

Now, with a delay of about 30 years, academic scribbling that began to emerge in the late sixties is having its impact. The dominant view within central banking today remains that of an institution with a single instrument, whether described as an interest rate or a money growth rate. But that instrument can be wielded to achieve only a single objective, namely the stable purchasing power of money. Central banking has emerged from behind its façade, changed from an artful panacea to a technology for encouraging economic growth by delivering high-quality money.



## 4 Monetary policy

In the not too distant future, I hope young people studying economics in our colleges and universities will find it humorous at best when the professor describes a recent past period of history when it was thought that a positive rate of inflation was in some ways desirable. There actually was a line of thinking that concluded that a gradually rising price level and gradually falling purchasing power of money was a good thing. In most countries of the world today, most people would consider it a silly idea for their politicians to suggest that a higher rate of inflation would be desirable.

This is not to deny that there are powerful and politically expedient or “necessary evil” arguments about inflation. For some time it seemed that central banks and the activity we call monetary policy operated under the cloud of a fiscal-dominance hypothesis. The idea was simply that any place that found it difficult to constrain government outlays in a range around the amount of tax receipts would also lack the political will to resist the temptation to debase the currency as a form of unlegislated tax. In that sense, monetary policy became a form of fiscal action – an alternative way of financing government expenditures. It was a highly regressive and dishonest form of taxation, as well as a form of taxation that undermined the efficient utilisation of resources. Nevertheless, it was politically popular in many places. The ultimate failure of any policy that was tolerant of inflation, however, has undermined its political appeal.

### **In search of stability...**

An important question for central banks that issue fiat currencies is: How can we expect to achieve monetary stability in the current environment? Recently, questions have been raised about the implications for the formulation and implementation of monetary policy of rapid technological innovation and increased productivity. Efforts to deal with these issues have been confounded by breakdowns in both of the two most popular frameworks for implementing monetary policy.

Let me elaborate on the output-demand and money-supply management concepts I mentioned previously. For a long period of time, people thought about monetary policy within either of these two competing paradigms. One of them had to do with supply and demand for something we call money. The other had to do with supply and demand for output or labour. Both of them enjoyed a period when their statistical reliability appeared quite high, and they seemed to perform pretty well and served as guides to policy decisions. In the United States, and in other countries around world, the supply-and-demand-for-money paradigm worked quite well for much of the post-World War II period. The basic idea behind it was that statisticians could somehow estimate the demand for money balances. If non-inflationary money demand was predictable – stable in a functional way – and if it were possible to control the money supply, then (theoretically, at least) you can keep the two of them in balance and avoid inflation.

The competing paradigm was supply-and-demand for output or employment – the so-called Phillips Curve. There the idea was that supply and demand entered with the reverse relationship. The effort was to estimate the non-inflationary supply of output (or labour) and control the demand for it. So, both paradigms had an element of supply, and they both had an element of demand. Both had something you forecast and something you controlled to try to maintain a balance, and both provided guidance that for some time tended to work pretty well.

Neither paradigm plays a very useful role in thinking about monetary policy today. Money-supply management seemed to come apart in the 1990s, particularly in the US, where the non-inflationary target for the money supply became impossible to estimate. Likewise, the non-accelerating-inflation rate of unemployment that had provided a fixed target for demand management broke down. To our satisfaction, we have witnessed both lower unemployment and lower inflation than had seemed possible.

Instead of these defective paradigms, I find it more productive to think about monetary policy from the vantage point of interest rates in a stable monetary environment.

Economists argue that a household's consumption spending tends to reflect its expectation about longer-term ability to consume. This phenomenon has been called the life-cycle hypothesis, standard or standardised income, or, as in Milton Friedman's *Theory of the Consumption Function*, permanent income.

The basic idea is familiar to everyone. We observe that as transitory changes in measured income or cash flow fluctuate around some longer-term average, household consumption behaviour does not (in the short-run) fully reflect these transitory changes. Rather, it is observed that household consumption behaviour tends to smooth out such fluctuations over time. Sudden sharp increases in measured cash-flow income are not fully reflected in the corresponding increases in current consumption – nor are sudden rapid declines in measured cash-flow income reflected in corresponding declines in consumption spending.

### **...in periods of increasing change**

The way this theoretical framework and its related empirical observations have been used traditionally is to assume that permanent income is relatively stable over time, while transitory changes in measured income are more variable.

However, it can also be the case that in periods of significant technological innovations and rising productivity there is a generalised perception that permanent income is rising relative to measured or cash-flow income. People come to form this expectation in a variety of ways. It may be simply that fewer or shorter periods of unemployment and growing pay-cheques lead them to expect not only that their real standard of living has risen, but that it will continue to rise in the future – possibly at a faster rate than previously expected. People come to expect that they will be able to consume more in the present, as well as in the future, than they previously thought. For example, observing that their savings plans or defined-contribution retirement programs now promise a higher future stream of income than previously thought, households feel justified in consuming more of their current income.

It may also be that a sustained period of low inflation and increased credibility of the central bank's commitment to maintain a non-inflationary environment causes the inflation premium in nominal interest rates to be purged from the financial markets. This affords households (and businesses) the opportunity to refinance debt obligations at lower nominal interest rates and thus reduce debt-service burdens. As a consequence, the discretionary component of disposable income is higher than before, creating the opportunity for greater consumption spending out of a given cash flow.

As a result of any (or some combination) of the various forces at work in the “new economy” environment, households perceive that their long-term ability to consume is higher. They believe they can not only consume more in the future but also, through access to credit markets or through reduced contemporaneous savings, afford greater consumption in the present. In economists' language, they have moved to a higher indifference curve. The trade-off between present and future consumption is manifested in higher real interest rates.

At the same time, in the business or entrepreneurial sector, an enhanced pace of technological innovation and rising productivity mean that the marginal efficiency of capital is higher. Again in economists' jargon, the production possibility boundary has shifted outward. This also translates into higher real interest rates because the new opportunities will be associated with a higher rate of return on new business investment.

Notice that these higher real interest rates are not a matter of policy choice, or of anyone's discretion. Rather they are a manifestation of the economic forces that result in heightened competitive uses for available productive resources. Real interest rates rise in financial markets to compete with higher returns to capital investment. Recognition of increased wealth in ownership of more productive capital makes consumers join businesses in increasing demands for current resources. Higher real interest rates are a necessary part of the mechanism for resolving these competing claims. They also attract foreign investment, which bids up the real exchange rate and

supplies foreign exchange to raise imports to meet household and business demands for current resources.

### ***Gold***

Higher real interest rates need not imply higher nominal interest rates. Under a gold standard, for example, acceleration in productivity growth and technological innovation would cause the prices of some goods to be under downward pressure. Institutionalised monetary stability implied by a gold standard means that the price level falls – the purchasing power of money rises – in the face of greater productivity.

The falling price level means that the greater real income (or wealth) is distributed to society in the form of higher real take-home pay. Households are able to consume more with the same level of nominal income. One might expect to observe that the discretionary components of an unchanged measured income have increased. The falling price level also implies that the same nominal interest rates, or possibly even somewhat lower nominal interest rates, correspond to higher real interest rates. This is the mechanism by which the heightened competition between consumers and investors for available resources results in a rationing process in the marketplace between present consumption versus augmented future consumption.

### ***Tight money***

Similarly, to take a second example, under a disciplined monetary policy that constrains the growth of nominal final demand, we would expect an acceleration in the pace of productivity growth and technological innovation to put downward pressure on the inherited rate of inflation. In fact, the rate of inflation could turn negative, just as under a gold standard, as a result of accelerated real growth reflecting increased productivity. In any case, the inflation premium component of nominal market interest rates declines; the same level of market interest rates embodies a higher real interest rate than previously.

### ***Interest rate policy***

Consider a third possibility – that the central bank simply operates to maintain a fixed nominal short-term interest rate. The upward pressure on real interest rates that is a necessary consequence of greater productivity growth and a faster pace of technological innovation initially causes nominal market interest rates to be under upward pressure. Greater and greater injections of central bank money are then necessary in order to maintain the central bank's fixed target for the nominal overnight inter-bank rate in the face of rising market-determined interest rates. Rising market interest rates mean that the opportunity cost of holding money balances is rising. In turn, that means the quantity of money demanded is lower and the income velocity of money is higher. The combination of the higher trend growth of velocity and the faster growth of central bank money means that a higher rate of nominal final demand growth is accommodated by a more expansionary stance of central bank actions.

In such an environment as this third case, the increase in nominal market interest rates – while initially reflective of upward pressure on real interest rates – will be augmented by a rising inflation premium. Likewise, in this environment the equilibrium overnight interbank rate is under persistent upward pressure so long as it continues to lag behind market determined interest rates.

This dynamic process describes an environment in which an acceleration in the pace of technological innovation and productivity can inadvertently become an inflationary process, as a consequence of the central bank's passive accommodation of the heightened demands for various forms of credit that are necessary to ration the available real productive resources among alternative competing uses.

I have worked through these three cases to show that there is more to monetary policy than meets the eye. Maintaining high-quality money requires careful consideration of the underlying forces of technology before the general outlines of appropriate policy can be discerned. In the context of unusually large increases in productivity, the central bank may be operating to prevent

deflation, not inflation. However, this is unlikely because almost every central bank in the world now implements policy by setting a fixed short-term interest rate. The danger of such an operating procedure is that failure to raise the rate in concert with productivity-driven increases in market rates will produce inflationary increases in central bank money.

## 5 Conclusion

Permitted the choice, people prefer high-quality money. Yet the past century is littered with instances where national central banks failed to provide a stable standard of value. It now seems that the era of government monopolies of the domestic standards of value is drawing to a close. Competition among competing private and public suppliers should be permitted to provide consumers with a choice, a choice that economists declare will enhance well-being.