FINANCIALISATION IN THE EUROPEAN UNION – the Basic Systemic Problems, and Possible Policy Solutions

1. THE KEY FEATURES OF FINANCIALISATION

The Finance, Insurance and Real Estate (FIRE) Economy

Financialisation is a process in which the FIRE economy (Finance, Insurance, and Real Estate) takes up an ever larger share of transactions, and FIRE beneficiaries take an ever larger share of aggregate claims on the money supply. Prof. Michael Hudson goes into considerable detail of how financialisation works in his new book, 'The Bubble and Beyond'. A useful shorter summary is an article by Dirk Bezemer and Michael Hudson, 'The Bubble Economy and Debt Deflation'.

A key feature of financialisation is that FIRE sector professionals are successfully diverting an increasing share of total global (and European) income and wealth to their own accounts, by putting in place 'toll booths' that allow them to take economic rent from real-economy activities to which they contributed no productive impulse. The principal mechanism by which this occurs is through loading the household sector of the economy down with ubiquitous debt, generated by banks and quasi-bank financial companies in ever larger quantity: credit card debt for every-day purchases; consumer debt for larger purchases such as automobiles; ever higher levels of mortgage debt in self-reinforcing housing price bubbles; and student loan debt, so that students training for a professional career are encumbered by a heavy debt load even before they begin their careers, enabling the banking system to garnish their wages from their first day of work. In essence, the banking system, through its power to create credit and debt, has figured out how to levy privatised financial taxes on nearly every human activity.

How money arises in the banking system

It is important to recognise that in our banking and monetary system, nearly all the money in existence ('money' as defined in monetary aggregates like M3, composed mostly of electronic bank deposits) is created through the issuance of credit (and simultaneous creation of debt) by commercial banks. The aggregate money supply, measured as a total of all bank deposits, is matched by an equal volume of debt obligations: when a bank issues a new loan for €100,000, it records the transaction as a credit to the borrower's bank account, and as an asset in its loan portfolio. Under the conventions of double-entry bookkeeping, these two numbers net out to zero. This means that essentially all the money in circulation came into existence as debt, and if you have a net wealth position of, say, €35,000, that means others in the Euro currency using economy must balance your happy position by labouring under a net debt position of €35,000. Instead of talking about 'money', perhaps we should talk about 'credit/debt', the two Janus faces of money.

The mostly unproductive purposes for which new credit is created

An additional key feature of financialisation is that the great majority of the new debt created is for *non-productive purposes*. Only a small minority of new credit is issued to productive enterprises to expand their operations, or to entrepreneurs to start up new ventures. The bulk of new credit/debt is created either to finance consumption (through credit card debt, consumer loans, or second mortgages on houses in rising housing markets), or for asset price speculation (bets on the prices of existing assets). The largest share of credit/debt is created for purposes of buying buildings – or, more pejoratively, of speculating in real estate markets.

Excessive mortgage lending

In Anglosphere countries, around 80% of credit/debt is created in the form of real estate mortgages, and so mortgage lending is responsible for creating the large majority of the money supply.

Real estate bubbles are not caused primarily by an excessive number of people looking for an inadequate supply of housing to live in; rather, bubbles are caused by excessive mortgage lending, in a self-reinforcing process. Asset prices are driven up by credit issuance; increases in asset prices stimulate further credit issuance as speculators buy assets in the hope of a further price rise, so they can sell at a profit, without actually having done any work to earn this gain.

Debt-financed buying and selling of real estate is not, however, the only flavour of debt-financed asset price speculation. Other examples include commodity price speculation and leveraged buyouts. Commodity price run-ups and price crashes are engendered, sometimes deliberately, by professional speculators (investment fund managers), who regularly influence commodity prices through coordinated buying and short-selling to manipulate the prices of oil, grains, metals, and other commodities, as well as stocks, bonds, and various financial derivatives.

Leveraged buy-outs

Some financiers (e.g. Mitt Romney, during his time at Bain Capital) specialise in leveraged buyouts (LBOs) of real-economy companies, i.e. in buying real-economy companies with borrowed money. If the money for LBO transactions is borrowed from banks, then new credit/debt are created to buy an existing company; this increases the money supply without increasing the underlying volume or value of production. Moreover, it gives legal ownership of the company to an LBO artist who had precisely no role in building the productive company or any of its assets, yet now has full decision-making authority over the company and its financial affairs, and the right to pocket whatever net income is left over after his costs of borrowing money are covered. This is 'financialisation' in one of its purest forms.

In some cases, a leveraged buyout of a company is followed by the new owners' loading the company down with huge amounts of debt, and then looting the company's balance sheet by issuing 'special dividends' to themselves. To enable the company to pay down the crushing debt incurred in the buy-out (and any subsequent debt-financed dividend pay-out), employees may be fired, their wages and benefits cut back, their company pension funds looted, new investments in plant and equipment curtailed, all in the service of re-allocating the net income of the company to the primary task of paying down the debt incurred by the LBO artist for the purpose of buying the company (and, in some cases, as previously noted, by forcing it to borrow additional money, post-takeover, paid out to the new owners as 'special dividends'). In some cases, the company is broken up and its units sold on, in order to repay the LBO debt more rapidly, take capital gains profits, and move on.

Money supply growing faster than real-economy productivity

In Western industrialised countries, only a small proportion of new debt is incurred in the process of financing new productive enterprises, e.g. construction of a factory or installation of a wind farm. This means that the total volume of credit and debt has for many years been growing faster than the total volume of real-economy production of tangible goods and non-financial services. This is the basic reason for inflation.

The reason why this situation is tolerated is that it benefits the professional operators of the FIRE economy's banking and finance systems. These non-productive loans are issued using mechanisms that allow bankers to divert some of the cash flow from the deal to their own benefit. FIRE professionals are able to use their privileged specialist positions within the banking system to create or buy up legal claims to the cash flows and wealth stocks of the economy, including the real productive sectors. In this way, they have been systematically positioning themselves as the 'owners' of an increasing proportion of total credit (total debt-free money) and of total real-economy assets, without themselves designing, making, or producing anything other than "financial products".

Everyone else, of course – the debtor class, which is vastly more populous than the creditor class – is cast in the role of debt peonage to this financialisation-engendering creditor class.

Systemic analysis and redesign, not mere moral outrage, are needed

There is little point in decrying the immorality (or amorality) of the FIRE sector's individual and corporate participants. What is necessary is a systemic understanding of how the system works, including an understanding of the fundamental features that allow parasitical financial manipulation to entrap the great majority of the population in debts created for non-productive purposes, owed to a non-productive minority creditor-class.

With this understanding in hand, we must develop and test systemic reform proposals – proposals for a fundamentally redesigned banking and monetary system that rewards productive enterprise, useful work, and genuine merit, rather than insider manipulations of the financial system.

My view is that such a clear and deep understanding of the monetary, banking and financial system can only be obtained using new tools of analysis and synthesis. Specifically, *we need a new systems dynamic monetary stock-and-flow modelling software platform that will allow clear visualisation of the dynamics, quantitative relationships, and feedbacks between components of the monetary economy.*

New tools for financial systems analysis and redesign

Imagine a representation of the monetary stocks and flows in the economy, represented as a picture of water storage tanks and interconnecting water pipes, with two colours of water flowing around and accumulating in various storage tanks: red for debt, blue for credit. The storage tanks might be labelled “central bank”, “commercial bank”, “Government Treasury”, “least wealthy 50% of households”, “most wealthy 0.1% of households”, etc. In order for individual policy-makers in the Eurozone to understand intuitively (at least at an overview level) what is going on in the banking system and what the underlying reasons for the Euro crisis really are, it will be necessary, in my view, to build a monetary system modelling platform that has excellent analogue-visualisation capabilities.

Moreover, before we settle on a specific package of major reforms, we must use a systems-dynamic modelling environment to model the likely impacts of those reforms on all the key macro-economic indicators we care about: employment, aggregate debt, distribution of income and wealth amongst population deciles, greenhouse gas emissions, and so on.

The financial system is a globally interlinked software system

Creating an accurate systems dynamic software model of the monetary and banking system is a necessary and natural preparation for a critique of the current system and of any systemic reform proposal initiative, because the global banking and monetary system is, in concrete form, a set of specialised software programs running on an interlinked system of secure computers. FIRE sector professionals are people who understand the intricate operational details of this complex software system. They are ‘expert users’ of the world’s banking and monetary system software. The essence of their activities is to work with legal claims to stocks and flows of credit and debt. They use their specialist knowledge of monetary and banking systems to participate in direct manipulation of monetary stocks and flows, and their knowledge of finance-related legal codices to manipulate the legal documentation governing these monetary stocks and flows to their own personal and corporate advantage.

Moreover, the FIRE sector has been permitted to largely write its own rules. FIRE professionals have been allowed to engage in largely unsupervised experimentation in recent decades, particularly since 1980. They have been allowed to invent large numbers of new “financial products”, with no prior screening to test the impacts of these “products” on the key macro-economic variables affecting the welfare of the broad population: statistical measures of employment, net income per capita, private and public debt per capita, and distribution of wealth.

The revolving door

Members of the FIRE sector's informal guild have also dominated regulatory enforcement and law-making, through a revolving-door relationship between the banking sector and government. For example, many of the most senior officials in regulatory agencies in the USA, and many of its Treasury secretaries, are alumni of companies like Goldman Sachs, the most powerful and successful financialisation organisation in the USA. In Europe, both Mario Monti and Mario Draghi are Goldman alumni. Mr. Draghi, new head of the European Central Bank, is the former managing director of Goldman Sachs International.

FIRE professionals have become very skilled at manipulating the global monetary and banking system to generate the outcome they seek – which is to arrange for their own benefit, in favour of their own personal and corporate accounts, an increasing burden of legal claims to ownership of a portion of a huge variety of different cash-flows ('toll booths' on the financial-flows data highways). Again, this is achieved in large part by making sure most people are in permanent debt.

Wide awareness of basic system flaws and alternatives is necessary

A crucial step in the long and difficult process of freeing the bulk of the population from life-long debt peonage to the FIRE creditor class is to break the monopoly of banking-systemic understanding held by FIRE professionals. This will require a new Open Source systems dynamic monetary stocks-and-flows modelling platform. With such a platform, an army of volunteers can aggregate and refine their understanding of the monetary and banking system, and test policy hypotheses for systemic reform.

CREDITORS VERSUS DEBTORS: HAVE EU POLICY ELITES CHOSEN THE WRONG SIDE?

The Euro crisis is a direct consequence of the inherent dynamics of a monetary, banking and financial system in which a very large number of debtors are in debt to a small minority of the population who are net creditors, and the bulk of credit/debt is created by the banking system for non-productive purposes of asset price speculation, rather than for productive investment.

Credit and debt are present 1:1 in the banking system

Credit and debt are co-created by the commercial banking system, in equal volumes. At the end of the day, total Eurozone credits and total Eurozone debts, added together, sum to zero. The problem is that those with the legal power to create new credits and debts have a powerful incentive to create new credit/debt (with themselves as the creditors). Unfortunately, as we have noted, most of that credit/debt is created for non-productive purposes, especially for real estate loans on existing houses, but also for consumer loans, credit card loans, and for large-scale leveraged speculation on existing assets (commodities, stocks and bonds, other financial instruments, or LBOs of real-economy companies).

This creation of new credit and debt without any corresponding creation of new production or non-financial services is, in essence, a form of legalised theft: it puts the lenders (banks), who are able to create new credit and debt out of thin air in nearly unlimited quantity, in a position to lay legal claims on an increasing proportion of society's total real-economy wealth, without actually performing any productive input to the production process.

The core of financialisation is non-productive credit and debt creation

Again: The core mechanism of financialisation is the creation of new money for non-productive purposes. Borrowers of non-productive credit, such as people who buy houses in a real estate bubble in the hope and belief that the price will rise even further so that they can sell at a profit later on, or people who borrow money against inflated housing prices using 'second mortgages' to finance consumption, put themselves in the position of having entered into an agreement to pay back a debt (at compound interest), without having created a means for the borrower to generate new real-economy value, in the form of new goods or services, that could create an income stream from which to repay that debt. When the asset price bubble pops, those who borrowed against rising asset values are left in an untenable situation.

Unproductive lending makes it very difficult to repay debt, and ensures that a growing proportion of total global cash flows are "owed" to the creators of the debt, i.e. the banking system, as borrowers tap their remaining income streams and press them into service as sources of money for keeping up debt payments. This leaves less money over for other purposes, e.g. investment or consumption, and so it harms both the borrower and the broader economy (by reducing aggregate demand).

Eurozone policy-makers should understand and accept that the development of asset price bubbles was a failure of Eurozone banking regulation and supervision. Poor oversight and inadequate regulation were the basic reasons for the ensuing collapse of the bubble. It would be appropriate for Eurozone policy-makers to direct the banking system to write down and restructure excessive mortgage debt, to reflect the reduced asset price of houses post-bubble.

Intead, Eurozone policy-makers are doing everything they can to defend the interests of the creditors – in this case, the insolvent banks that engaged in a decade-long spree of grotesquely irresponsible, bubble-generating mortgage lending. Eurozone policy-makers continue to doggedly defend the banking system's creditor interests even in the face of 25% unemployment (and 50% youth unemployment) in Spain, a situation that is a direct result of inadequate banking system control. They defend the creditors even though it is clearly apparent that attempts to force borrowers to honour the terms of excessive debts that should never have been issued in the first place is causing a collapse in aggregate demand, in accordance with the dynamics of "balance sheet recessions" (as explain by Richard Koo – see below for references), driving much of Europe into an economic depression, impoverishing most debtors, and – ironically – making it unlikely that these debts will ever be repaid.

Unproductive lending makes it very difficult for borrowers to repay debt. It ensures that a growing proportion of total global cash flows are diverted to the creators of the debt, i.e. the banking system, as borrowers tap their remaining income streams (in particular, wages) and press them into service as sources of money for keeping up debt payments. This leaves less money over for other purposes, e.g. investment or consumption, and so it harms both the borrower and the broader economy, by reducing aggregate demand.

However, unproductive lending works to the benefit of the creditors of the banking system, i.e. the shareholders and senior executives of the banking system, as long as they are able to collect interest payments, and also (if there are bubbles or crashes to exploit with long or short positions in financial derivatives) if they are able to profit from capital gains.

Moreover, if a reduction in aggregate demand and widespread unemployment lead to a temporary deflation in asset prices (for some asset classes), so much the better for the most cash-rich creditors: they can buy up distressed assets at fire-sale prices, hold on to them for a few years, and re-sell them at a higher price (or in the case of real-economy assets such as factories, they can keep them as long-term money-spinners). Clever financiers can win on the way up and on the way down. This is the essential proposition of the 'hedge fund' business model: win going up and going down, regardless of what position the business cycle is currently in.

The creditor class thus have a direct financial interest in generating asset price bubbles and excessive private and public debt – especially if the creditors can off-load the risks of debtor loan payment defaults onto someone else.

Why so much mortgage lending? It's the easiest kind

The reason why banks prefer to issue mortgage credit or consumer credit, rather than productive investment credit, is simple: It is easy to look up housing market prices on a Website, and secure a mortgage against the market value of the house in question (enabling the bank to 'repossess' the house if the debtor falls behind in payments). It is much, much more difficult to gauge the creditworthiness of a productive enterprise. No Website will tell a banker whether the entrepreneur sitting in the chair in front of him really will succeed in profitably building a furniture company or a plumbing company, and most new entrepreneurs have little collateral to seize in the event of loan payment default.

A major reason why the problem of mortgage over-lending has become so much worse in the past decade or two is that clever mechanisms ("financial products", “derivatives”) have been invented by bankers to allow them to make loans, and benefit personally from doing so, without bearing the personal consequences if the loans turn out to be unrepayable (bad loans). The more ‘liquid’, ‘sophisticated’, ‘highly leveraged’ and ‘innovative’ financial markets have become, the easier it has become for issuers of credit to disassociate themselves from any responsibility for collecting that debt from the debtors, by on-selling loan default risks to third-party patsies by means of ‘sophisticated’ financial derivative instruments such as mortgage default insurance or collateralised debt obligations.

We’re not saving the banks; we’re saving the creditors

In practice, the creditor class long ago succeeded in off-loading the responsibility to collect debts onto the State, through the legal and justice system; and more recently they have figured out how to ensure they are not left holding the bag when loans issued by banks have proved to be bad loans. Bankers have found ways to transfer private banking debts to households and to the public accounts. A prime example is the Federal Reserve’s open-ended purchase of mortgage-backed securities from banks, in exchange for new electronic cash. Another (essentially identical) example is the ECB’s decision to accept low-quality loan portfolio securities from European commercial banks, in exchange for fresh electronic cash (i.e. the ECB engaging in increasing amounts of ‘quantitative easing’ in exchange for ever dodgier securities lodged by commercial banks with the central bank).

States are commonly said to be going more deeply into debt in order to ‘rescue banks’. More accurately, states are going into debt to rescue the banks’ creditors and shareholders. Since the money in the deposit accounts of banks’ clients are guaranteed by the government even in cases of bank insolvency, up to a generous limit for any single account, most depositors are at no risk. Banks as institutional entities are not at great risk, either: banks can fairly straightforwardly be put through bankruptcy, and re-launched a week or two later, with cleaned-up balance sheets, purged of bad debts. No bank tellers or ordinary staff need lose their jobs. However, having a bank go through bankruptcy would mean that *the bank’s shareholders and creditors would lose their investment*. (‘Creditors’ refers to entities that have lent money to the bank at risk of insolvency, i.e. usually other banks.) This is seen by Eurozone elites as unacceptable, allegedly because of the risk that many banks would fall like dominos, as the complex weave of inter-bank lending relationships could cause a wave of bank insolvencies to spill out from one ‘too big to fail’ bank, and drag other banks into insolvency as well.

Since banks also provide credit to fuel real-economy companies and transactions, the fear is that the whole economic system would grind to a halt, with massive real-economy corporate and household bankruptcies.

Indeed, bank lending for real-economy purposes has declined, because most of Europe (like the US, UK, and Japan) is in a ‘balance sheet recession’: aggregate demand for real-economy goods and services has been declining, because governments, households, and financial institutions, as well as some non-financial company sectors, are all attempting to reduce their debts at the same time. This necessarily causes a decline in aggregate demand, since more money is 'saved' (used to pay down debt) and less money is spent.

In an environment of declining demand, real-economy companies sack workers, unemployment increases, and government welfare payments to out-of-work people increases. The poorest are, as usual, hit hardest, because in conditions of unemployment, they are faced with the necessity of using up whatever meagre savings they have; indeed, they are likely to use up all their savings, if they have any, and go more deeply into debt. Meanwhile, because so many people are out of work, there is downward pressure on wages. This reduces the aggregate income of the debtor class (the great majority) and hence reduces aggregate demand still further.

We could save the 99% instead of the banks' creditors

Yet all of this could be very simply avoided by allowing insolvent banks to go bankrupt in a well-ordered process, in which the banks are taken into public ownership, restocked with equity capital furnished by government Treasuries or, indeed, by the ECB, and re-launched with cleaned-up balance sheets. This banking-sector 'reset' would allow a massive write-down of aggregate private debts.

Europe is suffering through a 'balance sheet recession' (as described by Richard Koo in his book, 'The Holy Grail of Macroeconomics - Lessons from Japan's Great Recession' (2008) and in many articles and speeches). This recession is projected to continue for another decade or more, causing massive unemployment, poverty, and public unrest in much of Europe. Yet it could be over within weeks, if policy-makers took the side of debtors rather than creditors, and allowed the banking system to go through a managed reset involving a large-scale write-down of aggregate private debts.

From a public interest point of view, one might imagine that it would be salutary to purge the system of its vast volume of bad loans, most of them bubble-driving real estate loans that should never have been made in the first place.

But senior politicians are convinced that banks must not be allowed to fail. As a result, the State's institutions have taken much of the *de facto* insolvent banking system's debts onto the public books. State agencies whose power and legitimacy are backed by the pooled might of the people – police, courts, tax collectors – are being put into play, to force the majority of the people to accept service cutbacks or increased taxes – all of this is in service of an attempt to pay down the vastly increased public debt that has resulted from transferring large volumes of irresponsibly created bad real estate debt onto the public balance sheet, exacerbated by the downturn in employment caused by the downturn in aggregate demand that began in 2007/8.

Yet the people are composed, in their great majority, of the debtor classes. The people's own State institutions are being used to enforce the morally questionable claims on their income that have been accumulated, over the past three decades, by a deeply flawed banking system. The people to whom the vastly increased public debt is owed are, at the end, the creditor classes – including the bank shareholders and senior bank officials who were responsible for generating the huge bubble in private sector financial debt, some of it now transferred to the public sector, which we are all told we have no option but to pay off, however much hardship this incurs.

At the end of the day, the world's population is split into two groups: Net creditors and net debtors. This is what the Eurozone crisis is really about: The eternal struggle between creditors and debtors, within a monetary system in which circulating money can only be created as mirror-offsetting credits and debts within double-entry book-keeping systems.

I will not go into detail on the possible long-term solution to this quandary here. However, it seems clear that the way forward must be a vastly simplified monetary and banking system, under democratic control and accountability, with the mechanisms for parasitical manipulations designed out of the system as much as possible.

POLICY REFORM IMPLICATIONS

Two key banking sector reforms are needed.

Sectoral bank lending quotas: 'Window Guidance'

The **first** key reform is to impose qualitatively defined lending quotas on commercial banks, as proposed by Prof. Richard Werner and others. The idea here is that the European Central Bank (in close consultation with European government Treasuries) should require all commercial banks to engage in credit issuance primarily for productive investment, not for asset-price speculation or consumption loans. As Prof. Dirk Bezemer says, whether bank loans are socially useful or not depends on the purposes and projects for which the money was lent into existence.

The policy of imposing lending quotas imposed by governments and central banks on commercial credit institutions is sometimes called "window guidance". Window guidance was a crucial component of the economic miracles of post-war Japan, Taiwan, South Korea, and now China. These nations' industrial development ministries and central banks required commercial banks to lend money primarily to productive enterprises.

Unfortunately, Japan in the 1980s and China in the past few years lost control of real estate lending and allowed enormous real estate bubbles to occur, which caused two decades of balance-sheet recession in Japan, and is now threatening the financial stability of China. As Richard Koo and Richard Werner detail in their respective books, when Japan abandoned its 'window guidance' strategy and allowed its banks to engender a real-estate asset price bubble in the 1980s, the consequence was a huge quantity of unrepayable loans, a *de facto* insolvent banking system, and two decades (so far) of near-zero economic output growth and wage stagnation, as a direct consequence of Japan's abandonment of lending quotas, and its unwillingness to punish its banks' creditors by allowing the banks to go through bankruptcy.

The great advantage of imposing 'window guidance' on the Eurozone's commercial banking system, through the ECB and Eurozone collaborative government institutions, is that it could be achieved very quickly. It would be very effective in ensuring that future bank loan portfolios increase in real-economy usefulness and productivity.

A simple way to prevent mortgage lending excesses and housing bubbles

As a corollary to window guidance, Prof. Steve Keen has proposed a limitation on mortgage lending he calls the PILL rule, or Property Income Limited Leverage rule. Let us keep firmly in view that around 80% of credit/debt in some countries (e.g. UK, USA, Spain) was issued as mortgage credit/debt, incurring monster real estate asset price bubbles, massive household sector over-indebtedness, and ensuing balance-sheet recessions. Something must be done to prevent commercial banks from over-lending. Keen's proposed mechanism is simple, could be implemented immediately, and would likely be very effective in preventing real estate over-lending. His proposal would cap the total mortgage burden that can be loaned onto any building to some multiple (say: ten) of the building's potential fair-market annual rental value at current rental prices.

So, if a building could be rented out for €1,000 per month, or €12,000 per annum, then the maximum allowable mortgage burden on that property would be 10*€12,000 = €120,000. Property buyers would be allowed to bid more than this amount for the property, but the additional money would have to be equity (already existing cash from the buyer's savings), not debt. This would interrupt the self-reinforcing cycle of ever-larger mortgages chasing ever-higher house prices. It would also have a direct knock-on effect in terms of limiting rent increases (since rent increases are in large part a consequence of increasing mortgage debts and building prices).

Full reserve banking

The **second** key systemic banking reform can only be achieved in the longer term (if at all, given the realities of political economy). This reform proposal would take the privilege of creating new money (i.e. of increasing the money supply) away from commercial banks, and limit the power to increase (or decrease) the money supply to an organisation under democratic control, ownership, and accountability, i.e. a reformed European Central Bank overseen by democratically elected governance structures.

The best way forward for a future banking system is likely some form of a 'Vollgeldsystem', or full reserve banking system, based on creating money as equity shares in society's productivity, rather than creating money as debt. Benes and Kumhof recently published a paper, 'The Chicago Plan Revisited', which studied what impacts a shift to a full reserve banking system would have on key macro indicators. Their conclusion is that a full reserve banking system would likely be greatly superior to the entirely debt-based monetary system we have in place. However, proposals of this nature, which would change the monetary system root and branch, must be studied and modelled very carefully prior to their implementation. This will entail using systems-dynamic monetary stock-flow modelling software to assess the likely consequences of reforms on key macro indicators (employment, monetary aggregates, etc.); mistakes would be very costly.

Under a full reserve banking system such as that advocated by Positive Money UK, private financial institutions known as 'banks' would continue to exist, but their role would be to do what most uninformed people imagine they do today: i.e. collect money from depositors, pool it, and on-lend this money to borrowers (with no net increase or decrease in the money supply). In this way, bank loans would consist of 'real money', money that already exists. In order to provide the economy with growing amounts of money to enable growing levels of production without risking deflation (and self-reinforcing deflationary spirals), the Central Bank, monitoring economic statistics carefully, would issue new non-debt fiat money in carefully calibrated amounts to the Government – in the European case, perhaps to a European Infrastructure Trust Fund – and this money could be spent into circulation on useful projects and public infrastructure.

Opportunities during a transition

It is not necessary to wait until a full reserve banking system is in place before beginning to issue new non-debt ECB fiat money in moderate quantities to fund a European Infrastructure Trust Fund. Let us assume there will be a lengthy transition time prior to imposition of full-reserve banking. During this transition, most legacy bank debts would continue to be honoured (except those written down as a result of putting banks through bankruptcy proceedings), though a large proportion of legacy debt should be restructured (i.e. reduced) through structural adjustments of mortgage loan terms.

During the transition time (perhaps 10 to 20 years?), the ECB could already make use of its latent powers to create and distribute non-debt fiat money to European public institutions. The new fiat money should be spent into circulation at a moderate pace, e.g. 3% of EU GDP per annum, with careful monitoring of its impact on macro-economic trends and statistics. In light of the economic depression and mass unemployment in southern Europe, the bulk of the fiat money thus created should initially be used for purposes of generating employment in depressed regions, in the form of productive infrastructure-creating jobs.

ECB fiat money could pay for the European clean energy transition and end the economic depression in southern Europe

A good choice of investment would be a transition to a decentralised, low-carbon European renewable energy and transportation infrastructure. This would generate jobs everywhere in Europe, and there is so much work to be done to complete the transition to a low-carbon economy that a very large volume of investment money and surplus labour could be soaked up without risking inflation.

As this new non-debt fiat money circulates, it will inevitably get in the hands of people who are heavily in debt; these people will use some of this non-debt money income to pay down previously incurred debt. This means that the new Central Bank-issued fiat money would, over time, cancel out some previously incurred debts; this quantity of fiat money, and a corresponding amount of debt, would disappear from circulation, as a result of double entry bookkeeping operations that will occur whenever legacy-debt repayments occur.

Eventually, at the end of the long transition period, all money (cash and electronic deposits) would be composed non-debt fiat money. Instead of being debt-based, our money supply would be equity-based. Under a *Vollgeldsystem*, a 100 Euro note would represent shares in a kind of virtual meta-company, the Euro Marketplace Metacompany; it would give the bearer the right to some fraction (€100 / €[total money supply]) of the Eurozone economy's current production or aggregate wealth. When people in a *Vollgeldsystem* borrow money from a bank, they would be borrowing money from existing sources, i.e. pools of savings aggregated by financial institutions from depositors' deposits; rather than (as is presently the case) inducing the bank to create new credit and debt out of thin air, and thereby adding to the money supply.

Policy reform campaign implications

What are the lessons in all this for agencies and institutions that seek to act in solidarity with the interests of the vast majority of the population, the debtor class who have very little net wealth (or negative net wealth) – yet also in solidarity with the entrepreneurial classes who build productive new businesses, and whose meritorious efforts should and must be rewarded financially?

I think the lesson is that a major systemic transformation of the banking and monetary system is necessary in order to enable economic justice and a compassion-tempered merit economy that is fair for the great majority, and primarily rewards real productive contributions (rather than skill in the manipulation of financial-system arcana). To enable such a transformation, it will be necessary to, first of all, develop a strong consensus around a single clearly explained, clearly understood proposal for a reformed banking and monetary system, including a transition pathway for getting there from where we are now.

This systemic reform proposal must be well-tested (through careful systems-dynamic economic modelling), technically competent and credible. It will be necessary to involve current or former Central Bank economists and other mainstream economic actors in its design, to ensure it gains broad and deep credibility. Finally, this systemic reform proposal and transition plan must be given a catchy name, and a powerful marketing push, involving the endless repetition of the proposal's name and its key points, promoted by highly visible, very credible and socially respected mainstream spokespeople. Finally, a consortium of political parties must be moved to accept the reform proposal and act on it.

This will not be quick or easy, but there is, in my view, no other way out of the morass of injustice and debt peonage in which the world economy has long been mired.