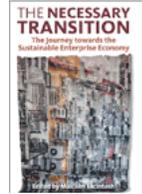


! This PDF is governed by copyright law, which prohibits unauthorised copying, distribution, public display, public performance, and preparation of derivative works.

**THIS CHAPTER
IS AN EXCERPT
FROM**

**The Necessary Transition: The Journey towards
the Sustainable Enterprise Economy**



EDITED BY Malcolm McIntosh

FIRST PUBLISHED June 2013

ISBN 978-1-906093-89-1 (pbk)

MORE DETAILS AT www.greenleaf-publishing.com/transition

© 2013 Greenleaf Publishing Limited

SUSTAINABILITY • RESPONSIBILITY • ACCOUNTABILITY

Greenleaf Publishing, Aizlewood's Mill, Nursery Street, Sheffield S3 8GG, UK
Tel: +44 (0)114 282 3475 Fax: +44 (0)114 282 3476
info@greenleaf-publishing.com <http://www.greenleaf-publishing.com>



14

Currencies of transition

Transforming money to unleash sustainability

Jem Bendell

Institute for Leadership and Sustainability, University of Cumbria, UK and Griffith Business School, Queensland, Australia

Thomas H. Greco

BeyondMoney.net

Introduction

The idea that money needs to be more ‘local’ to enable more environmentally sustainable and socially beneficial economies is a theme in a variety of conferences and initiatives that ally with the concept of ‘transition’ to low-carbon societies. The first ever Transition Town initiative sprang up in the rural British town of Totnes in 2006. One of its activities was to pioneer a local currency that one could purchase with British pounds. Subsequently, the Transition Network, which promotes the concept of Transition worldwide from its base in Totnes, has promoted similar schemes across the UK.¹ In 2012 the launch of the Bristol pound in the UK generated significant media attention, as Bristol became the first city in the UK to launch its own currency and gain the support of the local council, with the Lord Mayor spending the very first Bristol pound. People must purchase Bristol pounds by using

¹ www.transitionnetwork.org/blogs/josh-ryan-collins/2010-11/transition-currency-20-online-banking-system-local-money, accessed 20 February 2013.

national currency, and businesses can redeem them for national currency.² Almost entirely ignored by mainstream media in the past, local currencies and alternative exchange systems are becoming familiar themes in mainstream newspapers such as *The Financial Times*, *Wall Street Journal*, *Guardian* and *Der Spiegel*, as well as on both local and network TV. The reports focus mainly on attempts to keep money circulating locally instead of ‘leaking out’, as a way of enhancing the vitality of local economies and improving the prospects of local businesses in their struggle to compete with large corporate chains. This has been the key aim expressed by the originators of the pound-backed local currencies issued in Brixton, Bristol and elsewhere.

All of that is well and good, but could miss the main point of what ails our communities—and our world. The problems facing our communities, and civilisation as a whole, stem from the mechanisms by which money is created and allocated by the members of the most powerful cartel the world has ever known. Our current monetary system is the main underlying cause for multiple crises with sovereign debt, environmental destruction, spiralling inequality and mass unemployment. Unless we transform the way money is issued, rather than repackaging it after the fact, then we are not addressing the underlying problem. This insight is not widely understood by people working on social or environmental issues, even those who work on economic dimensions. As one of the authors of the original *The Limits to Growth* (Meadows *et al.* 1972) report, Dennis Meadows explains: ‘I did not think about the money system at all. I took it for granted as a neutral aspect of human society. . . . I now understand . . . that the prevailing financial system is incompatible with sustainability’ (in Lietaer *et al.* 2012a: 1). On average, modern humans are monetarily illiterate, not understanding the essence of money, how it is created and how this influences their experience of life. This illiteracy restricts our ability to work towards transition. In this chapter, our aim is to help relevant professionals understand the monetary origins of our current malaise, the practical steps being taken by communities to manage their own economies and exchange systems, and to map out some emerging issues for research, practice and policy. In conclusion, we explain how a focus on monetary systems can re-frame how we understand the sustainability challenge, away from being a matter of exhorting each-other to behave ‘better’ and/or impose more restrictions on our behaviours, towards a step-by-step liberation of communities’ innate ability to thrive in the ways that they themselves determine.

² www.ft.com/intl/cms/s/0/7080008e-0272-11e2-9e53-00144feabdc0.html#axzz29xujK32h.

The essence of money

In every developed economy, labour is highly specialised. Very little of what we need do we make ourselves. This fact makes the exchange of goods and services necessary for subsistence. But primitive barter is inefficient and dependent upon a coincidence of wants or needs—‘I have something you want and you have something I want’. If one of us has nothing the other wants, no barter is possible. Money was invented to enable exchanges that fall outside the local tight-knit communities in which less formalised modes of give and take are possible. It makes possible trade that is occasional and impersonal. Money is first and foremost a medium of exchange, a kind of place-holder that enables a seller to deliver real value to a buyer, then use the money received to claim from the market something that s/he needs from someone else. Archaeological research finds that the earliest records of money, engraved on stones in ancient Egypt, existed as lists of debts and credits of goods (Graeber 2011). Indeed, some of the earliest records of money were promises to deliver beer—up to two gallons a day for work on building the pyramids (Tucker 2011). This suggests that beer was useful at that time as the basis for an ‘exchange medium’: it would be readily accepted by many people, so could be accepted as payment even by those who did not want beer for themselves. I might, for example, have no personal use for tobacco, but knowing that many others desire it, I might accept it, or a promise to deliver it in future, in payment for my apples. The same goes for gold and silver, which eventually became the preferred commodities for use as exchange media.

Money has continued to evolve; today it is neither a ‘thing’ nor a promise to deliver a thing. It is *credit* in a system of accounts, which manifests mainly as ‘deposits’ in banks, and only secondarily, in small amounts, as paper currency notes. Every national currency is supported by the collective credit of everyone who is obliged by law to accept it.

In most countries today, it is estimated that about 3% of our money originates from government-owned mints that make notes and coins (Ryan-Collins *et al.* 2011). The rest is digital and is created by banks, out of nothing, when they issue loans. When you or your government goes to a bank to take out a loan, the bank does not lend its own money or that of its depositors. Instead it creates that money by an electronic accounting entry, in return for a contract that the borrower will pay back that amount, plus interest. Nothing is being loaned; banks simply create the money on the basis of the ‘borrower’s’ promise to pay (Ryan-Collins *et al.* 2011).

This fact sounds unbelievable to those of us who have not thought about how modern money is issued, rather than earned. Consequently, it is often helpful to quote the central banks themselves: ‘When banks make loans they create additional deposits for those that have borrowed the money’, explains the Bank of England. As Paul Tucker, the Deputy Governor for Financial Stability of the Bank of England further explains: ‘Banks extend credit by simply increasing the borrow-

ing customer's current account . . . That is, banks extend credit by creating money' (Ryan-Collins *et al.* 2011).

Unfortunately, even the best educational institutions are teaching their students a fictional account of how this system works today. In his best-selling *The Ascent of Money*, Professor Niall Ferguson explains how students are instructed at his university:

. . . first-year MBA students at Harvard Business School play a simplified money game. It begins with a notional central bank paying the professor \$100 on behalf of the government, for which he has done some not very lucrative consulting. The professor takes the banknotes to a bank notionally operated by one of his students and deposits them there, receiving a deposit slip. Assuming, for the sake of simplicity, that this bank operates a 10 per cent reserve ratio . . . it deposits \$10 with the central bank and lends the other \$90 to one of its clients. While the client decides what to do with his loan, he deposits the money in another bank. This bank also has a 10 per cent reserve rule, so it deposits \$9 at the central bank and lends out the remaining \$8 to another of its clients . . . By the time money has been deposited at three different student banks, [the monetary base, 'M0'] . . . is equal to \$100 but [the combined cash and demand deposits, 'M1'] . . . is equal to \$271 (\$100 + \$90 + \$81), neatly illustrating, albeit in a highly simplified way, how modern fractional reserve banking allows the creation of credit and hence of money (Ferguson 2008: 49-50).

It might be neat, but it is fiction. That form of fractional reserve banking has not existed for many decades. Instead, 'changes in [a private bank's] reserves [with a Central Bank] are unrelated to changes in lending . . . the textbook treatment of money . . . can be rejected', explained Seth B. Carpenter of the US Federal Reserve. Vitor Constâncio, Vice President of the European Central Bank, further explains that: 'Banks [are] taking first their credit decisions and then looking for the necessary funding and reserves of central bank money'. Simply put, this means that private banks create as much money as they determine is possible to be paid back, or that they can sell on to other institutions, given their assessment of prevailing market conditions (Ryan-Collins *et al.* 2011).

The key insight from a study of the history of money is that we have allowed the 'credit commons' to be privatised so that it can be accessed only by appealing to some bank to grant a 'loan' (Riegel 1944; Greco 2009). By 'credit commons' we mean our ability, as free individuals and organisations, to issue credit to whoever we choose, in a form and volume that we decide, without paying interest to a bank in that process. Today's monopoly on credit creation by private banks now drives a range of economic, social and environmental problems. One key problem is that as banks create the amount borrowed, but not the interest to be paid on that loan,

there is more debt owed to banks in the world than there is money to repay it.³ Although individually we might pay off our debts, collectively we are in debt forever, and paying interest to the banks. That makes increasing inequality a mathematical certainty. Inequality is rising worldwide, with 2% of the world's population controlling about half the world's wealth (BBC 2006). Extreme inequality is correlated with major social problems, including crime and ill health of all sorts—physical, mental and emotional (Wilkinson and Pickett 2009).

The interest that must be paid to 'borrow' our own credit from a bank is not the only parasitic element in this system. Another is the inflation of the money supply that accompanies government's deficit spending. Most national governments consistently spend beyond their incomes, sucking real value out of the economy in return for counterfeit money that the banks create for them under colour of law. This debasement of the currency inevitably results in higher prices of basic necessities in the marketplace (Riegel 1978). To these drains you can add the obscene salaries and bonuses that insiders pay themselves to run the system, and the periodic bailouts that they extract from governments.

A further problem arising from our money supply being bank-issued debt is that the availability of our money depends on the sentiments and intentions of bankers. If bankers lose confidence in our ability to pay, or our government's ability to pay, or simply choose to lend in a less co-ordinated way, then the whole economy has less money. That means less money for investment, wages and jobs. Which means we stop working for each other. That is one reason why there is mass unemployment while there remains so much that needs doing to enhance human existence. While professionals working on 'sustainability' continue to focus on initiatives and debates arising from their preoccupations with environmental protection or international development assistance, the Western financial crisis has been fundamentally restructuring the societies they exist within. Greece has suffered the greatest contraction in money supply during the recent crisis, with an annual contraction of about 20% (IMF 2012). Less money in circulation has meant cuts in wages and more unemployment, which has social consequences. The suicide rate in Greece increased by 40% in 2011 (*Guardian* 2011).

The role of banks in deciding where the newly issued money goes presents another problem, as it shapes the economy and society in line with their interests, while undermining the free market, civil society and governments. Banks choose whom to issue money to in line with their aims of seeking the largest return with the lowest transaction cost and risk. So they lend to things such as consumption and property speculation, rather than to small businesses. For instance, about 80% of bank lending in the UK of late has been for property purchases. This has made house prices rise 8000% since 1950, far above the inflation in prices of other goods

- 3 Hypothetically, if banks spent all their interest payments and also the velocity of monetary exchanges increased sufficiently, then the debts could be serviced without increasing amounts of lending. However, banks do not spend all their interest earnings, they add most of them to their capital and enable additional loans at interest.

or assets.⁴ The result of this inflation is that, if you are not fortunate enough to own a property, then the costs of rental or a mortgage means that many people are forced to work in jobs that are destructive or demeaning and to live lives they are not happy with (Bolchover 2005).

The most destructive problem from this monetary system is that it requires continual economic growth to justify the necessary growth in the money supply. This stems from the fact that money is created on the basis of interest-bearing debt, so that the amount owed increases with the passage of time. Compound interest is an exponential growth function, which means that debt grows, not at a constant steady pace, but at an accelerating rate. The global money system therefore requires the further continual expansion of debt in order to avoid financial collapse, as there is not enough money to service the ever expanding debts. New loans require further economic activity which, despite a small amount of decoupling economic growth from resource consumption, means an ever greater consumption of natural resources, and pollution of our biosphere (Lietaer *et al.* 2012a). Although in some countries increasing economic growth—the amount of money changing hands—may be what people desire to improve their lives, this monetary system imposes a growth imperative whatever the local context, and does not allow a ‘steady state’ economy to emerge. Some Nobel laureates and politicians have noted the inappropriateness of growth in gross domestic product (GDP) as a goal for societies, and various initiatives are working on new metrics, such as the European Union.⁵ Yet with an interest-charging system of money creation we have no choice but to grow the economy, otherwise there will less new debt issued to service existing debts, and there will be defaults, foreclosures, bankruptcies, unemployment, depression and, as history shows us, crime, extremism and even war (Greco 2009).

The competition among borrowers for an insufficient supply of money also results in pressure for externalising costs onto society and environment—pollution, for instance. The interest rates charged on loans also lead to greater discounting of natural assets, as money in the bank today can be worth more than trees in a forest (Lietaer *et al.* 2012a).

The dominant system of money and banking, based as it is upon usury and the centralisation of power and wealth, has visited untold misery and injustice upon the human race and the entire web of life on planet Earth. So what is to be done? There are growing campaigns for monetary reform, such as the Positive Money campaign in the UK. These call for government to pass legislation to end fractional reserve banking and give government the role of spending and lending new money into circulation. As the ability to give credit is something we all have, this government-centric solution would not be adequate in itself. Yet the Western ‘financial crisis’ has revealed to us that even this small step forward is not likely, and may even be impossible. Over five years ago the ‘credit crunch’ occurred due to toxic

4 www.positivemoney.org.uk/2012/09/house-prices-why-are-they-so-high-new-video, accessed 20 October 2012.

5 www.beyond-gdp.eu, accessed 20 February 2013.

loans pervading the whole financial system. The bailouts of the banks involved money that had to be ‘borrowed’ by governments from the banks, which then compromised future public spending by governments, threatening the future of social systems built up over many decades. Since the outbreak of the ‘crisis’ there have been no significant monetary reforms and few prosecutions. Instead, the corporate media turned their ire on governments and their inability to manage the fallout of the crisis. Sadly, it appears the majority of bankers, economists and politicians either do not know what to do in the public interest or are not sufficiently focused on serving that interest.

During 2012, one of the authors of this chapter, Jem Bendell, attended four high-level gatherings with politicians, senior bureaucrats, academics and business people, from around the world. He spoke with around 100 people and in nearly every conversation brought up the issues addressed in this chapter. His previous work had led him to believe that professionals from various sectors of society can collaborate for systemic change (Bendell 2009), and so he was hopeful of engagement on these issues. However, he discovered that, apart from two individuals, no one knew about the monetary causes of our multiple crises, and most did not want to put in the intellectual effort to understand, preferring agendas that they considered would be more politically and commercially acceptable. These were not ‘bad’ people, but people who were busy with other issues and, with one exception, they were not prepared to give themselves the time or take the risk to explore what an understanding of monetary systems might lead them towards. The implication is that, at present, it appears that the current monetary system will not be reformed; it can only be transcended.

Transcending the money system

The good news is that we need not be victims of a monetary system that is so obviously failing us. We have in our hands the power to reclaim the credit commons. We can reclaim that right both peacefully and without attacking the entrenched regime. It only requires that we each take control of our own credit and give it to those individuals and businesses that merit it—and withhold it from those that do not—and for us to apply our talents and energies to those enterprises that enhance community resilience (Hopkins 2008), sustainability, self-reliance and the common good.

It is possible to organise an entirely new structure of money, banking and finance, one that is interest-free, decentralised, and controlled, not by banks or central governments, but by individuals and businesses that associate and organise themselves into moneyless trading networks. In brief, any group of people can organise to allocate their own collective credit among themselves, interest-free. This is merely an extension of the common business practice of selling on open account—‘I’ll ship

you the goods now and you can pay me later', except it is organised, not on a bilateral basis, but within a community of many buyers and sellers. Done on a large enough scale that includes a sufficiently broad range of goods and services, such systems can avoid the dysfunctions inherent in conventional money and banking. They can open the way to more harmonious and mutually beneficial relationships that enable the emergence of true economic democracy.

Mutual credit clearing: moneyless trading

This approach is no pie-in-the-sky pipe dream. It is proven and well established. Known as mutual credit clearing, it is a process used by hundreds of thousands of businesses around the world that are members of scores of commercial 'barter' exchanges which provide the necessary accounting and other services for moneyless trading. In this process, the things you sell pay for the things you buy without using money as an intermediate exchange medium. Instead of chasing dollars, you use what you have to pay for what you need.

Unlike traditional barter, which depends upon a coincidence of wants and needs between two traders who each have something the other wants, mutual credit clearing provides an accounting for trade credits, a sort of internal currency, that allows traders to sell to some members and buy from others. There are reportedly more than 400,000 companies worldwide who, in this way, trade more than US\$12 billion dollars worth of goods and services annually without the use of any national currency (Z/Yen 2011).

Perhaps the best example of a credit clearing exchange that has operated successfully over a long period of time is the WIR6 Economic Circle Co-operative. Founded in Switzerland in the midst of the Great Depression as a self-help organisation, WIR provides a means for its member businesses to continue to buy and sell with one another despite a shortage of Swiss francs in circulation. Over the past three quarters of a century, in good times and bad, WIR (now known as the WIR Bank) has continued to thrive. Its more than 60,000 members throughout Switzerland trade about US\$2 billion worth of goods and services each year, paying each other, not in official money, but in their own accounting units called WIR credits (Greco and Magalli 2005).

Some systems are created with a more specific focus on community development, and involve individuals rather than businesses. One of the most significant of these is the Community Exchange System (CES), which was founded in Cape Town, South Africa in 2003 as a non-profit company by the community organiser Tim Jenkin. Since then it has grown to around 400 systems in over 40 countries, with over 20,000 users. The core of the system is a Web-based closed-source software that

6 WIR, an abbreviation for Wirtschaftsring-Genossenschaft, is the German word for 'we'.

allows members to trade with each other using the clearing of positive and negative balances between members when they trade. The currencies on the system are therefore backed by a promise to supply local goods and services. The website acts as an online marketplace with all transactions being recorded. There is also help with brokering trades. There are no printed circulating currencies associated with the CES systems. People on the different systems can now trade with people on another system in another part of the world, and CES publishes exchange rates between participating currencies based on the recommended minimum wage in each country. The costs of running the system, which include a manager and software engineers, are funded by national currency donations and a fee charged to users that is denominated in their local currency. Jenkin's efforts led to his receiving a fellowship by the Ashoka Foundation in 2007 (Lietaer *et al.* 2012b).

Back in Switzerland, Matthew Slater and Tim Anderson believed that community exchange systems, such as the SEL, would best be supported by free and open-source software. They founded CommunityForge in 2008, which now hosts 130, largely francophone, local exchange systems, with many more using its software tools and hosting their systems themselves. As a matter of principle, they chose to base their software on Drupal, a widely understood open-source platform, so that communities which use the software need not become dependent on CommunityForge, and would also benefit from a worldwide base of programmers and support. The volume of trade of three exchanges around Geneva that use CommunityForge is greater (if calculated according to minimum wage) than the renowned Berkshares alternative currency in the USA, which reports US\$22,000 circulation per year. As with CES, inter-trading between the local exchange systems is now possible, as well as payment by sending an SMS. In search of greater scale, CommunityForge has begun working with local chambers of commerce, to provide opportunities for socially-concerned businesses and organisations to trade together without money.

In times of economic recession, as bank-issued currencies become more scarce, alternative means of exchange through mutual credit clearing can become more attractive. In 2009, an alternative exchange system based on mutual credit clearing was introduced in the Greek port city of Volos. From jewellery to food, electrical parts to clothes, many goods and services are on sale through a local alternative currency called TEM. If someone sells a good or service, they gain credit, with one TEM notionally equivalent in value to one euro. They can then use their TEM earnings to buy whatever else is being offered through the network. The whole system is organised online, with members holding TEM accounts. Everyone can issue or earn credit, without the need for a loan from a bank. Everyone can exchange as much as they wish, without it being restricted by availability of euros, and everyone ends up returning to zero, so no one makes money out of issuing the currency or charging interest. The mayor of Volos supports the project and thinks it can co-exist with the euro (BBC 2012). A co-founder and co-ordinator of the Volos TEM, Yannis

Grigoriou, says that there are now many similar initiatives in towns across Greece.⁷ Some use CommunityForge software, some use Cyclos software, and others have developed their own.

The alternative exchange systems we mention here, and the systems that support them, are just some of thousands that have sprung up worldwide. The list of initiatives at www.complementarycurrency.org keeps growing. The low cost of computing power and the penetration of the Internet makes it far easier to establish and operate mutual credit clearing systems. People are developing them because they present a number of benefits to individuals, enterprise and whole communities. Mutual credit systems mean that underused assets can be matched with unmet needs, to the degree that people want, not to the degree that there is money around to complete a transaction. For businesses, these systems offer new sources of credit that are interest-free, reducing need for scarce bank-issued currency, as well as fostering a loyal customer base. As all credits and debits ultimately cancel each other out, there are not increasing amounts of money chasing the same amount of stuff or services, so the currency does not inflate. There is no interest charged upon the issuing of credit, so wealth is not extracted from those with lower incomes. As most mutual credit currencies are locally-focused, they encourage us to trade locally, so reducing our carbon footprint and promoting regeneration. At a time of increasing scarcity of natural resources, the more efficient exchange and use of existing resources is needed more than ever (Greco 2009).

Although many participants in mutual credit clearing systems are focused on their local communities, they increasingly understand themselves as participating in a common movement for change. In the village of Drapanos in Greece in October 2012, a two-day conference, co-facilitated by the authors of this chapter, brought together community exchange practitioners and experts from Greece and worldwide, at the European Sustainability Academy. To clarify and communicate the intention for their many initiatives, a declaration was agreed on 11 October 2012 (Box 14.1).

Scaling up mutual credit

The challenge for any network is to achieve sufficient scale to make it useful. The bigger the network, the more opportunities it provides for moneyless trades to be made: that is, more opportunities for capacity to meet needs. In the early stages, it may require some help to find those opportunities, but as the members discover each other and become aware of what each has to offer, the benefits of participation become ever more evident and attractive. Like Facebook, QQ, Twitter, LinkedIn and other networks that are purely social, moneyless trading networks will eventually

⁷ Personal communication, 10 October 2012.

Box 14.1 Drapanos Declaration on community exchange

- Individuals, communities and environments are the true source of our wealth and well-being.
 - Therefore we develop alternative means of exchange between individuals and organisations to foster more co-operative and equitable relations.
 - Although we may focus on our own communities, we share this principle with other communities.
 - Therefore we commit to work together in Greece and worldwide, to improve our practices, so that more communities connect to their own abundance.
 - Our efforts are part of a greater movement to make economic activity more accountable, socially beneficial and environmentally sustainable.
 - Our work must develop ever expanding circles of co-operation, exchange and learning.
 - We invite others who share these aims to join us in a growing movement and emerging profession on community exchange.
-

grow exponentially. The growth of mobile Internet will enable payment at point of sale, making these moneyless systems suitable for everyday transactions. These factors could mark a revolutionary shift in political as well as economic empowerment. It would be a quiet and peaceful revolution brought on, not by street demonstrations or by petitioning politicians who serve different masters, but by working together to use the power that is already ours—to apply the resources we have to support each others' productivity and to give credit where credit is due.

What will it take to make mutual credit clearing networks go viral the way social networks have? That is the key question, the answer to which has heretofore remained elusive. One reason is that many such systems have been developed for a small subset of individuals who are socially or environmentally motivated to participate in alternative lifestyles (Lietaer *et al.* 2012a). They soon become clubs of friends who gain personal benefit, but have limited incentive to expand, and little knowledge of how to bring businesses into their network. Therefore, the mutual credit clearing systems that are designed for businesses to participate are likely to achieve more scale. While the WIR has been an obvious success, it has not spread beyond Swiss borders. While commercial 'barter' has been significant and growing steadily for over 40 years, its volume is still tiny in relation to the totality of economic activity. What then is limiting such systems?

Our analysis of the commercial trade exchanges is that they appear to be self-limiting, and typically impose significant burdens upon their members. These include onerous fees for participation, exclusive memberships, limited scale and range of available goods and services within each exchange, the use of proprietary software, and insufficient standardisation of operations which limits the ability of

members of one trade exchange to trade with members of other exchanges. Most of these commercial trade exchanges are small, local and operated as for-profit businesses. Although small-scale, local control and independent enterprise are desirable characteristics, when it comes to building a new exchange system, something more is required. What the world needs now is a means of payment that is controlled by its users, while being globally useful. That means giving members of a local trade exchange the ability to trade with members of other exchanges easily and inexpensively, with little risk, without any new dependencies on exchange system service providers.

From our analysis of these limitations, we propose the following characteristics for alternative exchange systems to enable them to go viral:

1. Involve businesses that produce value for the local community in the design and governance of the mutual credit clearing system, and extend them preferential credit lines if they agree to offer their full range of goods and services at their usual everyday prices.
2. Make trade exchanges open to all with little qualification, but determine lines of credit (the overdraft privilege) according to each member's ability and willingness to reciprocate (measured, for example, by his/her record of sales into the network), or through an insurance provided by other members, or the offering of collateral in case of default.
3. Manage trade exchanges in transparent, open and responsive ways, without the organiser running large negative balances unless agreed by the majority of users for defined purposes.
4. Provide members a free and unrestricted option to export all their own data, including contact information of those they have traded with, in useable formats, according to emerging protocols.
5. Seek interoperability with other trade exchanges, according to emerging protocols, so that members can trade with others on compatible exchanges. Also, seek interoperability with the growing number of companies and organisations that enable the sharing of goods and services (systems called 'collaborative consumption' (Botsman and Rogers 2010)).
6. Develop revenue streams that rely on value-added services, such as advertising, brokering trades or more sophisticated payment systems, so that membership fees and transaction fees can be charged only in the mutual credit currency.
7. Exchange experiences and ideas with others working in this field, as participants in a new movement and new profession, rather than seeing others as competition.

As trade exchanges master these dimensions of design and operation, they could become models for other exchanges to follow. Then the rapid growth phase could

begin, leading eventually to an Internet-like global trading network that will make money obsolete and enable a freer, more harmonious society to emerge.

Implications for movements and professions in sustainability and transition

For those of us who recognise the monetary driver of many of our social and environmental ills, the mutual credit clearing systems we have described above are a crucial part of the solution. Some people working on the sustainable monetary system agenda are currently focusing on other initiatives and campaigns. Increasing numbers focus on national and international monetary reform, to end non-reserve banking and give government the power to issue new money. The difficulty in obtaining support for such a reform is significant, perhaps impossible before a collapse, as we discussed above. Developing independent means of exchange, through mutual credit clearing, is one way to become less dependent on the bank-money system, and thus engage in national monetary reform debates from a position of greater strength. In addition, even if such a reform were possible, it would not in itself empower individuals and communities to control their own levels and direction of credit, which is key for a well-functioning society.

Others call for a return to the gold standard, arguing that this would curb inflation and promote economic stability. However, there were numerous monetary crises during periods on a gold standard. As the banks control gold and could still issue many more promises of gold than they store, so a gold standard would not, in itself, do anything to reduce the power of the banks in our economy, and the negative effects of their dominant role in issuing credit at interest. In addition, introductions of gold standards in the past have led to contractions in money supply and therefore widespread hardship (Boyle 2002). Those advocating for the role of gold in monetary systems may need to better understand the functions of money, rather than relying on misplaced assumptions about ‘real’ money (see Box 14.2, adapted from Greco 1990).

Another response is the issuing of local fiat currencies, where the issuer asks the users to believe the currency has value in itself. Such systems can stimulate local trade, and there are some success stories such as with Banco Palmas in Brazil (Lietaer *et al.* 2012b). However, many of these currencies eventually suffer from a lack of confidence, due to over issuance and counterfeiting, as happened in Argentina after the financial collapse. Therefore, some local fiats back their currency with bank-issued currency, which means the currencies must be bought with bank-issued currency. The local currencies in Brixton and Bristol in the UK, for instance, use British pound-backed systems. Such systems may encourage money to circulate more in the local economy, and can provide a pool of bank-money savings that can be loaned at low rates to local businesses. However, they do not provide a local

Box 14.2 The role of gold

In discussions of the role of gold, and a possible return to a gold standard, commentators typically fail to understand that 'measure of value' and 'means of payment' are two distinct functions of money that require two distinct approaches. We need not be restricted by the availability of gold or any particular commodity to achieve the facilitation of exchange of value. Neither should we be subject to credit instruments (currencies) issued by governments or central banks, which are almost always badly abused.

Much confusion has arisen from the fact that 'legal tender' laws have obliterated the distinction between a measure of value and a means of payment. A vendor who accepts a particular currency in payment, wants to know that s/he can receive equivalent value for it when s/he decides to spend it. What gives strength to political monies, such as the dollar, the euro, the pound, etc, is the fact that governments have enacted legal tender laws that obligate everyone in their jurisdiction to accept their currencies in payment at face value. Thus, governments and central banks are free to exploit their people and to squander the fruits of their labour by injecting into the economy money that they themselves create through loans yet which must be accepted by everyone in that jurisdiction.

It is this universal abuse of the money power by countries around the world that has caused the majority of reformers to advocate a return to hard monies such as gold and silver, and has prejudiced their minds against credit money in general. It is undeniable that political monies have been politicised, monopolised and badly abused by governments and central banks, which has led to a variety of economic and political ills, including inflation, depressions, unemployment, maldistribution of income and wealth, and, not least of all, war.

It is true that gold can be an inflation hedge by serving as a store of value, and thus provide some measure of security when political currencies are abused by improper and over issuance (causing inflation), but a return to gold as a means of payment would not provide an exchange mechanism that is sufficiently flexible to enable the economy to function optimally.

The answer lies, not in reverting to more primitive forms of exchange, but in perfecting the more evolved forms, which utilise the credit of private producers who put actual value into the economy. Credit money has the great advantage of being flexible enough to accommodate the exchange needs of an economy. Unlike gold, or any other physical commodity, it can be entirely sufficient to enable the transactions that people may wish to make. Further, its availability does not require the application of enormous amounts of labour and resources to mine and refine it, nor does its creation result in the environmental damage that attends mining operations.

If gold has a monetary role to play, it is in providing an objective measure of value that is independent of any political currency unit. However, why not define a value unit that is more stable and much harder to corner, hoard or manipulate? A composite value standard composed of a 'market basket' of basic commodities that are freely and actively traded could provide a much better benchmark for measuring the relative value of all goods, services and financial instruments, although would require better regulation of international commodities markets than currently occurs.

autonomous source of credit, or liquidity. As such, people need to be persuaded that, due to their ethics, a sense of local pride or their liking of the designs of notes, they want to buy the local currency with their national currency. Consequently, such systems are not appealing to communities and businesses with cash flow problems, and their potential for scaling up is limited. In essence, these local currencies are not local at all, as the source of credit is the international banking system that issues the national money that is required to buy the local notes. They are, in essence, the same as the gift cards that are issued by many retail establishments. To transition to more fair and sustainable societies requires a transition away from dependence on bank-issued credit as our money supply, not a repackaging of that supply with local imagery. Many communities, both in the UK and North America, have come to realise, after many years of experience, the limited potential of currencies that are sold and redeemable for national currency. **Mutual credit clearing is the true currency of transition, because it offers means of exchange that does not rely on exploitative bank-issued interest-bearing debt as its original source.** The bank-money backed local currencies can be a step in the right direction if they do not dominate the policy space and professional standards for alternative currencies, and use their notoriety to then launch local mutual credit clearing systems. That is a difficult challenge. One option is to make the digital versions of the local currencies no longer redeemable for national currencies, and to be issued through a mutual credit system. The legal and communications issues around such a change will need careful handling. The options will depend on the contracts of initial sale of the currencies backed by national monies. Given these difficulties, our advice to communities and business networks that seek a monetary dimension to their transition effort, is to adopt mutual credit clearing in the first instance.

The organisation of mutual credit clearing exchanges is an essential first step in the transition to sustainability. It provides a locally controlled means of exchange (i.e. local liquidity based on local productive capacity). But, it will also be necessary to address a community's needs for a store of value and the financing of capital projects with long time-frames, the funding of government delivery of public services or the addressing of existing government debt levels. New innovations will be required to enable people to have better choices for storing value in a semi-liquid form rather than fixed assets. Systems for financing long-term projects with mutual credit will also need to be developed, along with ways for the organisers of mutual credit clearing systems to fund public works according to the will of their system members. In addition, relations with local and national governments will need to evolve, with governments accepting payment of taxes on mutual credit clearing transactions in the unit of the clearing system, rather than requiring payment in the national currency.

As mutual credit clearing grows, governments and foundations will begin to engage with them more, and seek to influence practices. How this relationship evolves will be key to the ultimate social usefulness of practitioners in the field of alternative currencies and exchange systems. Relations with the European Commission (EC) is a case in point. It has begun to recognise this as an area deserving

greater attention. The EC funded a project called SPREAD Sustainable Lifestyles 2050,⁸ which issued conclusions on future research and policy for scaling up sustainable lifestyles. One of the five pivotal issues in SPREAD's First Policy Brief was: 'The emergence of non-monetary systems: reward schemes, alternative currencies and the principle of reciprocity to incentivise people to rethink the value of services and goods in terms of their actual costs and benefits' (SPREAD 2012b: 15). It recommends 'a toolbox for change makers' to 'enable the transition' that should include 'alternative currencies and reward schemes . . .' (SPREAD 2012a: 5). In its Memorandum on Directions for Future Social Scientific Research on Sustainable Lifestyles SPREAD states that: 'The impacts of alternative money systems, complementary currencies, micro-credit, micro-finance etc. on consumption patterns, well-being, health and lifestyles' (SPREAD 2012b: 10) needs to be researched, as well as 'how credit systems can be designed to support sustainable lifestyles' (SPREAD 2012b: 10). This builds on the findings of one of its workshops, that 'innovation is needed to make communities more cost-effective and capable to interact conveniently . . . [for this] they also require new forms of non-monetary exchange, such as reward and credit systems, with local rules (alternative currencies)' (SPREAD 2011: 8). That is a positive development, but the involvement of large donors might begin to influence strategies in unhelpful ways. For instance, in 2012, EU funds have been provided for development, promotion and evaluation of local currency systems that are backed by bank-issued debt-money, rather than mutual credit clearing systems. Practitioners who engage in this field to help the transition to greater sustainability will need to devote more attention to the truly transitional approaches.

In this chapter we have described how a new movement and a new profession is emerging in the area of alternative currencies and exchange systems, and the key role of mutual credit clearing (as recognised in the Drapanos Declaration). As such, it will require more analysis, knowledge sharing and capacity building. Here, then, is a role for institutions involved in research and education. Our literature review of journals of international development, human geography, business and management, sociology, environmental policy, as well as specialist journals on business ethics and corporate responsibility, has concluded that the implications of mutual credit systems for either business or sustainable development have not been well-researched or recognised (as has been stated in previous reviews; Schroeder *et al.* 2011). There are books on the topic (for instance Greco 1990, 1994, 2001, 2009; Lietaer, *et al.* 2012b) and a specialist journal (*International Journal of Community Currency Research*) but mainstream academic analysis has not focused on them. There is much to learn about good exchange system design and management. For instance, as we mentioned above, in Argentina the community currencies helped people during the financial collapse, but they subsequently collapsed due to poor (and sometimes fraudulent) management and counterfeiting, which eroded confidence. Avoiding the repetition of these mistakes will require professional approaches informed by good research, education, and oversight. With this

8 www.sustainable-lifestyles.eu, accessed 21 February 2013.

in mind, practitioners present at the October 2012 workshop in Greece identified the issues they believe to be important to advancing the field (Box 14.3).

Box 14.3 Emerging issues for practitioners in community exchange and mutual credit clearing

The following questions were identified by participants during a workshop on community exchange at the European Sustainability Academy, Greece, on 11 October 2012. They are listed in order of priority, according to participants' expressed preferences:

- How can community exchanges be well governed in ways that encourage initiative to be taken by more and more participants?
 - How can we work together on common values and identity, and then communicate that attractively?
 - How can businesses be better engaged for mutual benefit?
 - How should community exchange systems and their members relate to the tax authorities? What principles and practical issues are there to consider?
 - What issues are there to consider, and options, for software systems and potential payment systems?
 - How can political support for community exchange systems be increased, both nationally and internationally?
 - How to grow the networks and increase diversity of offers, such as food, to increase convenience.
 - Can credits be issued by co-ordinators to contract community work, to provide public goods and, if so, how, and with what relationship to local governments?
 - How can community exchanges relate to each other within a country and worldwide?
 - How can capital intensive projects be supported by community exchange systems, or in relation to them?
 - What are the limitations, or even potential negative effects, of community exchange systems on positive social change?
-

In addition to working with the issues that emerge from practitioner dialogues over time, research will also need to mobilise relevant theories and provide greater context to help inform the policy and practice for positive social outcomes. Some of these broader questions include:

- What kind of finance (grant-funding, private investment, community financing or self-sufficient) and co-operation strategies do mutual credit clearing systems embrace in order to increase impact? How do they finance themselves sustainably in ways that do not restrict their catalytic function, and

what is the role for non-profit, for-profit, small- and large-scale enterprise in community exchange systems?

- What are the technological issues, including software, software standards, skills, resources, intellectual property and digital privacy issues that are key to scaling these exchange systems?
- What institutional, political, cultural and economic environments favour the development and survival of mutual credit systems, their potential for growth and positive outcomes (in terms of local economic development, jobs, well-being and the environment)? How can mutual credit systems be encouraged and fostered in policy-making processes at local, national or international level?
- How do mutual credit systems impact on consumer-producer relations, behavioural change and community cohesion?
- What is best practice in the design, management, evaluation and funding of mutual credit systems?
- What metrics are appropriate to measure the health and impact of mutual credit systems?
- How do executives in businesses, local government, national government and civil society best learn about mutual credit systems and explore relevant roles, risks and opportunities?
- What kind of skills are helpful for developing and scaling-up mutual credit systems?

We map out these initial lines of inquiry not only to inform future research, but also to indicate the breadth and depth of this field of mutual credit, and therefore the need for large-scale engagement by non-governmental organisations, chambers of commerce, local governments, aid agencies and foundations. If you are new to this topic, then the complexity of the field may seem daunting, just as the invitation to understand mainstream banking and its effects on economy, society and environment can be daunting at first. That is why you are needed. Too many people turn away from monetary critiques and solutions because it takes them beyond their comfort zone. **Yet lasting solutions to most economic, social and environmental ills will not be found without fundamental transformation in the way money is issued and credit allocated.** It is also worth pursuing because engagement with this topic can be personally rewarding, as it encourages a shift of awareness that can deeply influence one's outlook on life. It is something that must be experienced to be understood, but we can try to explain.

Many of us also assume that such ideals as ending hunger are not affordable. Yet there seems to be ample money for spending on weapons, lavish buildings or luxuries. We assume that this indicates something essential about human nature or the way we function in large groups, such as nations. Many people assume that

human nature is naturally competitive and selfish and thus needs to be moderated or controlled by force for the common good (Crompton 2010). By analysing the monetary system, and seeing the energising effect of creating alternatives, we gain insight on a different perspective. We see evidence that some of the selfishness arises from a fear of scarcity that is based on the current monetary system. We see evidence that the reason why there is money for skyscrapers but not free schools is partly an outcome of how the issuing of credit is in the hands of bankers seeking high returns, low transaction costs and secure collateral. We begin to see people, in general, to be more like the people we know the best, our closest friends; that is, as people who care.

We have found that many people working towards 'sustainability' assume that it requires new checks and balances on personal behaviour, and calling on each other to be more responsible; pay more for this, don't travel on that, switch off this, don't buy that. Yet by working on monetary issues, we begin to see that people and communities are being hampered in their ability to organise for mutual benefit. We begin to see that through mutual credit clearing, communities can connect to their own abundance. We begin to see that people can lose the delusion that 'money' is wealth and recognise, as Cumbria's John Ruskin wrote more than 150 years ago 'THERE IS NO WEALTH BUT LIFE' (Ruskin 1860, author's capitalisation). Although the past decade has seen a shift towards sustainability professionals couching their message in a positive way, about increasing personal well-being, in general the discourse is one of progress through limitation, rather than through reclaiming freedoms. Instead, by working on monetary issues a liberational environmentalism is possible, where we seek to unleash human nature, not curb it. Our goal is to liberate the wealth of communities, to unleash sustainable ways of living.

The past 20 years of environmentalism, and indeed other areas of social concern such as human rights and poverty alleviation, have seen a focus on incorporating these concerns into existing institutions, whether business, government, media, civil society, and into existing cultural assumptions, norms and values (Crompton 2010). This may have seemed like a good tactic to some, and is one where individuals pursuing it in their own work can pursue well-paid careers in relevant institutions. However, this attempt at incorporation reflects a fundamental insecurity about one's views and roles. It can be fundamentally debilitating, because it closes one's mind to analyses which sound too challenging to the project of incorporation. We described earlier our sense that senior people in big business, banks and governments are unlikely to lead the necessary changes. What, then, is the role for those of us who work on social or environmental issues, who now understand the necessary transformation of monetary systems? If not us, who? If not now, when?

Conclusion

There can be no intentional transition to a fairer and more sustainable world while the current monetary system remains dominant. A system where commercial banks issue our money supply as interest-bearing debt creates an unstable, unsustainable, unfair and unintelligent economy. Despite the financial crisis, and the way it has accentuated the injustices and ill effects of the current system, we know of no mainstream politicians organising effectively to deliver substantial monetary reform. People seeking transition cannot wait, but can transcend the existing system by developing mutual credit clearing systems. Promisingly, there are now thousands of such initiatives worldwide. With tools such as the Internet, cheap computing power and mobile telephony we now have the means available to massively scale up the direct clearing of credits among buyers and sellers. For such scaling to occur, mutual credit systems need to engage businesses as well as individuals, and learn from the successes and limitations of existing systems. A whole field of practice, inquiry, education and, eventually, policy is emerging that requires more active and informed participation by professionals working in the sustainability field.

Community currencies and exchange systems provide an essential toolkit for community and self empowerment, but they need to be designed in such a way as to make us less dependent upon political money and banks. Private exchange media should be issued on the basis of the value created and exchanged by local producers, especially the small- and medium-sized businesses that form the backbone of any economy. This means that a currency must be *spent* into circulation *not sold* for money. Some of the new currencies that have been gaining the most media attention are sold and fully-backed by national currencies and are therefore not necessarily part of a transition effort. For them to become steps towards transition, their initial success in gaining local support will need to be followed by adopting mutual credit clearing as their model. How they achieve this will determine their longer-term contribution to transition.

Communities around the world are showing that we can design currencies and credit systems that are always in sufficient supply to help match underused assets with unmet needs. Currencies and exchange systems can be designed to connect communities to their own abundance. This realisation presents deep implications for the concept and pursuit of sustainability or transition—to move to a message of freedom, where we might be freed to live according to our loving natures in harmonious thriving communities.

So long as people depend upon the money that bankers create for their material ‘salvation’ and admission to the ‘good life’, so the systematic destruction we have described above will continue, as well as the capture of politics and culture by banking interests. Therefore, the challenge for sustainability professionals is also a personal one—to find ways to move themselves and their own organisations away from dependence on the current money and banking system. In doing this, we

may discover new truths about ourselves, our neighbours, our communities, our nations and our world.

References

- BBC (2006) 'Richest 2% own "half the wealth"', Andrew Walker (5 December 2006; news.bbc.co.uk/1/hi/6211250.stm, accessed 26 March 2013).
- BBC (2012) 'Greece bartering system popular in Volos', Mark Lowen (12 April 2012; www.bbc.co.uk/news/world-europe-17680904, accessed 26 March 2013).
- Bendell, J. (2009) *The Corporate Responsibility Movement* (Sheffield, UK: Greenleaf Publishing).
- Bolchover, D. (2005) *The Living Dead: Switched Off, Zoned Out—The Shocking Truth About Office Life* (Chichester, UK: Wiley).
- Botsman, R., and R. Rogers (2010) *What's Mine Is Yours: The Rise of Collaborative Consumption* (New York: HarperCollins).
- Boyle, D. (2002) *The Money Changers: Currency Reform from Aristotle to E-cash* (London: Earthscan).
- Crompton, T. (2010) *Common Cause: The Case for Working With Our Cultural Values* (Godalming, UK: WWF).
- Ferguson, N. (2008) *The Ascent of Money: A Financial History of the World* (London: Allen Lane).
- Graeber, D. (2011) *Debt: The First 5,000 Years* (New York: Melville House).
- Greco, Jr., T.H. (1990) *Money and Debt: A Solution to the Global Crisis* (Tucson, AZ: Greco Publishing).
- Greco, Jr., T.H. (1994) *New Money for Healthy Communities* (Tucson, AZ: Greco Publishing).
- Greco, Jr., T.H. (2001) *Money: Understanding and Creating Alternatives to Legal Tender* (White River Junction, VT: Chelsea Green).
- Greco, Jr., T.H. (2009) *The End of Money and the Future of Civilization* (White River Junction, VT: Chelsea Green).
- Greco, Jr., T.H., and T. Megalli (2005) 'An Annotated Précis, Review, and Critique of Prof. Tobias Studer's *WIR and the Swiss National Economy*', Reinventing Money (reinventingmoney.com/documents/StuderbookCritique.pdf, accessed 26 March 2013).
- Guardian* (2011) 'Greek woes drive up suicide rate', Helena Smith (18 December 2011; [http](http://www.guardian.co.uk), accessed 26 March 2013).
- Hopkins, R. (2008) *The Transition Handbook: From Oil Dependency to Local Resilience, Transition Guides* (Totnes, UK: Transition Network).
- IMF (International Monetary Fund) (2012) *World Economic Outlook: Growth Resuming, Dangers Remain* (Washington, DC: IMF, www.imf.org/external/pubs/ft/weo/2012/01/pdf/text.pdf).
- Lietaer, B., C. Arnsberger, S. Goerner and S. Brunnhuber (2012a) *Money and Sustainability: The Missing Link* (Winterthur, Switzerland: Club of Rome).
- Lietaer, B., M. Kennedy and J. Rogers (2012b) *People Money: The Promise of Regional Currencies* (Axminster, UK: Triarchy Press).
- Meadows, D.H., D. Meadows, J. Randers and W. Behrens III (1972) *The Limits to Growth* (New York: Universe Books).
- Riegel, E.C. (1944) *Private Enterprise Money* (New York: Harbinger House).
- Riegel, E.C. (1978) *Flight From Inflation: The Monetary Alternative* (Tonopah, NV: The Heather Foundation).

- Ruskin, J. (1860) 'Essay IV: Ad Valorem, section 77', *Unto This Last* (muff.uffs.net/skola/dejum/ruskin/texts/unto-this-last/unto_this_last.pdf, accessed 21 February 2013).
- Ryan-Collins, J., T. Greenham, R. Werner and A. Jackson (2011) *Where Does Money Come From? A Guide to the UK Monetary and Banking System* (London: New Economics Foundation).
- Schroeder, R.F.H., Y. Miyazaki¹ and M. Fare (2011) 'Community Currency Research: An Analysis of the Literature', *International Journal of Community Currency Research* 15.A: 31-41.
- SPREAD (2011) 'Emerging Visions. A Work in Progress from the SPREAD Vision Workshop', SPREAD Vision for Sustainable Lifestyles in 2050, Milan, 21–23 September 2011, Politecnico di Milano—Indaco Dept.
- SPREAD (2012a) 'Emerging Visions for Future Sustainable Lifestyles. Preliminary Policy Considerations from the SPREAD Sustainable Lifestyles 2050 European Social Platform Project. Developing Pathways to More Sustainable Living', First Policy Brief, *SPREAD Sustainable Lifestyles 2050*.
- SPREAD (2012b) 'Memorandum on Directions for Future Social Scientific Research on Sustainable Lifestyles', *SPREAD Sustainable Lifestyles 2050*.
- Tucker, A. (2011) 'The Beer Archaeologist: By Analyzing Ancient Pottery, Patrick McGovern is Resurrecting the Libations that Fueled Civilization', *The Smithsonian Magazine* (www.smithsonianmag.com/history-archaeology/The-Beer-Archaeologist.html#ixzz2AX7yutqa, accessed 26 March 2013).
- Wilkinson, R., and K. Pickett (2009) *The Spirit Level: Why Equality is Better for Everyone* (London: Penguin).
- Z/Yen (2011) *Capacity Trade and Credit: Emerging Architectures for Commerce and Money* (London: Z/Yen).

Professor **Jem Bendell** is a strategist and educator on social and organisational change, with 18 years specialising in responsible business development, alliances for sustainable development, transformative philanthropy and sustainable currencies. With over 100 publications, including United Nations' reports, he is an award winning authority on business and sustainable development, and has helped create a number of leading multi-stakeholder alliances.

Thomas H. Greco Jr. is a community economist who writes and speaks on the subject of free market alternative currency and monetary systems. A former university lecturer in engineering, he has authored four books on monetary theory and how monetary alternatives can empower communities. These include his 2009 best-seller *The End of Money and the Future of Civilization*.