

Gold, the euro, the dollar and the rand

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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 19th and early 20th centuries.

From 1870 to 1914 the gold standard ruled supreme. In most countries there was freedom to import and export gold. Domestic money was convertible into gold on demand. And most countries had a set of rules governing the ratio of domestic money to that country's gold stock. (A so-called legal 'fiduciary issue' existed, which strictly speaking is an unnecessary regulation in the presence of prudent free market banking.)

The gold standard provided a generally accepted medium for holding international foreign exchange reserves. It provided a means of settling or adjusting disequilibria in the balance of payments of particular countries. It confined fluctuations in exchange rates within the limits of gold transportation costs. It imposed constraints on the growth of the domestic money stock, and by extension, on the international money stock and the world price level. And it ensured that participating countries had their price levels and interest rates moving broadly in line.

The gold standard did *not* produce price stability over time. New gold discoveries resulted in inflations. It did *not* provide immunity from the trade or business cycle (which is not *only* linked to money stocks). And it was *not* used for the majority of international exchanges, but only for national settlements of imbalances (most deals were settled in sterling).

World War I effectively ended the system. The dollar took over from sterling as the lead national currency. The UK tried to link sterling to gold at 1914 prices in 1925 and naturally failed. The US attempted to link the dollar to gold, but the Great Depression (brought about by the behaviour of the US banking system, and having nothing to do with the use of gold) ended the attempt.

In 1933 the US abandoned attempts to redeem dollars for gold to all but central banks.

After World War II the International Monetary Fund asked members to define their currencies either in US dollars or at a value of \$35 to an ounce of gold. The system was similar to the gold standard except that countries were allowed to adjust their exchange rates at times of so-called fundamental disequilibrium. This happened with increasing frequency as countries mismanaged their currencies and inflated their money stocks – in the certain knowledge that there would be a "way out", namely official devaluation making citizens poorer in the future, but benefiting them (or at least those beneficiaries of government spending) in the years running up to devaluations. Countries knew they could default.

America itself defaulted by attempting to have both guns and butter in the 1960s. (Vietnam and the Great Society).

In 1967 sterling was devalued again. In 1971 the US announced it would no longer sell gold at the official price of \$35. The gold component of international reserves, although still in existence, was essentially frozen. Gold's role as money, after 3000 years, appeared to be over.

The era of exchange rates (fixed to the price of gold) had ended. For a short while rates remained fixed and the IMF invented "paper gold" or Special Drawing Rights to enable countries to pay off outstanding balance of payments amounts. But unlike real gold, SDRs were known to be expandable. As a discipline over profligate governments with a tendency to inflate their domestic money supply, they were a weak substitute. The era of floating exchange rates began.

Floating rates have the major advantage (absent genuine fixed rates tied to gold) of alerting electorates to government economic mismanagement virtually immediately. Workers do not approve of inflation reducing their take home pay. The more successful economies where governments realised this most quickly were the USA in the Americas and the Germans in Europe. The dollar and the Deutschmark were currencies which if not as good as gold, were not a bad second best.

Countries whose monetary policies in the past have resulted in large fluctuations in the values of their currencies have come under pressure to adopt a system which will avoid this. "Dollarisation" has occurred *de facto* in Moscow. Legally the Argentineans have tied their currency to the dollar on a one-for-one basis. *De facto* in Eastern Europe much trading was for long done even within national borders, using Deutschmarks. Legally the German mark is about to be subsumed within the Euro, as other European countries hope to have the benefits of German monetary management transposed on to their currencies.

The success of these initiatives will be for history to judge.

But the author of this *Monograph* sees some lessons here for South Africa. The rand has lost much of its value in recent years, both internally and externally. Moreover its decline has been volatile and unpredictable.

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).

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.

Grant's solution is to learn from history. Gold, the dollar and the mark (now the Euro) have long records of success in providing stable standards of monetary value. Fixed exchange rates discipline governments (if the "fix" can be made to stick). What better then than to legally and constitutionally bind the rand to a currency basket of all three (pp.39-41)? The choice of the three has historic justification. The presence of gold would mean that the value of the rand would be determined by the world's two main currencies and by South Africa's principal commodity export. Dollar : euro fluctuations in recent years have been negatively correlated. If the euro rises against the dollar, the effect on the rand would be ameliorated in global trading; and *vice versa*.

____ If the two currencies decline simultaneously against gold, the rand need not fall so far (nor should it), as the presence of gold in the index will help maintain the rand's value just as the presence of gold in the economy would maintain the rand's value in a free market float. And this would be achieved without the costs of a free market float, namely the temptation for government to debase the currency.

The demonstration effect on other economies might be great. Others, large or small, might also wish to include gold in a basket which constitutionally determines their domestic currency's value.

If South Africa wishes gold to have a major influence in monetary affairs it must show the world that it is still possible, indeed desirable for gold to have direct links with domestic money. These links and the disciplines implied will be resisted by many governments unwilling to give up independence to bribe electorates (temporarily). But through the millennia no government has maintained the value of its currency without external discipline. Of which the best is the obligation to convert into trusted currencies (eg gold, the mark and the dollar, but especially gold).

A return to gold, Dr Grant shows, is not fanciful. The gold standard was not the product of an international agreement; it grew spontaneously, and it could do so again, perhaps with help from Pretoria.

The Free Market Foundation does not necessarily agree with all of Dr Grant'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 well-being of our country.

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Author's note

No one invented money: It evolved naturally. Once in existence, however, its form and management were rendered susceptible to man's political will. The "production of money" is now an industry almost completely dominated by governments. When gold and silver were money, the monetary area in which they circulated was larger than any national territory: It was potentially the whole world. The trend toward nationalisation of money, which culminated in its estrangement from gold or any natural value, fragmented the international monetary system into a multitude of locally important national and colonial currencies. This has been an expensive process. It has taken time for observers, including government leaders, to see that money works better when it is recognised and accepted in a larger market.

In January 1999 the new European single currency, the euro, came into existence. In that same month my book, *Real Money*, came off the press. *Real Money* was written to clarify and simplify, for a wider-than-usual readership, a subject that affects everyone but is too often obscured in a cloud of jargon and redundant and complex financial mechanisms. A citizen need not understand every detail of what his or her government is doing or proposes to do. But liberty and prosperity can be gained and sustained in a democracy only when a significant number of citizens make the effort to observe and understand – and to make their knowledge and values felt. Indeed, the continuance of democracy itself depends on this.

The present volume can be understood profitably by readers with or without an economics background. It can be read independently now, and readers who are interested in a deeper treatment can then refer to *Real Money*. For those who have already read *Real Money*, the present volume can be viewed as a supplement that offers explanations of a wider selection of monetary policy options. Neither of these two volumes promises the perfect policy. But we can have a better money, and more of what it can and cannot buy, than we have now.

Richard J Grant

1 Is our money a problem?

A tough job

A central bank governor who understands, and takes on, the full burden and responsibility implied in the nature of his duties is not to be envied. Being held responsible for the levels and trends of a country's inflation rate, exchange rate, interest rates, and economic growth rate is no light duty. No matter what he does, there will always be someone criticising his actions as “too little” or “too much”, “too slow” or “too fast”, “too flexible” or “too strict”, or just plain “inappropriate”. Such criticism contributes to the ever-present pressures directed subtly, and not so subtly, at the governor by those who see themselves as stakeholders affected by the central bank's decisions.

Running a business is one thing. But central banks are creatures of government: Their bottom lines are political. Their key officers are appointed by the government, and their income statements provide only a tiny portion of the criteria by which their performance is judged. A central bank's stakeholders want something much broader than a merely profitable central bank, and they rarely agree on the details even when they reach consensus on the big things. Everyone is affected by what the bank does – and many companies, organisations, and individuals see it as in their interest to take some sort of action to influence policy decisions.

This is what a central bank shares with other divisions in the governmental bureaucracy: Plenty of power, but a shortage of objective standards by which to determine goals and guide performance. Not only is it daunting to decide what a central bank should do, but also it is not at all clear who should decide. Who is, or should be, “the boss”? Who are the shareholders? Who are the customers? Is it everybody? It is difficult enough for a private business to stake out and defend the limits of its “social responsibility”, but a governmental organisation is rarely allowed to set any such limit. Ostensibly, its whole reason for being is to serve a broad public interest. The duties of any department or agency will be focussed on some particular subset of policy, but the bottom line remains subjective and politically open-ended. The true extent of its influence is limited only by the constraints on its power, and by political will.

There is no direct *best-for-now-and-all-time* solution to the set of perceived problems that have given rise to present-day central banks. All we really have is prudence – and that not-overly-abundant attribute must be nurtured and made recognisable in each generation. The closest that we may get to achieving a sustainable policy solution will be through recognition of the natural limitations inherent in any human organisation, the central and most glaring example of which is a lack of omniscience. Within our broad community, advances are made each day in the understanding of the world around us. There are also retreats from understanding while errors of perception and comprehension go unrecognised. Despite the net advances that we have come to expect in many directions and across disciplines, there are clearly some dimensions of knowledge and information that are closed to us by the very nature of our present existence. With respect to public policy the best that we can hope to do is to recognise those limits when deciding what we *should* do. The limits themselves will determine what we *can* do. And we always insist on doing *something*.

Prudence, then, is what we expect of our central bank governors. Then we set them to work in a context that renders the meaning of “prudence” ambiguous. When the key stakeholders set a goal (or, as often happens, conflicting goals) and then judge performance based on a different goal, or express outrage at the path chosen to reach the goal, the governor is forced either to play the distracting game of “smart politics” or to take his talents elsewhere.

A tough life

Most people are, of course, oblivious to the travails of the central banker. They are too busy making a living, and never have the inclination to master the subtleties of currency theory, or to develop an appreciation of the difficulties faced by politicians. But they do know when prices and interest rates rise; they know when work is hard to find; they know when life is better in another country. What they do not know is why this is so and what to do about it.

On behalf of the government and “the people”, the central bank of South Africa, the South African Reserve Bank, is tasked “to protect the value of the currency in the interest of balanced and sustainable growth” [*The Constitution of the Republic of South Africa, 1996*, Section 224(1)]. Primary to this task is the actual supply and management of the currency, which in South Africa is the rand. The task and powers of the South African Reserve Bank are typical of those of central banks around the world. Through force of law, central banks enjoy true monopoly powers that give them a breadth and persistence of market share that cannot be attained by any unprotected private company. Legal tender laws require creditors to accept the national currency at face value in payment of any debt or obligation. This, plus its required use in the payment of taxes, forces people to conduct at least some of their regular transactions in the protected currency. Certainly national pride and trust in the government will encourage routine use of the national currency, which in turn builds familiarity and comfort. People know that most others will readily accept cash as payment. As a result, most transactions within a country are conducted in the national currency.

When all goes well, this makes life easier. It is good to know that when you go into town to make some purchases, you need take only one kind of money. As a further benefit, you need to memorise only one set of prices: Those quoted in the national currency. There is no need to bear the expense of exchanging currencies and the inconvenience of calculating equivalent prices to compare between currencies. By saving us from extra exchanges, from holding multiple currency inventories, and from a tedious web of cross-currency calculations, a common currency brings us real savings in terms of our time and other resources.

Even when things go badly, we will continue to use our national currency – up to a point. Each person’s tolerance of currency weakness is different. Many of us have experienced double-digit price inflation; some may even have experienced three or four-digit inflation. That experience has taught us that money can be a “wasting asset”, not merely fluctuating in value, but steadily and perceptibly losing its purchasing power between paycheques. The more rapidly the inflation proceeds, the more rapidly our cash loses its value compared to the things we want to buy. Similarly, anything denominated in our weak currency loses value. The real values of corporate and government bonds fall. As expectations of further inflation push up interest rates, the nominal prices of those bonds also fall.

When inflation rises ahead of expectations, lenders are hurt by being paid back with a sum of money that is contractually correct in theory, but in practice provides less purchasing power than had been expected. On the other side, borrowers score by spending their borrowings when the purchasing power is still high, but obtaining the money to pay off the debt after the purchasing power has fallen. This makes lenders less willing to lend, and borrowers more eager to borrow, which helps explain why interest rates rise with inflation. If inflation continues to rise, borrowers will fear that interest rates will be even higher in the future, so companies and individuals in need of funds will feel compelled to borrow sooner and for longer periods in order to avoid having to borrow later at higher rates.

Interest rates will tend to rise until lenders are able to receive positive real returns. This means that potential lenders will choose other forms of investment unless they are compensated for the expected loss of purchasing power of their principal. When taxes are imposed on interest earned, the burden on lenders is magnified by inflation. The lender must pay tax on his compensation for purchasing power loss, and that payment could wipe out any real return, possibly leaving a real loss. So why bother to lend? In this case the lender’s loss is not the borrower’s gain. In order for lending and borrowing to continue, both sides would have to accept an outcome worse than they could achieve in the absence of inflation. Building capital and doing business are made much more difficult.

During a period of price inflation not all prices rise at the same rate; some prices may even fall. Changes in relative prices are a part of our lives whether we experience inflation or not. This is how information about the relative demands for, and supplies of, various goods and services are transmitted to and from the billions of individuals who play a part in the world economy. In those currency regions that are experiencing inflation, it is only on *average* that prices are rising.

An exchange rate is a price – the price of one currency in terms of another. When a currency loses purchasing power in the local market place, it will also lose purchasing power compared to other currencies. However, if another currency is being inflated faster, then *that* one will probably fall in value at a faster rate. Thus, although a currency may appear weak compared to the values of goods and services and many other currencies, it may appear “strong” compared to the most-inflated currencies.

The rand, the national currency of South Africa, may appear strong when compared to the Turkish lira, which has had an inflation rate ranging between 39% and 120% during the past few years. But compared to the US dollar, the rand has been weak. Although the exchange rate has been held steady for brief periods, during the past 30 years the rand has lost over 90% of its value compared to the dollar. (The dollar has also lost purchasing power, which means that the rand has lost significantly more than 90% of its purchasing power in terms of goods and services. This means that a good that cost one rand in 1971 would now cost well over ten rand.) In South Africa, inflation is not ancient history: In the five years from March 1996 to March 2001, the rand lost 50% of its value compared to the dollar. During the year 2000 alone, the rand depreciated by over 20%. For people trying to preserve the value of their capital in rands, life is tough.

Some national currencies are deliberately inflated, which means that the central bank deliberately increases the quantity of money that it supplies to the market. By supplying money through the banking system, it is hoped that the apparent increase in credit will stimulate greater economic growth. It is also hoped that the greater supply of money will cause the exchange rate of the currency to fall thereby reducing the prices that foreigners would have to pay for the goods exported to them, encouraging them to buy more.

A falling exchange rate for the local currency may help exporters in the short run, but it hurts importers and their customers. Local prices of imported goods will tend to rise, or supplies will be reduced. Similarly, it may also hurt the exporters’ local customers as the prices of exportable goods rise. Any benefits that a weak-currency policy might generate are bestowed on only a portion of the population. With the rise of local inflation (which includes a rising cost of imports) everyone, including exporters who live within their home market, must take extra measures to protect their capital.

Inflation causes disruption to the economy long before prices start to rise. The price rises are the simple effect of the central bank causing, or “allowing” for whatever reason, the quantity of money to expand faster than the production of goods and services in the economy. When the central bank issues money, it creates the currency from nothing (or rather from paper and ink, or an electronic book entry) but then uses that money to purchase an already existing asset, such as a government bond. This would have an immediate upward effect on the prices of the assets purchased and, in the case of bonds, a short-term downward effect on interest rates.

As the newly issued money is lent and then spent on various goods, the effect on prices spreads gradually (though unevenly) throughout the economy. The manner in which the new money comes into existence has a real impact on relative prices, including interest rates. Depending on the magnitude of the price ripples, business decisions may deviate from what they would have been. That in itself is not unusual: An important function of prices is to communicate supply and demand information to which people can respond. But the transitory nature of the price ripples caused by the injection of new money can send misleading signals to producers and borrowers, creating expectations about future business conditions that are unlikely to be fulfilled. From this, mistakes are made. If the mistakes are big enough, businesses will later be forced to change course, shifting resources from one method of production (or line of production) to another. This entails real losses of capital and, at least temporarily, losses of jobs. For people who need to work, life is tough.

A monetary problem

Excessive monetary inflation leaves in its wake confusion, uncertainty, error and, ultimately, real economic destruction. Recession is the real, but necessary, clean-up process after an inflationary monetary indulgence. The appearance of occasional economic slowdowns in various dynamic sec-

tors should not be surprising. But when high inflation is tolerated and allowed to persist, economy-wide recessions become a chronic feature of a nation's business life. It is one of the big reasons why "developing countries" seem unable to develop at all. Such countries exhibit spasmodic low growth, a capital shortage, high interest rates, a persistently weak currency, low business confidence, a skills shortage, a "brain drain" – and capital flight from those countries able to create or attract it in the first place. Not incidentally, such countries also tend to impose high taxes, with the revenues being dissipated mostly on administration and politically inspired projects rather than being used to provide basic essential services. When tax revenues are not sufficient to satisfy the planners' ambitions, they plunge the country further into debt. Such countries also tend to place high, and generally unnecessary, regulatory hurdles in front of citizens who are trying to carry out simple business and life-sustaining activities. Rarely, if ever, do high inflation, profligate government spending, and heavy regulation achieve the politicians' stated goals. Instead, they make the lives of honest, hard-working people more difficult, while creating opportunities for the corrupt. Corruption, in turn, breeds a disrespect for private property and contractual rights – in turn discouraging saving, investment, and so economic activity itself.

The governor of the central bank may not have the power to act directly on fiscal and regulatory matters – though the words of a man of reputation and prudence will carry weight well beyond functional boundaries – but he can, and must, directly manage the conduct of monetary policy. The purchasing power of the currency is in his care. Inflation and high interest rates are not his enemies; they are his mistakes.

As long as inflation persists, the people will bear its burdens. It takes time to work, save, invest, and build a life. The capital lost to inflation is time lost, and time lost is never regained.

2 Dealing with monetary problems and policy

Does South Africa have a monetary problem? We can observe the relevant facts, but whether or not we see a problem will depend on our interpretations and values. For the year to January 2001 the published annual rate of price inflation was seven percent. The price index called CPIX, which excludes mortgage bond payments and is used by the Reserve Bank to target inflation, showed an annual inflation rate of 7.6 percent. By March 2001, the CPIX showed a yearly increase of 7.5 percent; but the annualised quarter-to-quarter increase for the first quarter of 2001 was only 6.1 percent.

Inflation could be worse – and has been worse – so perhaps everyone ought to be happy. The Reserve Bank has an official target range of 3%-6% for the CPIX, to be achieved during the year 2002. This means that the Bank is officially working to reduce the *average* rate of price inflation below six percent for the year ending December 2002, after which it would presumably lower the target range – though there is no target yet published for 2003. If the downward trend in quarter-to-quarter inflation is maintained, the yearly rate of price inflation should easily drop below six percent by the *beginning* of 2002.

Given what we now know about the recent history of “inflation fighting”, a target range of three to six percent is not very ambitious. The range between zero and two percent appears to hold the status of an international benchmark of excellence by central bankers’ standards. A drop in rate from 7.5 percent to six percent is a reduction by one fifth. If the Reserve Bank achieves this by January 2002, then this implies that it is willing to reduce the price inflation rate by at least one fifth per year. If, instead, the target range is achieved only in December 2002, the implied rate is one fifth every two years. At these rates it would take between five to twelve years for the rate to drop below two percent. The Bank could, of course, do better or worse in its timing.

What other effects does this suggest will occur during the next six to twelve years? Obviously the rate of price inflation will remain above two percent; prices will continue to rise quite perceptibly, though at progressively slower rates. The exchange value of the rand will continue to fall relative to the US dollar and other major currencies during this period, but the rate of decline will become smaller as the local inflation rate approaches that of the other countries. As prices rise, the real value (purchasing power) of contractually fixed wages will decline, reducing labour costs relative to productivity. This will help temporarily to encourage companies to maintain their employment levels until their next round of contract negotiations pushes wages up to match changes in the price level. As the rate of price inflation falls, labour negotiators will have less and less justification to demand large wage increases in future contracts. The stretched-out timeframe may allow time for expectations held by a portion of the labour force with greater political than economic significance to catch up with market realities. Over time, this should help to reduce the incidence of labour disruption and to deflect political pressures from the Reserve Bank.

These effects imply some trade-offs at the policy level. As the rate of inflation falls toward zero, the need to reduce inflation carries less urgency than it did when the rate was falling toward 15 or 10 percent. Thus there may be a tendency to underestimate the remaining costs of inflation compared to other more politically potent considerations such as real wage rates, economic growth, and export “stimulation”. The drawn-out period of inflation-reduction delays the arrival of an era that might be considered “normal” in terms of price structures, production structures, financial structures, and consumption patterns. The gradualness of the transition may allow time for the adaptation and survival of some currently existing business interests that might (or might not) have been liquidated in a faster transition. However, the decision to follow the path of gradualism can cut both ways. The same slowness that saved some businesses will also delay the start-up of others, with the permanent loss of wealth and potential employment opportunities that are pushed off by such a delay. Furthermore, other potential businesses will miss an opportunity to come into existence at all. All such businesses may find life, and a head-start, in other countries. When analysing policy trade-offs, it is important to remember that existing interest groups can apply political pressure now, whereas future interest groups cannot.

Another dimension of monetary policy remains important after the transition period as well as during it. That is the choice of the actual method of monetary control. We know that price inflation is associated with inflation of the quantity of money, and we know that central banks can control the quantity of money when they choose to do so. But when it comes to deciding what central banks should do, and how they should do it, there are strongly opposing views. Disagreements arise over a range of issues from choice of monetary target to whether or not the central bank should exist at all. Within the central banking community, however, similarities of thought seem to outweigh the differences. For example, it is common practice for central banks to manage demand and supply of money by exerting influence on interest rates rather than directly controlling money supply.

In *Real Money*,¹ I made a case explaining in detail why I believe that interest rate targeting and the targeting of *broad* monetary aggregates, such as M3, are inferior to direct and steady control of the monetary base, M0. I also made a case for central banks to constrain their use of discretionary powers, and for government as a whole to adopt a constitutional attitude to keep policy more consistent over time, and to make outcomes more predictable and desirable. I then offered a suggested plan of transition to a stable, rules-based system of monetary-base management. This was supplemented with a compatible “gradualist” alternative, “lump-sum inflation”, that would work especially well in bringing inflation down from very high levels, but would also work well to bring inflation down through single-digit levels easily to achieve the Reserve Bank’s present targets.

Two other methods of base control that would require larger institutional adjustment, a *gold standard* and a *currency board*, were offered as longer-term alternatives. The following sections of this essay will explore further the workings and implications of these particular approaches to monetary policy, followed by some further variations that would offer greater harmony with world trends.

Goals, targets, and methods

Goals are the reason why we have policies, and goals are the standards by which all policies must be judged. Policy makers who try to do “too much” may still do some good, but just as often they make things worse than they would have been. This has been the case in monetary policy. By trying to stimulate economic growth, encourage exports, minimise unemployment, and reduce interest rates, all through the use of the central bank’s ability to expand the money supply, policy makers have brought on inflation, recession, currency weakness, increased unemployment, and higher interest rates.

Over time, policy makers have come better to appreciate the complexity, and beneficial nature, of that natural network of human interactions that we often refer to as “the market”. Where there are humans there will always be human relationships, regardless of the particular form of governmental ideologies, policies, incentives, and restrictions. When a government tries to do too much, whether for the narrow benefit of the administrators or to be a mother to all citizens, it usually manages only to stultify and darken human relations, leading many citizens to wish that they lived somewhere else.

As tools of government, central banks have tried to do too much in the past. During the past twenty years central bankers, and the governments to which they answer, have come to accept that fewer, simpler, and non-contradictory goals will allow better overall results than were previously experienced. Now central banks are increasingly allowed to focus on one goal, notably controlling inflation. This appears to be the case in South Africa where (as noted above) the Reserve Bank has announced the goal of moving the inflation rate, as measured by the price index called CPIX, within a target range between three and six percent during 2002. This is simple and achievable; it says nothing about exchange rates, interest rates, or money supply. It does not even mention economic growth, yet remains true to the Bank’s constitutional purpose. Although the central bankers can never ignore the effects that their actions have on these latter variables, they are now more likely to

¹ Grant, RJ (1999) *Real Money*, Free Market Foundation, Johannesburg.

have the latitude to do what they believe necessary to control price inflation. The next step is to determine what is necessary, and what is the “best” method, to control inflation.

Available tools

A central bank cannot directly control all prices. Even if the government were to give it such powers, any attempt to use them would create a costly bureaucracy and would ultimately lead to widespread shortages and surpluses of goods, forcing many activities “underground” in order for people to protect their standards of living. This approach has been tried in many countries where it wasted resources and put a drag on the whole economy. Direct price controls divert and distort all communications in the market. We all know this – price controls are out of the question.

The only tool that the central bank can use to influence prices is its ability to control the quantity of money that it supplies to the market. The trouble is that it does not know exactly what effect a given change in the quantity of money will have on the general price level, or even *when* it will have an effect. We know that an increase in the quantity of money will cause the price level to be proportionately higher than it would have been. We also know that this effect will appear gradually over time. When a central bank, such as the Reserve Bank, attempts to achieve a future price-inflation target, it must predict the effect and timing of its present actions. That the Reserve Bank recognises the difficulty of such predictions is reflected in the three-percentage-point width of its inflation target range.

In order to succeed, the Bank must cause the level of the national money supply to follow a path that will allow inflation to fall within its target range on schedule. That may sound simple, but it leaves open the questions of which definition of money to control and how to control it. In *Real Money* I made the case that management of broadly defined money, such as M3, constitutes undue interference in the business of private-sector banking; it goes beyond the simple provision of currency. *M3 consists not only of currency in circulation, but also of almost all deposits held in commercial banks.* The argument against targeting M3 is rooted, not in an ideological dislike of government interference, but rather in a recognition of the fact that the central bank’s actions would actively counteract the net effects of private citizens’ banking decisions. In the course of doing this, the central bank causes wider fluctuations in the quantity of currency and bank reserves as well as in interest rates, thereby altering signals in the marketplace. This, briefly, is why I recommend direct control of the monetary base (M0) according to a simple growth rule.

The monetary base is the sum of rand notes and coins in circulation plus the reserves of commercial financial institutions held at the Reserve Bank. Deliberate control of the monetary base is compatible with the targeting of inflation, and could be used now by the Reserve Bank to achieve its targets. Base control is also compatible with the targeting of exchange rates, and is necessarily used in countries with currency boards and in other countries that fix their exchange rate with respect to another currency. In each case, the central bank would follow a different set of rules. The different variations of these approaches to monetary policy will be examined below.

Rules versus discretion

All central banks follow some kind of rules. These rules may not be explicit; they may not be consistent over time; they may not even be agreed upon by all officers in the bank. In other words, some central bankers will do whatever they believe is the right thing at the time, given their understanding of cause and effect, and their reading of current economic conditions. This is what we usually call “the use of discretion”. We speak of central bankers “following rules” only when those rules are explicit, limit the need for “judgement”, and are respected and followed over time. Sometimes these rules are known to the public; sometimes they are not.

The use of discretion implies that the central banker believes he will be correct more often, and wrong in less damaging ways, than any monetary-policy rule would be. The correctness of this belief has yet to be demonstrated. We do have many examples of discretionary actions making matters worse; we also have examples of the use of bad rules. The task of this essay is to offer a menu of workable rules that will reduce the need for discretion within a central bank. In the meantime,

millions of us (even those of us who live outside the US) will continue to be distracted each month by the speculation over what Alan Greenspan² and his board of US central bankers will decide to do to interest rates.

Zero growth of M0

Following a constant-growth rule for the monetary base is a relatively simple matter. The hard part is choosing the rate of monetary base growth. A strong case could be made for zero growth, which means a constant level for M0. This would almost certainly result in a general price level that falls as the economy grows. Such a downward trend in prices should not be confused with monetary deflation – there would be no reduction in the quantity of money.³ Even under a gold standard, prices would be expected to fall – though at a slower rate, which might be preferable. The downward price trend would be the result of increases in production, which always raises the purchasing power of money above what it would have been. The rising purchasing power of money will not cause people to hold cash and delay spending in the hope of buying later at lower prices. Falling prices would be associated with an expanding economy and rising real incomes, which always seems to give consumers and investors “confidence”. In addition, there is no reason to expect a change in time preference, which means that interest-bearing securities and bank accounts would continue to offer higher returns than would holding cash.

It should also be emphasised that even with a fixed quantity of base money, the banknotes of the central bank will continue to circulate as normal. There will not be, as some might now fear, a shortage of cash. Although the economy will be expanding, this growth will be matched by an increase in the purchasing power of each unit of currency. Money will buy more, so people will not need to carry as much cash as before.

Moving from a world of rising prices to one of falling prices would seem odd at first. But prices would not fall any faster than the economy would grow. That would be a much more predictable and preferable situation than what we have now. The direction of exchange rates would also take a new turn. Central banks that hold their monetary bases constant would find their currencies appreciating compared to those that allowed inflation. The rand would become a strong currency, and a safer haven for investors. This prospect would make exporters worry about losing sales due to the loss of the subsidy that they currently receive (at others’ expense) in the form of a depreciating currency. Without the disruption of inflation, however, exporters would soon find that with their local prices falling, their international competitiveness would be enhanced in the long run. Nevertheless, many people might feel more comfortable supporting new policies that bring about generally stable prices rather than falling prices, and roughly stable exchange rates rather than an appreciating currency. A policy that does this would bring the rand more closely in line with the world’s major currencies, and would be more likely to neutralise most political resistance. Later sections of this essay will examine this type of policy option.

Financial-sector deregulation

Those who choose a constant rate of M0 growth (whether it is zero or a higher rate) should be prepared to deregulate their financial sectors well beyond what any government has yet contemplated. In other words, the role of supplying an “elastic” currency (one that is responsive to short-term fluctuations in market demand) would be denationalised. Although the government (through the central bank) would supply and maintain the base currency, the private banking sector would supply all the “money-substitutes” that would be needed by customers, and would improve the efficiency and convenience of financial transfers. Present examples of money-substitutes are bank deposits, and other almost-perfectly liquid assets – especially those accounts from which money can be easily transferred using cheques or debit cards.

² Alan Greenspan is the chairman of the US Federal Reserve Board, ie governor of the US central bank.

³ To avoid such confusion, in *Real Money* (and elsewhere) I make a careful distinction between monetary inflation and price inflation.

Money-substitutes are not substitutes in the sense of being a separate money that is independent of the base currency. These assets are claims to a fixed number of units of the national currency. (For example, if you deposit R100 in a bank account, the bank owes you R100.) They are substitutes in that they appear to circulate separately from the currency; people need not hold cash. But what the money-substitutes actually do is facilitate the transfer of ownership of units of currency. In other words, they speed up circulation of the base money.

Deregulation of the financial industry would allow banks to innovate and offer new products that are presently either not allowed or not yet invented. It would also make possible the reappearance of old products in a new form. One product that might come into use – and I offer this speculatively – would be paper banknotes issued by commercial banks. These would probably require some “sweetener” such as interest payments to encourage people to use them rather than (or as well as) those issued by the central bank. (A metal strip could “remember” how long the banknote was in circulation, allowing interest to be paid accordingly.) Trusted commercial banks could issue their own notes to borrowers who would then find the notes to be accepted at par by many retailers. R100 of private banknotes would purchase the same amount goods as R100 of notes issued by the Reserve Bank. It is hard to imagine such private banknotes ever becoming as common as Reserve Bank notes, but they would probably serve well in those seasons when there is a higher than normal need for paper money, as happens every December. The Reserve Bank would no longer be in a position to inflate the monetary base in order to counteract the changes caused by seasonal increases in the use of consumer credit, or by withdrawals of cash from private-sector bank accounts, by Christmas shoppers.

Positive growth of M0

It is understandable that policy makers, and members of the public, might be wary of making so clear a change to monetary policy as fixing the monetary base at a constant level. What is proposed above has never been tried in the manner prescribed; it would require a demonstration of determined political leadership under the sceptical scrutiny of many local and international observers. All things considered, it would be politically easier to match the inflation levels of the major currencies rather than try to outdo them. This also can be achieved using monetary base control, adjusting the rate of M0 growth accordingly. This differs from what is normally meant by “inflation targeting”.

As one raises the proposed growth rate of M0 above zero, it must be remembered that the higher the rate, the higher will be the future level of price inflation and the greater will be the disruption caused by the creation of new money. At low rates of increase these effects are small, and the steadiness of the monetary increase will minimise disruptions at any given rate. Ultimately, all policies are judged on the basis of their expected overall consequences. Lower rates of inflation are now recognised as allowing greater levels of long-term economic growth than do higher inflation rates.

The setting of a constant-rate-of-growth rule for the monetary base implies a prediction, and a value judgement, as to the expected course of price inflation and long-term real economic growth. Without pretending that precision is possible, over the long term the level of price inflation will be roughly the rate of monetary growth minus the rate of economic growth. Or:

$$\text{M0 growth rate} - \text{Average GDP growth rate} = \text{Average price-inflation rate.}$$

For example, if we expect economic growth to average three percent per year, and we want an average price-inflation rate of zero, then we would set the M0 growth rate at a constant three percent per year. If, instead, a price-inflation rate of one percent were preferred, the growth rate of M0 would be set at four percent.

Why might one-percent price inflation be preferred to zero? Suppose that one percent is the price-inflation rate of a currency in which considerable international trade is conducted, for example, the US dollar or the euro. A reasonably stable exchange rate with either of these two currencies

would reduce currency risk and facilitate international trade and investment. By approximating the average price-inflation rate of the United States, the Reserve Bank would also reduce the tendency of the rand to rise or fall compared to the dollar. This is not, however, the same as fixing the exchange rate. A smaller country has a smaller trade base for its currency; any short-term change in trade patterns will have a much larger proportionate impact on the rand than on the dollar. There will still be fluctuations in the exchange rate, but with similar rates of inflation there will be one less reason for long-term trends, either upward or downward, in the rate of exchange. An attempt to fix the exchange rate would require fluctuations in the local quantity of money, a topic that will be discussed below.

Another reason that policy makers prefer the monetary base to grow is that their government is able to spend that new money. The gain to the government (and loss to currency holders) is called seigniorage, and in South Africa it adds between R2 billion and R4 billion to government revenue each year. That is a small percentage of the total budget, but it is not an amount to be easily passed by.

Lump-sum inflation

For policy makers who prefer a more “gradualist” approach to inflation reduction, rather than a rapid decrease in the M0 growth rate, an alternative would be to begin the program with “lump-sum inflation”. This approach retains much of the simplicity and predictability of constant-rate base control, but brings down the M0 growth rate more slowly by fixing the number of rand produced by the Reserve Bank each year. This approach would fit very well with the Reserve Bank’s present cautious approach, but would enhance its control and credibility.

Suppose that the monetary base is R40 billion, and that we wish to reduce its growth rate from, say, ten percent per year. Ten percent of 40 billion is 4 billion, so we would set the annual *amount* of increase at R4 billion. By the end of the first year, the monetary base would be R44 billion, but the amount of increase for the second year would remain at 4 billion, which is only a 9.1 percent increase. Each year, in this way, the percentage increase would become smaller. When the rate of increase falls to a desirable level, the Bank can switch to a constant *rate* of increase.

3 Independent standards of value

Management of the currency through a constant-growth rule for the monetary base keeps the currency separate – in definition and in value – from any other commodity or currency. When the growth rate of M0 is zero, this is clearly the case. When the growth rate is set so as to result in an *average* price-inflation rate of approximately zero, there is no direct tie to any *particular* commodity, and there is no fluctuation in M0 away from its constant growth path to maintain a precisely stable price level. The central bank might choose periodically to raise or lower the M0 growth rate, but the currency's value would not necessarily be fixed to any index that is used to measure it.

Other methods of monetary base control deliberately fix the value of the currency to some independent standard of value, a unit of account outside the control of the local central bank. In *Real Money*, I briefly describe three such methods: Price-level targeting, a gold standard, and a currency board. In the present essay, I will review these three topics before moving to a more general examination of fixed exchange rate policies, including the *de facto* adoption of another currency in domestic transactions, as in the case of “dollarisation”.

Price-level targeting

There are two distinct types of price-level targeting: a) directly targeting a price-index level, and b) targeting the rate of change of an index, ie inflation targeting. Either method is dependent on the choice and maintenance of a particular price index, such as CPIX, which creates a broad commodity basket as a standard of value for the currency. Targeting a *price-index level* implies seeking that level even after it has been exceeded, which means that in such cases prices would have to fall to get back on target. In contrast, targeting a *rate of inflation* would not require a compensating fall after the target is exceeded. The objective would be merely to return to the desired (targeted) rate of change in the index. This is why inflation targets are generally preferred to price-level targets.

Price indices, when thoughtfully constructed, can give a reasonably objective standard of value for the central bank to target. However, none of these indices should be confused with an *absolute* standard of value, a benchmark that is unattainable in the realm of commerce. Furthermore, an index has no concrete existence; it is not the price of any good or service that can be traded – although an attempt to mimic it can be made in the futures markets. An index is an abstraction, and the broader it becomes, the greater the difficulties and expenses involved in its compilation and interpretation. Also, and most importantly, the broader the index, the less responsive it is in terms of both accuracy and timing to any action of monetary policy.

In a discretionary regime, the central bank's response to inflation may be either “history-dependent” or “forward-looking”. If it is history-dependent, the central bank adjusts its actions in response to what has actually happened to the rate of price inflation. When the price index is seen to be rising faster than is desired, the Bank will attempt to raise interest rates or slow the growth of the monetary base. Any such current action by the central bank will affect some prices immediately, but will have a significant cumulative effect on prices only after a period of several months. Thus the price indices do not respond completely or instantly to a particular monetary action, but rather exhibit a variable time lag. By the time a rise or fall in price inflation is recorded, any action against it will deliver its main effect only much later, by which time conditions might have changed anyway. This is why many central banks have chosen to adopt a forward-looking approach to inflation targeting.

A forward-looking approach to inflation targeting usually consists of an ongoing attempt to forecast the “demand for money” and to adjust the rate of growth of the supply of money in the hope of actively matching it to the anticipated demand. When this is successful, there is neither upward nor downward “pressure” on prices in general. But of course there is never a time when changes in interest rates and the quantity of money have no effect on any prices. Every action by the central bank has some effect on *relative* prices and on expectations about future economic conditions. So even if the forecasts of money demand were always accurate (which they are not), there

would still be the uncertainty of the total impact resulting from the central bank's adjustment of money supply.

Both history-dependent and forward-looking methods of inflation targeting can be used successfully to bring down the average rate of price inflation. But both share the defect of potentially generating liquidity effects (fluctuations in interest rates and credit supply) that are out of phase with the actual demand conditions. This could make any economic situation worse than it would have been – as it seems famously to have done when the US Federal Reserve raised interest rates during the early months of the year 2000 in order to stop an inflation that was never there. For all the effort expended on inflation forecasting, and the active efforts of targeting, the results are generally a small consolation – compared to the results of other possible methods.

Gold standard

A gold standard is a method of price-level targeting in which the targeted price index contains only one good: Gold. The currency unit is defined as being equal to a particular weight of gold. That also determines the exchange rate between the currency and gold. In order to keep the exchange value of the currency stable with respect to gold, the issuers of the currency must be prepared to issue unlimited quantities, or to redeem all, of the currency in circulation at the promised price. In other words, they are required either to sell or to buy unlimited quantities of the currency to or from anyone who offers or demands gold. A failure to do this would result in the exchange rate going up or down.

Use of the term “gold standard”, usually implies a method of backing a *national currency*. This is not the only manner in which gold has been employed; gold and other commodities, especially silver, were used as money long before national currencies came into existence. Such governments as there were in early times naturally adopted the use of the same media of exchange that were current in local commerce. Over the centuries, and with regional differences, governmental involvement with the production of money has varied, but has generally increased right up to the present-day dominance of fiat-money currencies. Through the effects of official policy, gold has firmly been pushed aside as a common medium of exchange, but it retains its importance as a reserve currency (still held by central banks) and as a *de facto* (though generally unacknowledged) unit of account. This unit of account function is demonstrated in the widespread publication and following of the gold price (in various currencies) by journalists, investors, and public officials. A rising gold price brings worries of inflation, and a falling price brings worries of deflation.

The US dollar has been a strong currency for many years; the South African rand has been a weak currency for even longer. Both currencies would have performed better had their values been fixed to gold. The US monetary base has fluctuated over the years, but during the year 2000 it contracted – an actual monetary deflation. The South African rand has continued to suffer from excessive monetary inflation, which is why domestic prices, and the number of rands required to buy a dollar, continue to rise. The price of the US dollar has risen faster than South African price inflation, but the rand price of gold has generally matched the rate of price inflation.

Target gold

Had the Reserve Bank tried to maintain the rand-US dollar exchange rate at a fixed level during 1999 and 2000, the rate of inflation in South Africa would probably have turned negative by the end of 2000 – prices would now be falling. Given the monetary excesses of 1999 and the deflationary US monetary policy of 2000, enjoyment of the benefits of falling prices in South Africa would have been overshadowed by the effects of monetary contraction. The US economy has a history of being regulated and taxed less than the South African economy. For this reason, the Americans are better able to carry on in the face of monetary fluctuations. A long-term policy of fixing the value of the rand to the US dollar would probably have proved superior to the policies actually followed, and would have encouraged and made easier other policy improvements. But perhaps there is a better choice of standard.

Suppose that the Reserve Bank had chosen to stabilise (ie fix) the rand gold price during 1999 and 2000. The most obvious result would have been a rate of price inflation averaging zero. South

Africans would have avoided the disruptive effects on their economy of an excessive inflation of rands. In the realm of exchange rates, the rand would have performed at least as well as the dollar-gold price did in fact perform. In proportion to the size of the South African economy within the world economy, the stabilisation of the rand-gold price would have very slightly strengthened the value of gold relative to the dollar. The clear net result of targeting the rand-gold price would have been the successful achievement of domestic price stability, a respectable exchange rate performance, and a strong monetary *foundation for superior economic growth* that would go well beyond the direct accounting benefits to the gold mining industry.

The announcement of a rand-gold price target would have attracted positive domestic and international attention. The subsequent performance would have built up the confidence of residents and investors to levels not experienced in a generation. Worries about the exchange rate could no longer be used in attempts to justify the continuance of exchange controls. Furthermore, the increased standing of South Africa in the capital markets would offer another riskless opportunity to completely eliminate exchange controls – an action that would be helpful in any event.

It is important to note that the stabilisation of the gold price would not require that the rand monetary base be backed by 100-percent gold reserves. The sale of any asset for rand by the Reserve Bank would result in a strengthening of the rand's value relative to all other assets, including gold. This has always been possible. As I described in a February 1997 article in Johannesburg's *Finance Week*, the Reserve Bank had (and still has) plenty of reserves to support a policy of gold-price stability. As a proportion of the total, the gold reserves are quite adequate and are well supported on the Bank's balance sheet by government securities and foreign currency reserves, any portion of which could be quickly sold for rand in the open market. In addition to this, a designated fraction of the interest earned on foreign-exchange reserve holdings could be used over time to bolster the gold, or any other, segment of reserves when deemed necessary.

Then why not gold?

One of the long-term advantages of using gold as the standard of value is that no central bank or government can inflate the total quantity of gold as they can the quantity of a fiat currency. The future supply of newly mined gold will be influenced by the expected price: Higher expected values for gold will encourage exploration and development, which will make higher future production more likely. Similarly the expectation of lower gold values will discourage exploration and investment, particularly in areas where production costs are expected to be high or uncontrollable. This natural process serves to moderate the annual increase in new gold production. Furthermore, whenever the quantity of gold produced is higher than usual, the resulting reduction in the purchasing power of gold would encourage greater consumption of gold for jewellery and other industrial uses. This dampens the inflationary effect of the gold production by removing some gold from monetary uses.

The “normal” scenario would be one of a reasonably stable purchasing power for gold, with trends and slow fluctuations resulting from the generalised effect of economic growth and productivity gains. When there are new unexpected gold discoveries, however, or when there are new breakthroughs in mining technology, the potential supply of gold is increased accordingly – with possibly sharp changes in the value of gold. Although such events are unlikely to occur frequently, it is understandable that many policymakers and stakeholders would fear the possibility of potentially large changes in the quantity of money (gold) beyond their control. This is one of the reasons why in the past I have advocated using currency-quantity rules to control the monetary base of a currently existing fiat money, even though that would delay indefinitely the removal of monetary control from governments.

This understandable fear of periodic natural instability stands in stark contrast to the sentiment of those who fear the opposite – that a link to gold would prevent them from expanding the money supply whenever it suits their political interests. At the risk of tarring with too broad a brush, recognition of this latter sentiment helps explain the decades-old war waged by many governments against gold as a monetary metal. Even the International Monetary Fund, which was originally or-

ganised to protect a form of gold standard, now has the formal effect of discouraging the monetary use of gold. Given current trends, citizens of smaller countries cannot depend on the guardians of the major currencies to leave the market for gold undisturbed by gold auctions from official reserves, as well as sundry regulations and taxes. Although one should avoid overplaying the importance of this effect, the fear of future fluctuations in the gold exchange rates of the major trading currencies reduces the *perceived* net benefit to smaller countries of fixing to gold.

Currency board

A currency board is a type of formal structure for fixing the exchange rates of two currencies. It operates in the same legal manner as a gold standard, except that another currency acts as the base, rather than gold. The currency board would issue an additional unit of local currency only upon receipt of a particular quantity of the base currency. This would normally entail maintaining 100 per cent reserves – the holding of enough base currency to redeem every unit of the local currency. For example, if the currency division of the South African Reserve Bank were converted to a currency board using US dollar backing at an eight-to-one exchange rate, then the Bank would hold one dollar for every eight rand in circulation. A total rand issue of R40 billion would require a monetary base of \$5 billion. Anyone offering rand would receive dollars, and anyone offering dollars would receive rand, all at the fixed exchange rate.

Currency boards originated when the long distances between colonies and their mother countries made the shipment of gold expensive and risky. Rather than expend resources on the physical shipment of gold to settle claims, and to avoid the risk of losing the gold, notes of the imperial currency were used as reserves to back a local currency. Shipment of the banknotes was less expensive than the shipment of gold. Although the imperial currency would itself necessarily remain convertible to gold, the extra layer in the reserve structure reduced the volume of gold conversions necessary for the settlement of claims in the colony. Costs were reduced and the fixed exchange rate facilitated trade between colony and mother country.

A colonial relationship is not essential to the formation of a currency board, despite the possible fears of nationalists that their sovereignty might be diminished by the adoption of another country's currency as their base currency. Of greater importance is the quality of management of the base currency and its acceptability in trade. Before the emergence of fiat currencies, the key factors were the metal content of the coinage and the creditworthiness of the banks of issue – the banks that issued banknotes redeemable in gold or silver. Certainly good quality coins would circulate in countries other than those in which they were minted. Banknotes were less likely to be recognised or trusted but, just as is the case today, notes from better-known countries and banks would enjoy limited circulation in other countries. In the early years of the United States, for example, Spanish coins and French banknotes were common.

Today, dollars circulate to some extent in every country, often being preferred to the local currency. In many of these latter countries, a properly constituted currency board (if politically possible) would build confidence and ensure the future circulation of the local currency. It would also keep the local rates of inflation and interest relatively close to those in the United States. Deviations from the US rates would occur owing to differences in national economic policies and their effects on growth and credit conditions.

In 1973, shortly after its formation as an independent nation, the United Arab Emirates launched its new currency through the creation of a currency board. The currency board function was merged with other regulatory functions to form a central bank, but the UAE dirham has been held to a firmly fixed exchange rate with the US dollar. This prudent practice has undoubtedly helped in the development of the Gulf region.

Hong Kong and Singapore are two other good examples of the beneficial use of currency boards. Despite their lack of oil and other natural resources these two small states have exhibited consistently high economic growth. The stability of their exchange rates and the freedom to trade and do business have made possible the integration of their financial institutions into world capital markets, greatly facilitating their growth as centres of world trade. Argentina has also used a cur-

rency board to good effect, but would enjoy better overall performance with an improvement of its fiscal and regulatory policies.

Dollarisation

In some countries, the prudent management of a currency over time is perceived as being politically impossible. In such cases, where there is reason to lack confidence in the monetary discretion of future governments, the best choice of a present-day government might be simply to allow the free circulation in trade and banking of other currencies. Residents will gradually discover their most acceptable media of exchange, and one or two currencies would probably emerge as the most preferred and widely used. More directly, a government might take a decision to adopt a particular foreign currency, such as the US dollar, to circulate as the local medium of exchange. This occurred, for example, in Liberia and Panama.

A commoner phenomenon is the private adoption of another currency as a defence against the ongoing inflationary mismanagement of the local official currency. The currency of popular choice is usually the US dollar, and the process of increasing dollar usage is called “dollarisation”. This is certainly catching on in Central and South America. In Mexico, it is now common for prices of goods to be advertised in dollars. Ecuador has seen this process go all the way to an official central bank policy of dollarisation. In September 2000, after a six-month transition period during which both dollars and sucres (the former currency) circulated as legal tender at an officially fixed exchange rate, the central bank declared the US dollar to be the new official currency. The Associated Press reported,

“Officials hope the switchover will end record inflation running at 104 percent a year, Latin America’s highest. The step is designed to prevent the government from printing excessive money to meet its budgetary needs. Economists blame Ecuador’s economic woes on decades of deficit spending.” (Cisternas, 2000)

The Ecuadorian government lost the ability to print money for its own spending. This suggests that years of economic and political disruption weakened the government sufficiently that it could not resist the curtailment of its monetary powers. One of the reasons that a government would resist dollarisation is to avoid the loss of seigniorage – the profit that a central bank derives from the creation of money. If people shift toward using dollars rather than local currency, the local central bank will find a smaller user base, and lower demand, for its currency. In effect, it loses its local monopoly of banknote issue, and with that it loses its monopoly profits. New issues of currency would be less well received in that a given number of new units of currency would cause a greater reduction in the currency’s purchasing power than would have been the case in the absence of competition from the dollar. A central bank that found itself incapable of meeting this competition, despite the advantage of government protection, would eventually find itself becoming irrelevant and ignored. People would neither trust nor need what it has to offer. The government would at some point be forced either to take steps to revive the currency or, as happened in Ecuador, to recognise the dollarisation officially.

The only way that a dollarised country could receive any seigniorage associated with its use of the dollar would be in the form of a payment from the American monetary authorities. Although US Treasury officials studied the possibility and usefulness of such payments in 2000, their government rejected the idea, effectively removing it from the agenda for the next few years. Given that the dollar is already in demand around the world, and that the desirability of promoting this is not clear, the United States government sees little incentive to enter into such potentially complicated arrangements. Better to keep it simple, and keep the seigniorage.

When the choice is between high, disruptive inflation of the local currency or the imported services of the better-performing dollar, the loss of local seigniorage is a small price to pay for the benefits. It is not obvious that the value of seigniorage is ever sufficient to justify the resulting effects of inflation. But whenever there is inflation of a fiat currency, someone will gain and spend the seigniorage. All else being equal, it would seem preferable that the seigniorage be kept at home.

The requirement to give it up would provide one more reason for a government to resist and delay any change to a policy of sound money.

Other reasons to maintain the existence of a country's currency would include its link to national sentiment and real considerations of sovereignty over economic policy. This latter point goes well beyond sentiment: Adoption of another country's fiat currency brings with it a dependence on the continued prudence of that other nation's monetary authorities. Any discretion exercised by those authorities will be guided first by consideration of its effects on the conditions within their own country – their own political base. Whether or not those authorities will be successful in their own country is a separate question from whether or not the policy choices will be simultaneously appropriate to the economic conditions, and users of the currency, in other countries. Dollarisation means accepting the monetary policy of the United States Federal Reserve Board. The dollar is likely to become the official currency in countries where the local authorities have given up hope of ever providing a monetary policy better than that of the United States. Most countries have not reached that stage, so they will neither dollarise nor create a currency board – even though they might still benefit from either.

Currency union

When policy makers in certain countries perceive the possibility of mutual gain from expanding their trade relationships, they may also come to recognise the potential benefits from using the same currency. For many of the reasons mentioned above – considerations of national pride, political sovereignty, seigniorage, and policy control – the adoption by one country of another country's currency may be out of the question. In such cases, a new multinational currency can be, and has been, created. The demonstrative example of this is the “euro”, created through the political will of the European Union.

The euro came into existence in January 1999. Monetary policy with respect to the euro is conducted through the European Central Bank, which has board members appointed by the various member-states of the EU. Thus each member-state has the right to make input into the overall policy, and the seigniorage is distributed in a politically acceptable manner, as if dividends to shareholders.

By creating the single currency the EU has eliminated foreign exchange risk on all transactions in which the euro has replaced the former currency of a member state. Although the former national currencies will continue to exist until 2002, their exchange rates are fixed rigidly and unsalvageably to each other. There is no scope for speculative attack on any member state's currency, and there has been none. Furthermore, users of euros have no need to calculate prices in a dozen or more currencies when they trade or travel throughout the continent. At most, those who still think in terms of the national currency will have only one exchange rate to deal with in their calculations: The exchange rate between the euro and the national currency with which they have lived and in which are denominated the prices in their memories. This reduction in the need to exchange, and to calculate, brings significant savings in effort, time, and resources.

The introduction of the euro has created a currency area similar in size to that of the home area of the US dollar. The euro area will grow with the expansion of the EU, and with the adoption of the euro by other countries – either through the euro version of dollarisation (euro-isation?) or through the fixing of exchange rates. As a currency area grows, the benefits of joining it also grow.

Herbert Grubel has made the case for a similar monetary union for North America. He suggests that Canada, the United States, and Mexico combine their currencies to create the “amero”. Once these three countries work out the necessary political arrangements, the amero could be introduced in a manner similar to that followed for the euro, with one side of regional notes retaining the use of national symbols. The result would be a larger currency area with the potential to expand into South America and elsewhere. Obviously dollarised countries would be affected, and would take on a relationship to the amero at least as close as they were to the former dollar.

The amero is unlikely to be on any official agenda for many years. Whether or not it ever comes into existence will be determined by the manner in which various countries attempt to deal

with the costs of fluctuating exchange rates and local monetary discretion. The emergence of alternative policies and practices that capture some of the benefits of a common currency will remove some of the incentive to go all the way. Getting that far would, however, make the next steps that much smaller.

Fixed exchange rates

A gold standard and a currency board are two formalised methods of fixing exchange rates – the first fixing to gold, and the second fixing to another currency. It is, of course, possible to fix exchange rates without the formal structures and the implied requirement to maintain the 100 percent reserves that would enable complete *redemption* of banknotes, whether for gold or another currency, on demand at a fixed price for the base currency. As discussed above, the quantity of local currency in circulation can be altered through the central bank's buying or selling of any asset, such as government securities. This has been, and continues to be, a common central banking practice. What is uncommon nowadays (since the Bretton Woods system unravelled in the early 1970s) is the practice of maintaining truly fixed exchange rates.

As I have described in more detail in *Real Money*, the 1944 Bretton Woods agreement centred on keeping the value of the US dollar fixed to gold and keeping all other participating currencies fixed to the dollar. The system broke down because the United States authorities inflated the dollar and thereby failed to maintain the dollar's value as measured by gold. Some member countries were negligent in maintaining their fixes to the dollar; they inflated faster than the US. But other countries were forced to abandon their own proper practices and inflate their monetary bases in order to maintain their fix with the dollar. It was clear that the dollar was no longer worth the official gold value: The dollar was officially overvalued. It made sense for prudent central banks to redeem dollars to obtain gold from the US Federal Reserve – and that is what they did until the US stopped redemptions in 1971.

Without a stable anchor, and with the dollar no longer redeemable in gold, other countries were forced to go their own ways. The break-up was followed by two decades of worldwide price inflation, with differing rates across countries, but notably including the United States. The monetary inflations and volatile exchange rates became associated with economic stagnation. However, it should be emphasised that monetary factors were not the sole cause of the economic weakness: The 1970s were years when few questioned the heavy regulation, high tax rates, and disruptive government spending that hindered rational activity and promoted the waste of hard-earned resources.

There was nothing essentially wrong with the idea of maintaining an international monetary system of fixed exchange rates – and certainly nothing wrong with anchoring the system to gold. What went wrong included failure of leadership, failure to keep promises, and failure fully to understand the consequences of monetary indiscipline. The authorities tried to do too many things at once and failed to maintain the one thing on which their policies depended. Then, without a reliable anchor, and forgetting that gold was still available for the job, central bankers acquiesced to the apparently attractive liberalism of flexible exchange rates. But they then failed to allow true flexibility and instead continued to manipulate exchange rates while also attempting to manage interest rates, employment levels, economic growth, and domestic price inflation. They felt responsible for everything, and did nothing well.

When, for whatever reason, a policy of fixed exchange rates is out of the question, then truly flexible exchange rates are the next best alternative. Anything in between lacks discipline and is more likely to be disruptive than prudent. When the word “peg” is used, it implies something much less solid than a “fix”. This leaves doubts in the minds of investors as to the resolve of the authorities to maintain the exchange rate. It also attracts the attention of speculators who may periodically perceive a ripening of conditions for exchange rate movement and act accordingly. A “crawling peg”, which the IMF has urged upon countries such as Turkey, is a wandering standard that invites trouble. Any country that “needs” a crawling peg is unlikely to be suited to manage one. As recently as 1994-95, Turkey had suffered price inflation as high as 120%. The central bank was gradually bringing the inflation rate down (to 39% in 2000) toward targets in the low double digits, but clear-

ly the exchange-rate pegs were out of line with the inflation reality. In February 2001, Turkey's crawling-peg programme gave way to a sudden 35% devaluation of the lira – handing currency speculators larger-than-expected gains while more-trusting investors (including banks) suffered huge foreign exchange losses. Any regime is susceptible to mismanagement, but a crawling peg is far more susceptible than is a clear fix.

A relatively stable standard

A currency with a large market will almost certainly be more stable than a similarly managed currency with a much smaller market. A third currency, for which an anchor is sought, would find greater benefit in terms of stability by being fixed to the larger currency rather than the smaller one. A fix to any other currency (such as the dollar) requires a positive judgement about the future management of that base currency (dollar). People will naturally tend to make some direct use of the currency favoured by other people with whom they have significant trade. Thus the monetary authorities of a country in which the people conduct more international trade with dollars than with euros will be more likely to choose the dollar as a monetary standard. Similarly we can expect countries with stronger European trade ties, such those of North and Central Africa, to prefer the euro as a standard. These countries will find greater benefit in associating with the pan-European euro than they would, for example, with the French franc.

As asserted above, the best alternative to a fixed exchange rate is a completely flexible rate. But flexibility is not a standard in itself, and does not imply freedom from standards. In the absence of fixing, there must be some other defensible criterion by which to judge policy actions. I have often recommended the adoption of a simple and conservative rule by which to guide the growth of the monetary base. Others have recommended setting targets for variables such as interest rates, or national income, or price-inflation rates. Not all standards of action are equal nor does any one standard perform best under all conditions, but there must be a standard.

4 An index standard

Each of the methods of monetary control discussed above has advantages and disadvantages. The monetary authorities responsible for developing and implementing policy, must weigh the perceived benefits and limitations

- a **Inflation targeting** focuses on the rate of increase of the price level, but suffers from the difficulties of forecasting inflation and from the time lags between action and effect. Except to the extent that it succeeds in controlling inflation, it does not promote integration with world capital markets, nor does it eliminate exchange-rate risk.
- b A **monetary base growth rule**, by simplifying central-bank processes and eliminating policy uncertainty, gives a clearer basis on which to predict the effects of economic growth on prices and interest rates. It also reduces the likelihood of policy-induced industrial fluctuations. Although such a policy would make monetary conditions more appealing to international investors and traders, it does not directly promote integration with world capital markets, nor does it eliminate exchange-rate risk.
- c A **gold standard** would fix the currency to a numeraire (unit of account) that is naturally integrated with commodity markets, grudgingly respected by central banks, and well-tested historically – although the history is subject to varying interpretations. The purchasing power of gold has been quite stable over time despite occasional fluctuations when gold supply and demand conditions were affected by new discoveries or by government policies. Adoption of a gold standard by any country would tend to give the value of gold greater stability, but exchange-rate risk with other currencies would remain. To the extent that gold is used in international capital markets, integration with those markets would be promoted. Such integration would be greater than it is with present flexible exchange rates, but would not approach its potential until the US or another major-currency bloc were itself to adopt a gold standard.
- d Using a **currency board** to adopt a major currency as the standard would eliminate exchange-rate risk with that base currency. It would also allow greater integration with the capital markets denominated in that base currency. Inflation and interest rates would also be harmonised with those of the base-currency bloc. This approach implies a trust in the (necessarily foreign) management of the base currency, which could be managed using any of the above methods – or some other method.
- e A policy of **fixed exchange rates** allows a less formally structured approach to linking one currency to another. Such an approach can also be used to fix to gold. To the extent that the management is competent and able to earn trust, the currency will gain recognition and acceptance within the currency bloc to which it is linked. This eliminates exchange-rate risk and opens the way to capital market integration.

From the above menu – with some additional detail, of course – it is possible to develop an adequate, well-functioning monetary policy. The next question is “Can we do better?” For many countries a steady, independent course for monetary policy seems to be unsustainable, whether for internal political reasons or due to an inability to reconcile internal actions with international trends. Even the European Central Bank has had to recognise the limited tolerance that its stakeholders have for depreciation of the euro against the dollar – although internal monetary conditions (inflation and interest rates) may seem acceptable. Those in smaller currency areas must be even more sensitive to the direction and variability of their exchange rates; a perception of chronic weakness reduces capital market opportunities and trade flexibility.

As discussed above, certain currencies will naturally attract users around the world or regionally. The US dollar, being the premier currency of international trade, is also the number-one candidate for use as a benchmark, or currency standard. The creation of the euro has introduced what will be a strong number-two medium of international exchange and benchmark currency. The Japanese yen has strong regional status, but the Japanese have frittered away their international reputation by allowing their government to subject them to many years of amazingly foolish economic policies. Until this trend changes, the yen will not be a good candidate as benchmark currency.

A proposed index standard

Rather than depending on the continued favourable performance of any single benchmark currency, there might be significant benefit from diversifying to create a hybrid standard to which the local currency may be fixed. In the extreme, this might mean creating a “basket” of many currencies or commodities or both. But that would lead to over-diversification, which would be less transparent, more difficult to monitor, and less easily justified. Besides, there aren’t very many suitably-managed currencies. A more defensible course would be to choose two or three components, each of which is well-recognised and could be justified as a benchmark in itself. To serve in this role, I would suggest an index of the US dollar, the euro, and a specified weight of gold.

The actual proportions chosen for each component in the index are less important than that each component should have some significant representation, and that the local currency should be truly fixed, on a daily basis, to the chosen index. Each component could be weighted according to the desirability of its price behaviour, or by the amount of trade conducted in that currency either by residents of the country or by the whole world. For demonstration purposes, a good defensible index could consist of dollar, euro, and gold in the initial proportion of 40:40:20. Thus, the value of the local currency would be heavily tied to each of the top two currencies while also having a significant tie to the world’s best numeraire.

Calculating the index

A simple way to visualise the index is to use a value of R10 000 such that *on the first day* R4000 equals \$500, R4000 equals 570 euros, and R2000 equals one ounce of gold. (This example assumes that, on the inaugural day, observed exchange rates would be \$1 = **R8**; 1 euro = **R7.0176**; 1 oz gold = **R2000** = \$250. The equivalent values actually to be used would depend on the exchange rates at that time.) These *component* equivalents are for the first day only. After that, the values of each component will be free to change, but the *total* will remain fixed. Thus, in this example, the value of the South African rand would be defined such that

$$\mathbf{R10\ 000 = \$500 + 570\ euros + 1\ oz\ gold.}$$

In the regular calculation of the value of the rand for monetary policy purposes, the Reserve Bank would use the following simple formula.

$$\mathbf{X - R10\ 000 = Z.}$$

Where

$$\mathbf{X = \$500\ (R/\$ \text{ exchange rate}) + 570\ euros\ (R/euro \text{ exchange rate}) + rand\ per\ 1\ oz\ gold.}$$

When **Z equals zero**, the monetary policy is exactly on target.

When **Z is greater than zero**, the rand is over-inflated. The Reserve Bank would then buy rand in the open market, thereby reducing the quantity of rand in circulation.

When **Z is less than zero**, the rand is under-inflated. The Reserve Bank would then sell rand in the open market, thereby increasing the quantity of rand in circulation.

For practical purposes, the Reserve Bank would take action only when the value of **Z** moves outside a narrow trading range of, say, one half percent each way. Thus, the Bank would not need to act on every little movement of the index, but only when it moves outside the range between **Z = - 50** and **Z = 50**.

This does not necessarily imply that the Reserve Bank itself would be required actually to redeem rand for this exact mixture of dollars, euros, and gold. Such a formal structure could be created, and might be preferred, but is not necessary. It would be sufficient for the Reserve Bank to employ some direct method to adjust the monetary base sufficiently to keep the rand in a tight range around the index value. Thus, as noted above, the Bank could continue to buy and sell government securities for this purpose – at its own discretion. The only requirement is that it keeps **Z** within a narrow band close to zero.

Benefits and limitations

It must be emphasised that fixing the rand to the *index* implies not fixing it to *any one of the components*. Unless the dollar and euro are fixed to gold, the rand will continue to have flexible exchange rates with respect to each of the three. The rand would be fixed only to the weighted average; it would not be directly integrated with any one of the three components. That is a disadvantage, but the rand is not integrated to any of the components now. Fixing to the index would bring the new advantage of greater stability for the rand with respect to the dollar, euro, and gold than could be consistently achieved through inflation targeting or by fixing to any one of the components. For example, the rand would be more stable with respect to the dollar and gold than would be the euro. It would also be more stable with respect to the euro and gold than would be the dollar.

Another notable benefit of fixing to this index is that South Africa would enjoy a level of price inflation that is an average of the levels achievable by fixing individually to the components. The same would be achieved for interest rates. This would be a great improvement over past performance. Traders and investors would be able to make far more reliable predictions not only about the rand exchange rate, but also about general economic conditions in South Africa. Savings in terms of reduced transaction costs and reduced uncertainty would bring increased confidence and a boon to the economy.

Good monetary management is not the only necessary ingredient for a prosperous economy and harmonious social environment. A rational set of fiscal, regulatory, and social policies is also vital. A weakness in any one of these areas of policy weakens the whole. As a part of this vital set, a sound currency is relatively easy to define and to achieve. It should also be easy to find wide agreement that a sound currency is necessary to the full and free participation of people in the natural social interactions of production and trade – of making a living.

Fixing the value of the rand to an index of the dollar, euro, and gold – as proposed above – would free people from many of the distracting worries associated with the current instability of the rand. With the dollar and euro, the rand would be linked to the two major world currencies. The benefits of this are well recognised. With gold, the rand would be linked to the world's best numeraire with which we can calculate relative values over time. Gold was the last naturally selected currency, and remains a very special, but representative, commodity. Gold is also easily, and positively, associated with South Africa as well as with liberty and humane empowerment.

References

- Bordo, Michael (1999) *The Gold Standard and Related Regimes*, Cambridge University Press, Cambridge.
- Cisternas, Carlos (2000) "US Dollars Replace Ecuador Currency", Associated Press.
- Grant, Richard J (1989) *Stopping Inflation and Lowering Interest Rates*, Briefing Paper No.2, Free Market Foundation, Johannesburg.
- _____ (1999) *Real Money*, Free Market Foundation, Johannesburg.
- Gros, Daniel and Thygesen, Niels (1998) *European Monetary Integration* (2nd Ed), Harlow, Pearson Education Limited, UK.
- Grubel, Herbert (1999) *The Case for the Amero: The Economics and Politics of a North American Monetary Union*, The Fraser Institute, Vancouver.
- Jordan, Jerry L (2001) *Money, Central Banking and Monetary Policy in the Global Financial Arena*, FMF Monograph No.27, Free Market Foundation, Johannesburg.
- Mishkin, Frederic S (2000) "Inflation Targeting in Emerging-Market Countries", *American Economic Review*, Vol.90 No.2 pp.105-109.
- Mundell, Robert A (1961) "A Theory of Optimal Currency Areas", *American Economic Review*, Vol.51 No.4 pp.657-65.
- _____ (2000) "Currency Areas, Exchange Rate Systems and International Monetary Reform", Paper delivered at Universidad del CEMA, Buenos Aires, Argentina, 17 April 2000.
- _____ (2000) "A Reconsideration of the Twentieth Century", *American Economic Review*, Vol.90 No.3 pp.327-40.
- Reisman, George (1998) *Capitalism*, Jameson Books, Ottawa, IL.
- Salin, Pascal (1990) *La Vérité sur la monnaie*, Éditions Odile Jacob, Paris.
- Taylor, John B (1999) *Monetary Policy Rules*, University of Chicago Press, Chicago.
- Walters, Alan (1987) "Currency Boards", *The New Palgrave: A Dictionary of Economics*, Macmillan Reference Ltd, London.
- Woodford, Michael (2000) "Pitfalls of Forward-Looking Monetary Policy", *American Economic Review*, Vol.90 No.2 pp.100-104.