

# THE ECOLOGY OF MONEY

by Richard Douthwaite

## Chapter 4: One Country, Four Currencies

Now we've surveyed the various types of money system, we come to the exciting bit - specifying the integrated multi-currency system of the future. We have seen that three groups (commercial institutions, governments and users) can create money. Very little can be said in favour of allowing the commercial creation of money to continue. Instead, money should be created by non-profit-seeking organisations representing the people using it. In the case of a democratic country, this would obviously include a national or regional government working on behalf of its people.

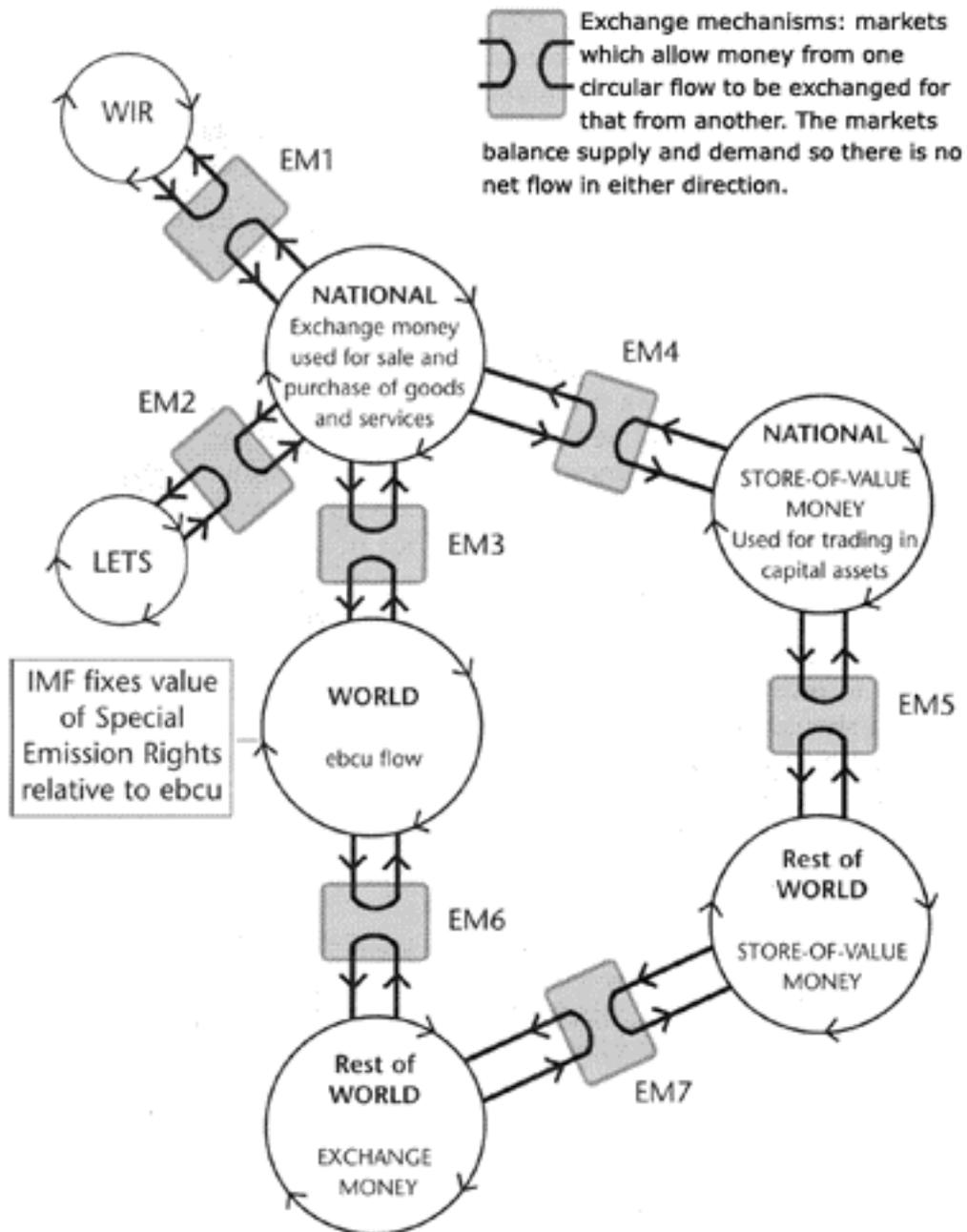
At least four types of money are needed. One is an international currency, playing the role taken by gold before the collapse of the gold exchange standard. The second is a national or regional (sub-national) currency that would relate to the international currency in some way. Thirdly, we would need a plethora of currencies which, like LETS, the WIR and the commodity-based currencies, could be created at will by their users to mobilise resources left untapped by national or regional systems. Many of these user currencies would confine their activities to particular geographic areas, but some would link non-spatially-based communities of interest. And fourth, as our current money's store of value function can so easily conflict with its use as a means of exchange, special currencies are needed for people wishing to see their savings hold their value while still keeping them in a fairly liquid form.

### **An international currency, the ebcu**

The dollar, the pound sterling, the franc, the German and Swiss marks and the yen are all 'reserve currencies'. In other words, central banks keep their reserves in these currencies in case they have to intervene in the markets to support the exchange rates of their own currency. A country operating a reserve currency has an enormous advantage because other countries willingly sell it their goods and services but don't use a lot of the money they receive to buy its goods and services in exchange. Instead, they leave the money sitting in their central banks. Holders aren't even paid interest by the country that issued the currency.

In addition, reserve currencies are used as world money. For instance commercial banks in Europe will accept deposits of dollars and lend them out to other customers who, rather than using them for purchases in the US, frequently pay suppliers in third countries instead. This enables the dollars to circulate without ever returning to a US bank. Such dollars are known as Euro-dollars, but Euro-versions of the pound, the Deutschmark (D-mark), the Swiss franc and the yen also exist. On a more basic level, people use reserve currencies for day-to-day transactions in countries experiencing high rates of inflation and often keep foreign notes as a standby.

## Proposed world currency system



*For an explanation of the various exchange mechanisms, see Appendix 1.*

At the end of 1998, 57% of the world's foreign exchange reserves were held in dollars, around three times the amount held in ecus, D-marks, French francs and sterling combined. This means

that, over the years, the US has received billions of dollars worth of imports and given nothing in return apart from paper notes and electronic credits. Its earnings from seigniorage have been massive: in 1999 alone, its trade deficit was expected to be \$230 billion although not all of this was seigniorage, of course. An important reason for the launch of the Euro was that it stands an excellent chance of displacing the dollar as the world's preferred reserve currency and thus earning for the EU a much bigger share of the seigniorage gains.

Allowing the world's rich countries to profit from poorer ones in this way is obviously wrong. Moreover it flies in the face of the principle that we've just established, namely that money should be created and its supply controlled by its users and not, as in this case, nations making huge profits for themselves.

### **Which scarce resource?**

Chapter One argued that every economic system should establish the scarce resource whose use it seeks to minimise, and then adjust its systems and technologies to bring the least-use solution about. Since people always try to minimise their use of money, an international currency should be based on the global resource whose use it is highly desirable to minimise. If that link was made, anyone minimising their use of money would automatically minimise their use of the scarce resource.

If we accept that view (and not everyone does), what resources do we need to use less of? Certainly not labour or capital goods. There is worldwide unemployment and, in comparison with a century ago, our capital stock is huge and underused. But the natural environment is grossly overused, particularly as a dump for our pollutants. In particular, the Intergovernmental Panel on Climate Change (IPCC) believes that 60-80% cuts in emissions of greenhouse gas pollutants which are produced largely a result of fossil fuel use, are urgently needed to lessen the risk of a runaway global warming. This is one of humankind's most serious problems, and I therefore believe that the base of the world currency should be selected accordingly.

But how can a link between a currency and lower fossil fuel use be made? If the currency we have in mind were linked to a unit of energy, that would effectively encourage more energy production throughout the world. We want to achieve quite the reverse and to link our monetary unit to something that discourages fossil fuel use even when there is pressure an expansion of the amount of money in circulation.

How can this be done? Contraction and Convergence (C&C) ) is a plan for reducing greenhouse gas emissions developed by the Global Commons Institute in London that, by early 1999, had gained the support of the majority of the world's nations. Under the C&C approach, the international community agrees how much the CO<sub>2</sub> level in the atmosphere can be allowed to rise. There is considerable uncertainty over this. The EU considers a doubling from pre-industrial levels to around 550 parts per million (ppm) might be safe while Bert Bolin, the former chairman of the IPCC has suggested that 450 ppm should be considered the absolute upper limit. Even the present level of roughly 360ppm may prove too high though, because of the time lag between a rise in concentration and the climate changes it brings about. Indeed, in view of the lag, it is

worrying that so many harmful effects of warming such as dryer summers, rougher seas and more frequent storms have already appeared.

Whatever CO<sub>2</sub> concentration target is ultimately chosen automatically sets the number of years within which the world must reduce its present emissions by whatever amount is necessary to bring them into line with the Earth's capacity to absorb the gas. So, if a decision to cut emissions by a fixed proportion each year is made, a maximum level of CO<sub>2</sub> emissions for the world for each year for at least the next fifty years can be calculated.

Once the annual global limits have been set, the right to burn whatever amount of fuel has been fixed for each year would be shared out among the nations of the world on the basis of their population in a certain base year. In the early stages of the contraction process, some nations would find themselves consuming less than their allocation, and others more so it is proposed that under-consumers should have the right to sell their surplus to more energy-intensive lands. This is a key feature of the scheme as it would generate an income for some of the poorest countries in the world and give them an incentive to continue following a low-energy development path. Eventually, it is likely that most countries will converge on similar levels of fossil energy use per head.

But what currency are the over-consuming nations going to use to buy extra CO<sub>2</sub> emission permits? If they used their reserve currencies, they would effectively get the right to use a lot of their extra energy for free. This is because much of the money they paid would be used as an exchange currency, around the world rather than being used to purchase goods from the country that issued it. To avoid this, GCI has devised a plan under which an international organisation such as the International Monetary Fund (IMF) would assign Special Emission Rights (SERs), the right to emit a specified amount of greenhouse gases and hence to burn fossil fuel, to national governments every month according to the C&C formula.

### **Energy coupons**

SERs would essentially be ration coupons, to be handed over to fossil-fuel production companies in addition to cash by big users such as electricity companies, and by fuel distributors such as oil and coal merchants. An international inspectorate would monitor producers to ensure that their sales did not exceed the number of SERs they received. This would be surprisingly easy as nearly 80% of the fossil carbon that ends up as man-made CO<sub>2</sub> in the earth's atmosphere comes from only 122 producers of carbon-based fuels.<sup>29</sup> The used SER coupons would then be destroyed.

A considerable amount of work has already been done towards the development of an international trading system in CO<sub>2</sub> emission rights, both at a theoretical level and in practice in the US. There, trading in permits entitling the bearer to emit sulphur dioxide into the atmosphere has led to a rapid reduction in discharges at the lowest possible cost. The Futures Exchange in Sydney, Australia, is planning to start trading in the CO<sub>2</sub> that projects have saved in mid-2000.

David Fleming, an independent economist living in London, has been working out how the SERs

would operate at a national level. He envisages that perhaps 45% of each country's allocation would be shared out equally among its population in the form of 'domestic tradable quotas' (DTQs). These would have to be surrendered in addition to cash whenever people purchased electricity or fuel. In advanced countries, people could have their DTQs paid into accounts similar to those for their credit and debit cards. The accounts would be topped-up each month. All forms of fuel and energy, including renewables, would be rated for their emissions of global warming gases. When people bought them they would use paper tokens, or their special debit card, to pay over DTQ units in line with those ratings. People who were able to stay within their allocation would be able to sell their surplus units, while those who needed to buy more would be able to do so through a bank or post office, exactly as with foreign currencies.

The remaining 55% of the national allowance would be auctioned to all other users, such as industry, institutions and the government itself, and the revenue used to finance an emergency renewable energy development and conservation programme. The system would not only set a ten-year rolling timetable for deep reductions in fossil fuel use, but also guarantee that it was achieved.

Besides the SERs, the IMF would issue governments with energy-backed currency units (ebcus) on the same per capita basis, and hold itself ready to supply additional SERs to whoever presented it with a specific amount of ebcus. This would fix the value of the ebcu in relation to a certain amount of greenhouse emissions, and subsequently to the use of fossil energy.

The ebcu issue would be a once off, to get the system started. If a government actually used ebcus to buy additional SERs from the IMF in order to be able to buy more fossil energy, the number of ebcus in circulation internationally would not be increased to make up for the loss. Instead, the ebcus paid over would simply be cancelled and the world would have to manage with less ebcus in circulation. In other words, the IMF's obligation to supply additional SERs would be strictly limited by the amount of ebcus it put into circulation. There would be no open-ended commitment.

Governments would not have to distribute all their allocation of SERs to their citizens, or auction them to major energy users. They would also have the option of selling them to other governments for ebcus. The price set by these sales would establish the exchange rate of their national exchange currencies (see Section 2 below) in terms of ebcus, and thus in terms of other national exchange currencies. This is because if the price that large-scale energy users were prepared to pay at auction for a 1000-tonne SER was, say, £10,000 and the government could sell that SER on the world market for 500 ebcu, each ebcu would be worth £20. This would set the prices for imports and exports as these would also be paid for in ebcus.

### **Controlling energy rather than credit**

Under this system, countries would control their economies by adjusting the energy supply rather than the credit supply as they do today. Suppose a government sold more of this month's SER allocation on the world market than it did of last month's. This would increase the supply of ebcus being exchanged for national exchange currency, thus tending to make imports cheaper

and exports more expensive. Within the country itself, however, output would drop as, with less energy available, the ability of people to produce would fall. Since there would be a fixed amount of the exchange currency in circulation, the price of the reduced output would be pushed up, and people would switch to buying more of the now-cheaper imports. The higher domestic prices would allow the big energy purchasers to bid more at the next SER auction, thus offering the government a better price than it could obtain from international buyers and encouraging it not to sell as much abroad the following month. The increased demand for imports and the lower level of exports because of the higher domestic prices would also tend to devalue the national exchange currency in terms of the ebcu. In other words, both feedbacks would be negative, tending to restore the system to balance. Similarly, if the government decided to buy extra SERs, the purchases would mean that there would be fewer ebcus available for normal trade, with the result that the price of the remainder would rise in terms of the national exchange currency. This would encourage exports and deter imports until the balance was restored.

The result would be much the same if a country put so much of its exchange currency into circulation that the economy expanded faster than the rate at which it became more energy-efficient, causing the demand for fossil energy to rise. This increased demand would allow energy companies to increase their prices, thus causing inflation that (by making exporting more difficult and encouraging imports), would cut the level of economic activity in the country and thus its level of energy use. In other words, national economies could only expand at the rate they became more fossil-energy efficient, which is just what we want. And, for the first time since the gold exchange standard was abandoned, both the international and the national currency would represent something real, although the latter's value in terms of the former would not, as we have seen, be fixed. The system would be nicely self-balancing and would cause inflation whenever it operated.

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### **Box 5: The end of the two Gold Standards**

The gold standard worked reasonably well up to 1914 but was cast aside by all the major combatants except the US during the First World War. It proved impossible to restore during the 1920s and 30s, although great efforts were made to do so. Churchill, for example, insisted in 1925 that Britain should restore convertibility between the pound sterling and gold at the pre-war level of 123.3 grains of gold at eleven-twelfths fine to £1. This required the British price level to be cut by between 10-15% if export competitiveness was to be maintained. The attempt to deflate by this amount caused the General Strike in 1926 and massive unemployment. Keynes wrote later of: "the disastrous inefficiency which the international gold standard has worked since its restoration five years ago, and the economic losses, second only to those of a great war, which it has brought upon the world." Even the US was forced off the gold standard in 1933.

After the Second World War, the non-communist industrialised nations adopted the gold exchange standard rather than the gold standard. Under this, they fixed their exchange rates in relation to the US dollar, which itself was fixed in terms of gold. However, the US, as the world's banker, did what many goldsmiths had done previously and failed to observe a sufficiently cautious ratio between the number of dollars it allowed its commercial banks to put into circulation and its reserves of gold. Confidence in the ability of the US to maintain the fixed exchange rate between the dollar and gold was finally destroyed by the surge of money that went into circulation in the US to cover the costs of fighting the Vietnam war. All

around the world, holders of dollars rushed to convert them to gold.

On August 15th, 1971, President Nixon cracked. He took the US off the gold standard and removed the last fixed link between the world's money and anything real. As a result ever since the value of every currency has been based on nothing but confidence and has fluctuated in response to the whims of the market to an unprecedented extent. The monetary world was left with no foundation, no fixed point, "a floating non-system" as the then German Chancellor called it.

Since then, central banks have been forced to adjust interest rates and the amount of money in circulation in their domestic economies on the basis of how those economies are perceived internationally rather than the volume of trade going on. The markets' confidence has to be maintained. This obviously severely damages their currencies' ability to serve as a satisfactory medium of exchange.

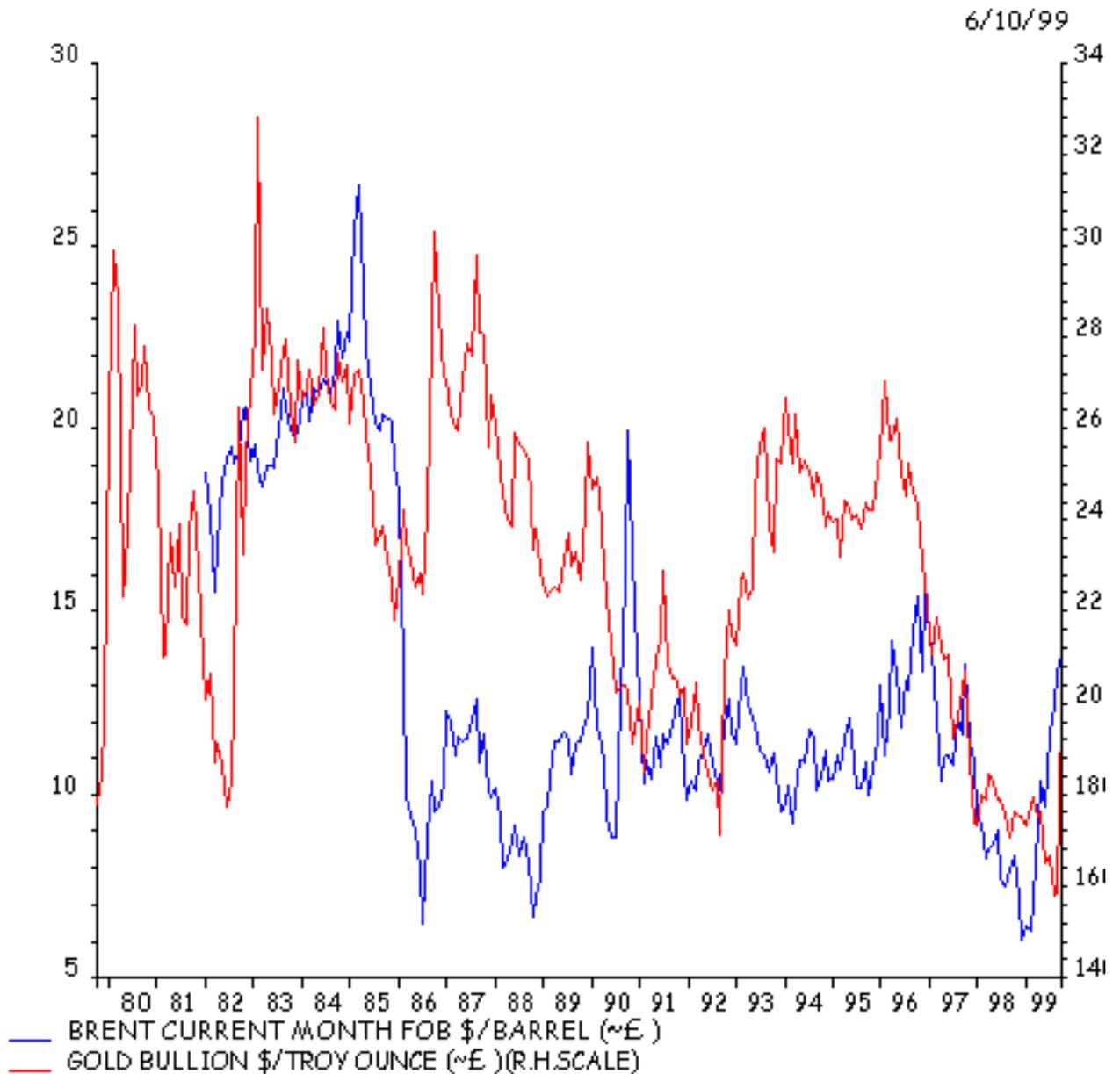
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There is a possibility that, if world energy efficiency could not be increased as fast as the monthly supply of SERs was reduced, the price of an SER would rise in terms of ebcus until it reached the price at which the IMF was prepared to sell additional SERs. If such sales were made and the ebcus involved withdrawn from global circulation, the world's money stock would be reduced. This would cut the amount of trading it was possible to carry on and, as a result, the level of fossil energy consumption would fall as well.

Essentially, the proposed system is a version of the gold exchange standard (see Box 5) in which the right to burn fossil energy has replaced the yellow metal, and where ebcus play the role of the US dollar. This might lead traditionalists to suggest that the world should go back to the real gold standard rather than an ersatz one but, apart from the aura surrounding the metal, it is hard to see why it should. The following arguments all stand against it:

1. Expending energy and effort on mining the metal would be as wasteful as making Yap stones.
2. The supply, and therefore the value of gold in terms of all other commodities, is liable to fluctuate unpredictably because new techniques and new mines can increase its availability at any time. The recent development of heap leaching made gold less costly to extract.
3. Gold production is mainly concentrated in seven countries, South Africa, Russia, Indonesia, China, Uzbekistan, Brazil and Peru. Thus, remonetarising gold would chiefly benefit these countries rather than, as in the case of the ebcu, the whole of the non-industrial world.
4. A return to gold would do nothing to make the distribution of global income any less unfair. It would also do nothing to protect the global environment. Indeed, it would increase pressures on the natural world as gold mining causes serious environmental damage.

## A floating non-system



Source: DATA STREAM

*Since the fixed link between the dollar and gold was cut in 1971, the value of the dollar has fluctuated widely in terms of the amount of gold and oil it could buy.*

### 1. National and regional exchange currencies.

The function of these currencies would be solely as a means of exchange. They would not attempt to be a unit of account or a store of value. The unit of account function would be filled

by the ebcu and businesses would convert the balances from their books kept in their national exchange currencies, into ebcus at the end of each accounting period. Turnover and profits or losses would therefore be comparable across national borders.

As discussed in the last chapter, exchange currencies would be created by each country's central bank and spent into circulation by the regional or national governments' spending departments such as education, health and social welfare.. If this spending was excessive, or some other factor caused the national economy to inflate, there would be no means of withdrawing the excess currency from circulation to damp things down apart from increasing tax rates and/or cutting government spending so as to run a budget surplus. This is because governments would no longer permit open market operations (the buying and selling of bonds currently carried out by central banks) to control the amount of money in circulation.

There are several reasons for wanting such a ban. One is that an exchange currency is not the right vehicle for bonds, or other long-term savings, which would be kept in a store-of-value currency (see Section 3 below) instead. The only loans in the exchange currency that would be permitted would be to cope with short-term imbalances between receipts and expenditure. These might be limited to less than a year. Banning open market operations would also allow the interest rates on savings in the store-of-value currency to be determined solely by the supply of funds, and the risk and potential return of the projects proposed at the time. In other words, the allocative function of interest would work properly as the capital market would not be constantly blown hither and thither by control-of-money-supply considerations.

### **The benefits of inflation**

Under the new system of issuing exchange money, many central banks would be happy to allow low levels of inflation to occur. This is because, as currency managers, they would see their primary job as ensuring that enough national exchange currency was always available to create easy trading conditions. Because another currency was providing the store of value, they would not be overly concerned about preserving the purchasing power of their currency provided that it was not inflating so rapidly that it was becoming less acceptable in the market place. Moreover, they would welcome the seigniorage that inflation enabled them to earn. And, if an inflation did occur, most governments, rather than raising taxes to stop it, would probably allow prices to rise until the cash value of the trading going on was right for the total amount of exchange money in circulation.

We have already seen that an inflation would occur whenever the fossil energy supply was brought into balance with the exchange currency supply, and hence with the level of trading. Such an inflation, provided it was not excessive, has advantages besides providing the state with revenue from seigniorage. One is that it ensures that there is a cost to holding money so that people spend it sooner rather than later, just as they did when bracteates were liable to lose their value overnight. Many readers might be unhappy about this. They will feel that designing a monetary system that deliberately sets out to encourage people to spend is wrong. Under the present system, they know that their spending has an impact on the environment and they feel under a moral obligation to make their personal impact on the planet as light as possible.

Under the new system, however, the most damaging human environmental impact will be reduced automatically year by year, no matter how much spending goes on. Indeed, it will only be by spending on such things as human labour that we will be able to maximise the benefits we obtain from annually reducing the amount of fossil energy burnt. The German currency reformer, Silvio Gesell, saw the damage that the failure to spend money promptly did in the 1920s and 30s and argued that demurrage should be charged to users who delay money. He drew a parallel with the ship owners and railway companies who charge a demurrage fee if a ship or a wagon is delayed by the user's failure to load or unload in the agreed time. Under the current proposals, inflation is used as a handy way to collect such a fee. although there is a side-effect from doing so. A proper demurrage scheme would not affect the price level, while an inflation obviously does.

Another benefit from a mild inflation is that it allows prices to change in relation to each other almost painlessly. For example, it allows firms to make creeping adjustments to wage differentials. This means that workers with skills in short supply can have their real wages raised gradually while those in a declining area of business, people who would never agree to take less money in cash terms, can be given increases of less than the inflation rate. This process signals to the workers in the declining sector that they should seek better-paid jobs and enables the sector to shrink gracefully as its workforce gradually moves to expanding areas of the economy. The lower real wages also allow the declining sector to survive longer. In short, inflation provides a near-painless adjustment mechanism that is going to be almost essential if the massive changes required to enable economies to become sustainable are to be carried out rapidly without causing bankruptcies and labour unrest.

### **Smaller might be better**

Except in the tiniest countries, regional (sub-national) exchange currencies might be better than national ones in meeting users' needs. A drawback that can arise with a national exchange currency and which is almost inevitable with an international currency such as the Euro is that if a major crisis (such as the collapse of an important industry) takes place in one region of a country and leaves other regions where the industry was absent unaffected, it is very difficult to attract or grow replacement industries to the affected region. That is, unless its price levels drop, in particular, its labour costs. The price levels that need to fall were, of course, set before the industry collapsed but are now too high to make the depressed area the most profitable location for a new, or expanding, business. Moreover, the newly-unemployed in that region will fight against accepting lower wages to "price themselves back into work" because many will have mortgages or other financial commitments based on their present wages. Consequently, it could be years before the region is able to restore its competitiveness in relation to the rest of the country (or, with the Euro, the rest of Europe) and for its unemployment to begin to fall. Great social distress could arise.

Sub-national exchange currencies would overcome this problem because the fact that the region was exporting less, and importing more, after the industry collapsed would mean that its exchange rate would fall in relation to the ebcu, and thus in relation to the currencies used in the

rest of the country. This would restore its competitiveness in a matter of months. If regional currencies had been in operation in Britain in the 1980s when London boomed while the North of England's economy suffered after the closure of its coal mines and most of its heavy industries, then the North-South gap which developed might have been prevented. The North of England pound could have been allowed to fall in value compared with the London one, saving many of the businesses that were forced to close.

One final point. The market should solely determine the value of national and regional exchange currencies in relation to the ebcu. Central banks should not maintain ebcu and foreign currency reserves for supporting their currencies. Speculators ought to be able to moderate the rate of change of the currencies and prevent them overshooting their new values at least as well as any central bank. In addition, leaving the determination of relative exchange rates strictly to the market would make the establishment of regional currencies a much simpler process as there would be very little financial infrastructure to put in place.

## **2. User-controlled exchange currencies**

Currencies created by users themselves only develop in circumstances in which the national currency is proving inadequate. We already discussed how, the WIR was set up in the currency crisis of the 1930s and how LETS systems are founded by people who have both wants that they would like to fill, and time or other resources for which they cannot find a market in the mainstream economy. In the same way, businesses list their goods and services with barter organisations if they cannot sell them for regular cash. Usually these supplementary currencies are counter-cyclical. They boom when the national economy is depressed, and shrink when it is buoyant.

At this point in the first draft of this paper I wrote: "Countries setting up regional exchange currencies on the lines discussed in the preceding section will not provide a fertile climate for supplementary currencies with a predominantly economic purpose. The regular currency will work too well. On the other hand, supplementary currencies which are primarily social such as Time Dollars will have an important role to play in areas with mobile populations." On reflection I'm not sure that this is true. The level of activity in the national economy will depend on the amount of fossil fuel available and the efficiency with which it is used. By contrast, the level of activity in the local economy will depend more on human and renewable energies, and on the availability of local resources. If this is correct, there will be a need for local exchange currencies too and it will be interesting to see how the balance between local and national ones works out.

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### **Box 6: A low-cost way to start a regional currency**

The Roma currency system was invented by Gerry McGarry, an Irish engineer, cinema owner and social activist, to encourage the businesses in his area to do more trade among themselves and to raise money

for local charities. The first notes went into circulation in a small Irish town, Ballyhaunis, in 1999 and were withdrawn as planned two months later. The experiment raised &#pound;1,500 for good causes.

Although Romas can serve as a short-term currency to raise money for a community cause, their potential is far greater as a low-cost, low-risk way of developing a system equivalent to the WIR. They work as follows, members of voluntary organisations approach businesses in their area asking for gifts of Romas to support their activities. If the trader agrees, the local manager of the Roma system overprints the required number of notes with the name, address and logo of the donor and that of the good cause to which they are being given. The business sponsoring the notes promises to supply goods or services to the value of &#pound;1 for every note presented at its premises. It also agrees to honour notes issued by other sponsors.

The notes are also overprinted with a date a few months from the time of issue after which holders can present them to the organisers for conversion into cash at a rate of one Roma to an Irish pound. The cash to cover the cost of conversion comes from the sponsors. If a business has backed, say, &#pound;500-worth of Romas that matured last month, it can cover the cost of its sponsorship by paying the organisers &#pound;500 in cash, or handing over 500 mature Romas no matter who issued them. If the business has gained more than 500 mature Romas, it will be paid &#pound;1 for every one above the 500 mark.

The reason for converting mature notes into cash and withdrawing them from circulation after a few months is to create space for later issues of notes in favour of other voluntary organisations. Otherwise, the benefits to the good causes would only occur in the early stages of the currency's development while the amount of Romas in circulation was continuing to expand.

Notes that aren't presented for conversion within a month of maturity lose their value altogether. This is to allow the accounts for a particular note issue to be closed. There will always be some notes from an issue that are lost or taken as souvenirs and so never exchanged for cash. If the conversion period was not limited, the organisers would have to keep reserves of national currency on hand in perpetuity in case the outstanding notes turned up. Obviously, the system's managers don't have to pay out on the Romas that are not presented for conversion. They make a &#pound;1 profit on each, which goes to meet their running costs.

Firms get major advantages from giving their donations in Romas rather than conventional money. For example, when a firm gives cash, the amount involved comes straight out of its profits for the year because it is paid from the proceeds of sales that have already been made. A gift of Romas, on the other hand, comes out of the profits to be made on future business, which the new money will help to generate. Moreover, the fact that a firm's name appears on the note in association with a local good cause is not only good advertising but builds a lot of goodwill. And, finally, the system is very tax-efficient because the notes are treated as discount vouchers when they are used to make a purchase from the firm that issued them. Consequently the amount of the gift is free of VAT. McGarry thinks that if firms find that supporting local organisations with Romas is beneficial then they will be much more generous to them.

The voluntary organisations spend their notes in the local area just as if they were national currency. In Ballyhaunis, 92 out of the 95 local traders were happy to accept them. The public, too, was happy to earn them, or to take them as change, as they knew that by doing so they were helping the good causes named on them and that they could always spend the notes at the next shop.

The plan is to set up a user-owned co-operative to run the system which will steadily increase the amount of Romas in circulation until saturation is reached and people begin to be reluctant to handle more. Other towns in the area will be brought into the system and the stage should quickly be reached at which notes are being issued and withdrawn every month. After two or three years, when confidence in the Roma as an exchange currency is sufficiently high, the co-op will open cheque accounts for businesses to allow them to pay each other in Roma instead of Irish pounds. These accounts will be operated on the same no-interest, service-charge-only basis as the WIR and participating firms will be required to give security

for overdrafts above a certain amount. There will also be stringent safeguards to ensure that firms spend as many Roma-days in credit as in debit.

When this stage is reached, the ability to accept payments in Roma should give local businesses a competitive advantage within their own area over firms from outside who will have to insist on 100% payment in Irish pounds or, by then, Euros. It will also mean that the people of the area will no longer have to earn money outside the district before they can do business among themselves. The most remarkable thing about the Roma system, however, is that it is simple to set up and cheap to operate and could be developed over a period of years into a fully-fledged regional currency.

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### **3. Store of value currencies**

The establishment of separate store-of-value currency in a nation or region is desirable because it enables the medium-of-exchange currency to work better. One problem with trying to get a single currency to fill both functions is, as we've seen, that if people withdraw money from the circular flow because they want to save/hoard/invest it, they can leave an inadequate amount for trading purposes. This could cause firms to cut their prices to encourage sales, and once people recognise that prices are falling steadily, they will put off buying for as long as they can, thus taking even more money out of the system, reducing purchasing power and making the downturn worse.

Inflation presents another problem to a dual-purpose currency. We just discussed how a moderate level of inflation is desirable because it can help declining sectors of an economy to adjust to changing circumstances. However, any inflation at all means that a currency's store of value is being eaten away. Consequently, it is impossible to strike a perfect balance between the two functions.

#### **Nothing is perfect**

There is no such thing as a perfect store of value in this world and there cannot therefore be a perfect store-of-value currency. The exchange value of something is not absolute; it depends on its scarcity and on factors and fashions that vary over time. Putting one's money into real assets, such as property or the stock market does seem to protect its value in the very long term. Historically, however, there have been periods of two or three decades in which the purchasing power of the assets would have been significantly above or below the initial level. As the graph shows, anyone who bought the shares that made up the original Financial Times Index when it was launched (continually adjusting their portfolio to match it exactly), would have seen the purchasing power of their holding show a loss from 1937-1960 and a gain from 1960- 1973. For brief periods the losses were massive: in 1939 the holding would have lost 60% of its value, and in 1975 over 70%. The peak gains were of a similar size, however, and on top of them, dividends would have been paid every year. By contrast, anyone keeping their money in a normal, non-interest-paying account at the bank or under their bed, would have seen its purchasing power fall drastically. Between 1971 to 1991, for example, the Deutschemark lost more than 52 % of its 1971 value, the US dollar more than 70 % and the British pound more than 84%.<sup>30</sup>

There is a precedent for having a currency for spending and a currency for saving and it seems to have worked well. Between the 1950s and the late 1970s, people who wished to move capital out of the Sterling Area - a group of countries that used sterling for trading among themselves and who often kept their gold and foreign exchange reserves in London - had to buy whatever foreign currency they needed on a special market at a special exchange rate. The rate was quite different from that which applied if they wanted foreign currency for consumption purposes such as holidays or importing goods. The foreign currency they received for a capital transaction such as the purchase of a holiday home or a business abroad would have been provided by someone wishing to move their capital in the opposite direction. The exchange rate was determined by supply and demand. Effectively, then, there were two separate types of sterling, capital sterling and consumption sterling. In 1974, when my wife and I sold a house we had built ourselves in Jamaica and brought the Jamaican dollars into the Sterling Area, we received twice as many pounds as would have been the case had we been exchanging the proceeds of an export deal.

The advantage of dividing the foreign exchange market in this way was that capital inflows and outflows always balanced. As a result, capital flows did not distort the exchange rate that applied to imports and exports. However, in the present system the capital and import/export flows are combined. The result is that a big capital inflow discourages exporting by making it less profitable and encourages imports by making them cheaper. New Zealand has suffered badly from this effect. Since the mid-1980s it has sold off its banks, its railways, much of its industry and a lot of its forests to foreign investors, only to see the money they paid strengthening the exchange rate of the New Zealand dollar. This damaged the export earnings of its farmers and encouraged a flood of imports of goods, even soups and other food products previously made at home, sharply increasing the level of unemployment. Quite literally, the country sold its inheritance for, among other things, a mess of potage.

### **Storing savings**

In the system envisaged in this Briefing, people would want to get any surplus spending power they had out of the exchange currency as quickly as possible because of the rate at which inflation was stripping it of its value. They would therefore convert it into the store-of-value currency at the ruling rate and either invest the proceeds themselves, or hand them over to banks and pension companies to invest for them. Then, when they wanted to spend their savings, they would convert their store-of-value money back into exchange money at whatever the market rate was at the time.

Bank loans, other than less-than-one-year overdraft facilities, would be made in the store-of-value currency which the firm or person taking them out would convert into exchange currency. Interest on these loans, however, would be paid in the exchange currency so that if lenders made a profit after having covered the exchange money costs of their activities, they would have to convert the surplus to store-of-value funds. Similarly, companies would pay dividends on their shares in exchange currency. These arrangements would make it possible to pay interest without either having to increase the amount of exchange money in circulation or reducing the amount in the circular flow. Loan repayments would, of course, have to be made in store-of-value money that the borrower had to buy at the going rate. A futures market would probably appear as soon

as the system was adopted so that borrowers would know exactly what the exchange currency cost of their repayments would be.

People or companies wishing to move their capital out of the region or country would use their store-of-value money to buy foreign store-of-value currency provided by people moving their capital in the other direction, exactly as in the old Sterling Area system. This would prevent a sudden 'capital flight' and make the store-of-value currency very stable without preventing people moving their capital whenever they wished. Another feature contributing to the stability of the store-of-value currency would be that if more people wanted to save rather than to borrow, the exchange rate between the exchange currency and the store of value currency would shift. This would decrease the store-of-value loan required to do a particular job, and thus the amount of exchange currency required to pay the interest on it. This would encourage more people to borrow and fewer to save, bringing supply and demand back into balance.

As I show in my book *Short Circuit*, even flows of capital from one part of a country to another can have damaging consequences.<sup>31</sup> This is because they create employment in the places in which they are invested and thus encourage workers to move to those districts from elsewhere. The arrival of extra people creates further investment opportunities in the areas in which the money was invested. On the other hand, it becomes more difficult to find good investment opportunities in the areas the migrants have left due to the falling population and these districts start to decline. In other words, a positive feedback builds up, with some places becoming richer while others become poorer. Exactly the same effect can develop between countries if people are able to emigrate. As store-of-value currencies would prevent net capital flows from country to country, they would therefore tend to inhibit the global economic polarisation that has recently been taking place.

## **5. Special purpose currencies**

In addition to the four types of money we have mentioned, there would be a need for short-life currencies to fund particular projects. These currencies could perhaps be along the lines of the first stage of the Romas (see Box 6) or the Deli Dollars issued by a delicatessen in Great Barrington, Massachusetts, ten years earlier. The deli faced closure because no bank would advance \$4,500 to enable it to move premises. Its dollars were vouchers entitling the bearer to ten dollars worth of food and drink after the delicatessen had relocated. They were sold to customers and the general public at \$9 each and became valid for redemption on a staggered basis months later. Enough money was raised to enable the deli to relocate and the notes, although not intended as a currency, to a limited extent circulated as one. It is possible to imagine similar notes being issued to help finance, for example, a wind-energy project. Each note could represent 100Kwh of electricity and be used to pay for it months, or years, later.

The details of possible special currencies are not important at the moment, however. This is because, although they will come in a limited number of basic types, they will exhibit an enormous amount of variation as people adapt them to perform specific functions in many different circumstances. There is little point in speculating on the variations here.

## **Balancing the global and the local**

There would be huge repercussions from introducing the four or five different types of currencies we have discussed. In effect, they would put a semi-permeable membrane around each national or regional exchange currency area. Money, goods and services would be able to pass through these economic membranes, but whatever flows arose would automatically be balanced by an equal flow in the other direction. No longer would the poorer parts of the world be stripped of resources without receiving something of equivalent value.

Similarly, the power that international investors currently have over national governments would be greatly reduced. It would no longer matter whether a big investor moved his money into a country or decided to take it out. The market would ensure that whatever was decided, the external exchange rate of the country's store-of-value currency against other store-of-value currencies would adjust by enough to encourage people to move an equivalent amount of their funds in the opposite direction. As the exchange rate of a country's exchange currency with other exchange currencies would be unaffected by changes in the value of its store-of-value currency, a national or regional government would be able to pursue whatever investor-unfriendly policies it wished, knowing that normal import-export trading would continue.

Globalisation would not be dead once international money flows had lost their power to bend national economies to their will but its source of energy would be gone. As a result, local economies would be able to re-emerge and, protected by their membranes, move towards stability and sustainability as rapidly as they wished. No longer would they fear that moving towards sustainability would lead to their economies being undermined by competition from parts of the world with lower costs from unsustainable production. Instead, in a complete reversal of the present situation, they could look to the financial markets for protection. In the light of this, changing the way money is created is the most important step this generation can take towards securing its own and posterity's future. In Lewis Mumford's phrase, "It is the way to turn a power economy into a life economy."