



The Foundation for the Economics of Sustainability
159 Lower Rathmines Road, Dublin 6, Republic of Ireland.
Tel: 00 353 (0)1 4912773 Fax: 00 353 (0)1 4912203
E-mail: feasta@anu.ie Web: www.feasta.org

Climate and Currency: Proposals for Global Monetary Reform

Feasta believes that the present world financial and monetary system is so gravely dysfunctional that it makes the achievement of sustainability impossible. We have three main reasons for this belief:

- a) The Earth is finite, and, as all economic growth requires some use of the Earth's resources, perpetual growth is not compatible with sustainability. Unfortunately, most of the money used around the world is created on the basis of debt and ceases to exist if that debt is repaid. This means that if the world economy is not to collapse because a lot of the money required to make trading possible has disappeared, it needs to grow continually by enough to ensure that investors can always find attractive opportunities and consequently always borrow more than they repay. In other words, as things stand, the money system is always in direct conflict with social and environmental limits and has to take precedence over them.
- b) National and multinational currencies created by some of the wealthiest countries in the world are used as if they were world currencies. The countries issuing the pseudo-world currencies gain enormous power and advantages at the expense of the rest of the world.
- c) Individual governments cannot afford to take account of whether the growth required to stop the global system from collapsing is socially or environmentally sustainable because current account and capital account money flows are lumped together when the market determines their currencies' exchange rates. This gives the owners of mobile capital an excessive amount of power over exchange rates and hence over governments. It also creates instability by allowing speculative financial flows to destabilise the 'real' economies of the countries concerned.

None of the proposals for reforming the world's financial architecture we have seen circulated so far in the run-up to the World Summit on Sustainable Development attempts to deal with the root causes of these problems as opposed to their symptoms. Accordingly, we present our proposals for changes at the Global, National and Sub-National levels in the hope that they will influence the

debate. The proposals should be considered as a package. However, the three National and Sub-National level proposals could be adopted by countries in the absence of change at an international level. Our seven proposals are:

Global

1. A genuine world currency should be established.
2. This new world currency should be issued by being given into circulation rather than lent.
3. The initial distribution of the new currency should be on the basis of population rather than economic power.
4. Over the years, the supply of the new currency should be limited in a way which ensures that the overall volume of world trade is compatible with whatever is considered to be the most crucial area of global sustainability. In our view, this is the world climate.

National

5. Each country or monetary union should operate two currencies, one for normal commercial exchanges, the other for savings and capital transfers. Each of these currencies would have its own floating exchange rate with the new international currency, and hence a variable exchange rate with the other.
6. The new national exchange currencies would be spent into circulation by their governments rather than being created through the banking system on the basis of debt.

Local

7. The establishment of regional (i.e. sub-national) and local exchange currencies should be encouraged.

We'll look at these in turn.

1. A genuine world currency should be established.

The dollar, the pound sterling, the euro, the Swiss franc and the yen are all 'reserve currencies' - in other words, they are the currencies which the world's central banks keep in reserve against the day they might have to intervene in the markets to support the exchange rates of the national currencies for which they are responsible. When gold was the world currency, wealth was created wherever the gold was found. Today, wealth is created in the reserve currency countries

when their banks approve loans. The amount of this wealth is considerable. According to IMF figures, the dollar holdings of the world's non-US central banks increased by approximately \$145 billion in 1999. This means that the US either lent or spent these extra dollars in the rest of the world during that year, gaining either goods and services or interest payments for them, but that during the year it did not supply anything in return. By accepting the dollars without getting anything back, the rest of the world was giving the US a massive subsidy. In the eight years between 1992 and 2000, the world's central banks increased their dollar holdings by around \$800 billion, effectively giving America a cost-free loan of the same amount.

We say cost-free rather than interest-free because most of this money was, in fact, deposited by the central banks with financial institutions in the United States and interest was paid on it. However, that interest was paid in dollars created by a book-keeping operation and added to the total amount of dollars held by the rest of the world. A cost to the US would only have arisen if the dollars paid in interest had actually been used to buy American goods or services but, in fact, no such cost has been paid since the country went into a mild recession in 1991, the only year in the past 20 in which the US supplied more goods and services to the rest of the world than it took in. In the other 19 years, the US has run a deficit on its import-export account and become increasingly indebted internationally. These debts will remain cost-free for as long as the US is able to continue to pay interest in dollars and increase the amount it owes.

A good idea of how big a subsidy this \$800bn is can be gained by recalling that in 1998, the UNDP estimated that half that sum, the expenditure of only \$40bn a year for ten years, would enable everyone in the world to be given access to an adequate diet, safe water, basic health care, adequate sanitation and pre- and post-natal attention. But, huge though it is, the sum is just a small fraction of the advantage the US gains by having a reserve currency. In addition to central banks, dollars are also held by companies, institutions and millions of people around the world, either in notes in a wall safe, as deposits in a US bank account, or as some form of security – perhaps as a bond such as a Treasury bill or in shares traded on Wall Street.

The total gain from having a reserve currency (the technical term is seignorage) is the cumulative balance of payments deficit on the import-export account that the issuing country is able to run up. At present, the \$2,500 bn. net debt owed by the US to the rest of the world would take the total income from its export sales for thirty months to pay off assuming America imported nothing at all. Looked at another way, seignorage currently enables America to import half as much again as it exports.

A handful of other countries benefit from seignorage too but to a much more limited extent. Britain does best amongst these runners-up. It gained goods and services worth £31 billion from the rest of the world between 1992 and 2000

thanks to the increase in central banks' holdings of sterling. This was just 5.7% of the US gain from the same source over the same period. Britain has also been able to run up a debt with the rest of the world - the UK balance of trade has been negative in every year since 1985 with the result that the country's net financial liabilities stood at £69.8 billion at the end of the third quarter of 2001. The government statistics office describedⁱ this as 'a relatively large figure historically speaking' although it was only 4% of what the US owed. Britain's present current account deficit is around 2.5% of its GDP.

The other beneficiaries from seignorage did not run up current account deficits and so failed to take advantage of their position. Japan, for example, which got 4.5% of the US gain between 1992 and 2000, has run a trade surplus for many years. The same applies to Switzerland (0.6% of the US gain) and the countries which now make up the eurozone (a miniscule 0.25%).

At present, countries without reserve currencies lack the freedom to refuse to earn increasing amounts of dollars, pounds, yen or euro only to lend them back to the countries which issue them. This is because while the volume of world trade is growing, they need to increase their reserve currency deposits with banks overseas for the same reasons that private individuals want more money in their personal bank accounts – to make investments and to pay for their increasing purchases. Accordingly, these countries' only choice is whether or not to reduce their holdings of one reserve currency - perhaps because they think that it's about to fall in value compared with the others – and to increase their balances of the others to compensate.

For as long as world trade continues to grow, the indebtedness (and thus the seignorage gains) of the reserve-currency issuing countries is likely to increase. But if world trade declines or a world currency is introduced, surplus reserve currencies would begin to return to their countries of issue in exchange for goods and services. On the basis of the figures above, only the US would be seriously affected by this. The value of the dollar would fall and American living standards would fall sharply as a higher proportion of everything being produced in the US would have to go abroad in exchange for the returning dollars. The cost of everything produced and consumed locally that could be exported would rise by the extent of the devaluation.

Some economists are concerned that such a collapse in US living standards might be imminent because they believe the US current account deficit is reaching unsustainable levels. In 1999, Catherine L. Mann, a professor at Vanderbilt University, investigatedⁱⁱ previous current account corrections in industrialised countries in the past twenty years. She concluded that a current account deficit of over 4.2% was unsustainable and that a correction in the US was likely in two or three years.

“The US cannot live beyond its long-term means forever, nor will US assets always be so favored by global investors” Mann wrote in an articleⁱⁱⁱ ‘Is the US

Current Account Deficit Sustainable?’ published by the IMF in March 2000. “When a change in investor sentiment comes, it could be dramatic. What would happen if the dollar depreciated by a significant amount, say 25 percent?” she went on, only to answer her own question: “US consumers would shift from buying imported goods and services to buying those made domestically and US labor markets would tighten further. The combination of rising wages and a falling dollar likely would drive up prices.” Then, she believes, the Federal Reserve would try to choke the developing inflation by raising interest rates, thus disrupting financial markets around the world.

Caroline Freund of the Federal Reserve researched^{iv} the same ground as Mann and also found that the US deficit was unsustainable except that she reckoned that the markets normally bring these corrections about when the deficit rises above 5% of GDP rather than 4.2%. As the US deficit is expected to exceed 5% at the end of this year, Mann and Freund’s work has led economists employed by stockbrokers and merchant banks to alert their clients to the dollar’s potential fall. For example, Steven Roach, chief economist at Morgan Stanley, warned^v several times earlier this year of ‘a US balance of payments crisis by 2003’ and ‘America’s looming current-account adjustment’ while his colleague, Eric Chaney, talked^{vi} of ‘a massive devaluation’. Their predictions will certainly help bring the crisis they warn of about since they will be used by Morgan Stanley’s 61,000 employees around the world to encourage clients to switch out of the dollar into sterling or the euro. In short, the present system of world money creation is both unfair and unstable.

A true world currency

Rather than allowing a select group of countries to provide the world with its money, it would be fairer to have an international institution do so in order to share the seignorage gains among the currency’s users. Remarkably, such a currency already exists. The press called it ‘paper gold’ when it was first issued by the IMF in 1969 since its official name, Special Drawing Rights (SDRs), was somewhat boring.

SDRs came about because it did not make sense to mine gold and keep it in bank vaults to use as the basis of the world’s money when account book entries could do just as well. Each SDR’s value was based on a weighted average of the value of the currencies of the largest exporting IMF members and each issue was shared out among IMF members according to a quota based on the country’s national income and the amount of international trade it did.

No SDRs have been issued since 1981 although a majority of the member countries of the IMF would have liked to see that happen. Each country’s vote in the IMF is weighted according to its quota and 85% of the total weight of votes has to be in favour of a proposal before it is considered passed. As the US has 17% of the total voting weight, SDRs cannot therefore be issued without its

approval. That will never be given because if the reserve currency system carries on as it is, the US can expect to be able to get an indefinite cost-free loan of perhaps 70% of the world's new money. If, on the other hand, SDRs are issued, the US share of the money given out internationally will be its quota, a measly 17%.

Essentially, SDRs are a version of the international currency, the bancor, (i.e., bank gold) proposed by John Maynard Keynes and the British delegation at the Bretton Woods Conference in 1944. Like SDRs, bancors were to be reserved for exchanges between central banks but, rather than their value being fixed in terms of a basket of other currencies, they were defined in terms of gold. The US also went to Bretton Woods with a plan for a world currency, the unitas, but as the Nobel-prizewinning economist Robert Mundell once put^{vii} it “academic internationalist idealism fell prey to economic national self-interest” and both rival schemes were dropped. Instead, the US imposed a system under which the liquidity required for world trade was to be provided by gold and by dollars linked to gold at a fixed rate, \$35 dollars an ounce. By so doing, America effectively made itself the world's bank

The link between the dollar and gold was, of course, broken unilaterally by the US in 1971 after it had spent more many dollars into circulation internationally to pay for the Vietnam war than it had gold in Fort Knox to back them. Fearing that the dollar's value had become unsustainable, holders led by the French under President de Gaulle rushed to convert them to gold before a devaluation happened. A run on the bank began and the manager, President Nixon responded by refusing the holders of the promissory notes he had issued what they were due. He defaulted by ‘closing the gold window’, thus ending any fixed relationship whatever between the dollar and gold. This destroyed the key feature of the Bretton Woods system which, in retrospect, seems to have served the world reasonably well. What emerged in its place was a totally-unthought-through arrangement which allowed the defaulter, the world's richest and most powerful country, to reap a massive benefit by creating the majority of the global money supply with no formal constraints at all. This has to be corrected.

2. The new world currency should be issued by being given into circulation rather than lent.

There are three ways in which the new currency could be put into circulation. It could be lent, spent, or given away. The disadvantages of lending the money into use are that:

- i) The new money would only go to ‘sound’ borrowers. In other words, it would go to the financially strong.
- ii) As the loans were repaid, the amount of money in circulation would shrink, reducing the size of the world economy unless new loans were taken out. But new loans would not be taken out unless the world

- economy was buoyant. As a result, issuing the new money this way would reinforce the present system's growth imperative, the prime cause of its unsustainability.
- iii) The interest charged on the loans would reduce the amount of money in global circulation. If the world economy was not to contract, additional loans would have to be taken out. This would cause the ratio of debt to gross world product to increase, eventually to unsustainable levels, unless the world economy grew, in real terms, at the same percentage rate as the rate of interest charged. This would heighten the growth imperative.

The new currency could certainly be spent into use over the years at a rate which would not cause a global inflation by being used to pay for, say, greatly expanded activities by the United Nations and to relieve Highly Indebted Poor Countries of their debt. However, this approach would make it unlikely that the new currency would displace the present reserve currencies entirely. All it could hope for would be to capture the seignorage gains resulting from rising levels of world trade which would otherwise go to the reserve-currency-issuing countries. Very little of the new money would trickle down to the poor.

Feasta's strong preference is for a once-off currency give-away on a scale that would immediately make it the main world currency and allow the reserve currencies to be returned to their countries of origin to clear international debt and for the purchase of goods and services.

3. The distribution of the new currency should be on the basis of population rather than economic power.

SDRs were given into circulation but, as we noted, they were allocated on the basis of a country's IMF quota which is related to its importance in world trade. This was scarcely equitable as the strong got the lion's share of the new money. The Feasta proposal, for reasons which will become apparent in the next section, is that any new international currency issue should be distributed to countries on the basis of their populations on some agreed date.

4. The supply of the new currency should be limited in a way which ensures that the overall volume of world trade is compatible with the most crucial area of global sustainability.

To deliver the maximum level of human welfare, every economic system should try to work out which scarce resource places the tightest constraint on its development and expansion. It should then adjust its systems and technologies so that they work within the limits imposed by that constraint. In line with this, an international currency should be linked to the availability of the scarcest global resource so that, since people always try to minimise their use of money, they automatically minimise their use of that scarce resource.

What global resource do we most need to much use less of at present? Labour and capital can be immediately ruled out. There is unemployment in most countries and, in comparison with a century ago, the physical capital stock is huge and under-utilised. By contrast, the natural environment is grossly overused especially as a sink for human pollutants. For example, the Intergovernmental Panel on Climate Change (IPCC) believes that 60-80% cuts in emissions of one category of pollutants - greenhouse gases, which come largely from the burning of fossil fuels - are urgently needed to lessen the risk of humanity being exposed to the catastrophic consequences of a runaway global warming. Feasta believes that this is the most serious resource threat facing humankind at present, and that, consequently, the basis of the new world currency should be selected accordingly.

Contraction and Convergence (C&C), a plan for reducing greenhouse gas emissions developed by the Global Commons Institute in London, provides a way of linking a global currency with the limited capacity of the planet to absorb or break down greenhouse gas emissions. Under the C&C approach which has gained the support of a majority of the nations of the world, the international community agrees how much the level of the main greenhouse gas, carbon dioxide (CO₂), 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 melting icecaps, dryer summers, rougher seas and more frequent storms have already appeared.

Choosing a concentration target

Whatever CO₂ concentration target is ultimately chosen automatically sets the annual rate at which the world must reduce its present emissions until they come into line with the Earth' s capacity to absorb the gas. This is the contraction course implied in the Contraction and Convergence name.

Once the series of annual global emissions limits have been set, the right to burn whatever amount of fuel this represents in any year would be shared out among the nations of the world on the basis of their population in an agreed date, say, 1990. In the early stages of the contraction process, some nations would find themselves consuming less than their allocation, while others would be consuming more, so under-consumers would have the right to sell their surplus to more energy-intensive lands. This would generate a healthy income for some of the poorest countries in the world and give them every incentive to continue following a low-energy development path. Eventually, most countries would probably converge on similar levels of fossil energy use per head.

But what currency are the over-consuming nations going to use to buy extra CO₂ emission permits? If those with reserve currencies are allowed to use them, they would effectively get the right to use a lot of their extra energy for free because, as we just discussed, much of the money they paid would be used for investing and trading around the world rather than purchasing goods from the countries which issued them. To avoid this, Feasta worked with GCI to devise a plan under which a new international organisation, the Issuing Authority, 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 their entitlement under the Contraction and Convergence formula.

Special Emissions Rights

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 fossil energy producers to ensure that their sales did not exceed the number of SERs they received. This would be surprisingly easy as nearly 80 per cent of the fossil carbon that ends up as manmade carbon dioxide in the earth's atmosphere comes from only 122 producers of carbon-based fuels^{viii}. The used SER coupons would then be destroyed.

The prospect of this happening is not a fantasy. A considerable amount of work has already been done towards the development of an international trading system in carbon dioxide emission rights both at a theoretical level and in practice in the United States, where 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.

Besides the SERs, the Issuing Authority would supply governments with the system's new money, 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 through that to the use of fossil energy.

The issue of the ebcu money would be a once-off, to get the system started. If a buyer actually used ebcus to buy additional SERs from the Issuing Authority in order to be able to burn more fossil energy, the number of ebcus in circulation internationally would not be increased to make up for the loss - the ebcus paid over to the Issuing Authority would simply be cancelled and the world would have to manage with less of them in circulation. This would cut the amount of international trading it was possible to carry on and, as a result, world fossil energy consumption would fall. In other words, the level of international trading at any time would always be compatible with achieving the CO₂ concentration

target. If renewable energy output grew or the efficiency with which fossil energy was used was improved sufficiently rapidly, it would be possible for world trade to increase.

Governments could auction their Issuing Authority allocation of SERs at home to major energy users and distributors and then pass all or part of the national currency received to their citizens as a basic income. They could also sell SERs abroad for ebcus. The prices set by these two types of sale would establish the exchange rate of their national currency in terms of ebcus, and thus in terms of other national currencies.

Essentially, the system is a version of the Bretton Woods arrangement which President Nixon destroyed except that the right to burn fossil energy has replaced gold and ebcus play the role of the US dollar. Its introduction would meet fierce opposition from oil and gas exporting countries because, since many of their richer customers would have to buy SERs before they could purchase fuel, less money would be available to spend on the fuel itself. This would deny the fuel producers the huge profits they can expect to make when oil and gas become increasingly scarce in the near future. According to one of the world's leading petro-geologists, Dr. Colin Campbell^{ix}, the world's oil output is expected to peak somewhere between 2005 and 2008, and the production of gas around 2020. In the absence of some system of demand limitation such as SERs, the importing nations will have to offer higher and higher prices for - or go to war over- the rapidly declining amounts that the wells will be able to deliver.

On balance however, most other countries, even fossil-energy over-consumers like those in EU, would do well out of the new system for the very reason that the oil and gas producers would oppose it. Issuing a fixed amount of SERs would mean that overconsumers did not squander their money pushing up the price of fuel in a bidding war against each other. Instead, the ebcus they spent to buy extra SERs would go to the poorer nations selling them where they would create much better markets for their products.

5. Each country or monetary union should operate two currencies, one for normal commercial exchanges, the other for savings and capital transfers. Each of these currencies would have its own floating exchange rate with the new international currency, and hence a variable exchange rate with the other.

This proposal involves keeping flows of money from imports, exports, tourism and interest payments - current account flows – apart from flows of investors' capital. It does this by operating two foreign currency exchanges, with independent exchange rates, one for each type of flow, exactly as was done in the Sterling Area from the late 1940s until the late 1970s and more recently in South Africa between September 1985 and March 1995. The point of keeping the flows apart is that, at present, if there is an inflow of capital to a country – perhaps to

buy a company there – the increased availability of foreign currency means that the strength of the national currency increases and that, as a result, the country's exporters get less national currency for the foreign currency they bring home. This naturally hurts them. It also hurts companies producing for the home market, because competing imports become cheaper.

If the flows are kept separate, however, each exchange rate adjusts so that export earnings always equal the cost of imports, and inflows of capital always equal outflows. This gives the government much more freedom of action. It means, for example, that if something happens which causes a lot of people to try to move their capital overseas, the exchange rate in terms of ebcus they will get for their money will rise to discourage them without putting up the exchange rate that other people have to pay to get foreign currency to buy imported goods. Consequently, this proposal would allow governments to adopt policies that benefit its own people even if these policies upset international and domestic investors. It would cease to matter whether a foreign company decided to invest in a country as all its decision to do so would mean would be that people who wished to move their capital out of the country would get more foreign currency in exchange. It would be the same with foreign loans – they would simply improve the terms on which the better-off could move their capital offshore. The separation of capital and current account flows could be adopted by countries even if the ebcu/SER arrangements do not proceed.

6. The new national exchange currencies should be spent into circulation by their governments rather than being created through the banking system on the basis of debt.

Sustainability requires a money supply system that can run satisfactorily if growth stops. Money created through the banking system on the basis of debt only exists because people have borrowed it and ceases to exist if they pay their loans off. Such a supply is therefore incompatible with sustainability since circumstances could easily arise – an ageing population, for example, as in Japan at present - in which people decide not to borrow enough to maintain a circulating money stock of sufficient size to permit the desired level of trading to go on. The smaller money supply that results causes the level of trading to shrink, further deterring borrowing and causing a further decline in the money supply and hence in the level of trading. In short, a debt-based money system is fundamentally unstable.

Instead, Feasta believes that money should be created by being spent into circulation by the government. This brings the following advantages:

- 1) If the state spent the required amount of new money into circulation each year, either taxes could be reduced, or public expenditure increased, or both. The benefit would be substantial. In the 1998-9 period in Britain, for example, it would have amounted to a sixth of all state spending. Statutory controls on the amount of money a

government could issue are highly desirable, however, as in the past, many governments have found it easier to print money and spend it rather than raising it in taxes.

- 2) Allowing the banks the privilege of money creation constitutes a massive subsidy to the financial sector. It therefore distorts the way the economy operates.
- 3) The necessity to pay interest on almost all the money required to keep the economy running bears more heavily on the poor than the rich. It is effectively a regressive tax.
- 4) Spending money into circulation creates a stable economic system which does not have to be kept constantly growing regardless of the environmental and social consequences. If firms in a particular industry get into difficulties and go into liquidation, their departure leaves the money supply intact, and thus the same potential level of purchasing power to be shared among the rest of the economy. Demand in other sectors would therefore increase and profits rise, tending to counteract the decline. Such a system is therefore much more compatible with the achievement of sustainability.
- 5) Because a high volume of bank lending is required to keep the present money system functioning, the banks shape the way the economy develops. They determine who can borrow and for what purposes according to criteria which favour those with a strong cash flow and/or substantial collateral. As a result, the present money system favours the rich and multinational companies and discriminates against smaller firms and poorer individuals. The proposed system of money creation would lessen this bias.
- 6) Another advantage of the proposed system would be that the exchange currency could be allowed to inflate gently as people would no longer rely on it a store of value for their savings. A mild inflation - up to 8%, some economists think - creates a flexible, benign business climate and allows the government to reap seignorage gains as it spends the additional money the inflated volume of trading requires into circulation.

7. The establishment of regional (i.e. sub-national) and local exchange currencies should be encouraged.


Except in the tiniest countries, regional - that is sub-national - exchange currencies might be better than national ones in meeting users' needs. The drawback which can arise with a national exchange currency - and 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 unaffected, it is very difficult to attract or grow replacement industries to the affected region unless its price levels - and in particular, its labour costs - come down. The price levels which 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. Pushing price levels down is difficult because the newly-unemployed in that region will fight tooth and nail against accepting lower wages to 'price themselves back into work' since many will have taken out mortgages and made other commitments on the basis of their present wages and could not make ends meet at lower rates of pay. 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 was on its knees after the closure of its coal mines and most of its heavy industries such as shipbuilding, the North-South gap which developed would 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 which were forced to close.

The value of national and regional exchange currencies in relation to the ebcu should be determined solely by the market and that central banks should not maintain ebcu and foreign currency reserves to use to support their currencies. Speculators ought to be able to do the job of moderating the rate of change of the currencies and preventing 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

Conclusions

Anyone who has money has power – over people, resources, governments and arms. Surprisingly, however, the world has paid very little attention to how money is created and the power structures that result from creating it and issuing it in a particular way. We have worked until now on the assumption that there is only one type of money and that only one type of global and national money system is possible. One size has to fit all because we are not aware of any other possibilities.



Thus, SDRs apart, we have to work with one type of international money, the debt-based reserve currencies, which become more abundant when people are happy to borrow and scarcer when potential borrowers become afraid. Such currencies inflame economic booms and worsen depressions. Moreover, they require the economic system to grow continually to avoid collapse, so bringing it into conflict with society and the natural world.

These conflicts will run on until the monetary system is changed. The environmental movement should therefore demand that the reserve currencies' be replaced by a global currency whose availability is determined by the availability of the scarcest environmental resource. Feasta believes this to be the ability of the Earth to absorb greenhouse gases. National and regional currencies should then be linked to the new global currency by floating exchange rates in a system which prevents capital inflows and outflows distorting rates determined by trading in goods and services which would otherwise ensure every country's imports and exports were always in balance.

ⁱ Economic Update, 12/02/2002

http://www.statistics.gov.uk/themes/economy/electronic_articles/eu/exports.asp.

ⁱⁱ *Is the US Trade Deficit Sustainable?* Institute for International Economics, Washington DC, 1999.

ⁱⁱⁱ See *Finance & Development*, Vol. 37, No. 1, March 2000. Can be downloaded from www.imf.org/external/pubs/ft/fandd/2000/03/mann.htm

^{iv} 'Current Account Adjustment in Industrialized Countries,' International Finance Discussion Paper No. 692, Board of Governors, Federal Reserve Board, Washington DC, December 2000. Available at <http://www.federalreserve.gov/pubs/ifdp/2000/692/ifdp692.pdf>

^v 'When the Tide Goes Out', *European Investment Perspectives*, Morgan Stanley, 13th February 2002. Also 'Global Decoupling' *Global Economic Forum*, Morgan Stanley, 30th January, 2002.

^{vi} Europe Economics: Global Decoupling: Chaotic or Orderly?, *Global Strategy Bulletin*, Morgan Stanley, 17 February, 2002.

^{vii} The International Monetary System in the 21st Century: Could Gold Make a Comeback?, lecture delivered by Robert Mundell at St. Vincent College, Letrobe, Pennsylvania, March 12, 1997. Available at <http://www.columbia.edu/~ram15/LBE.htm>

^{viii} *Kingpins of Carbon: How Fossil Fuel Producers Contribute to Global Warming*, Natural Resources Defense Council and others, New York, July 1999.

^{ix} The Imminent Peak of Global Oil Production, *Feasta Review*, No. 1, Dublin, 2001, pp 88-97