



## Economics Briefing 9b

# Finance and money

This second part of this briefing on finance and money is critical in understanding the ‘growth imperative’ which results from how money is created and presents the urgently needed alternatives.

## Part two

### Problems with modern bank-debt money

#### *A structural growth imperative*

Pre-industrial economies focused on the production and accumulation of goods with concrete use value – namely food, tools and livestock. Such goods, as products of the natural world, deteriorate over time when hoarded. In modern capitalist systems, however, the goal is to accumulate abstract exchange value in the form of money.

Money does not decay. Nor does it obey any other laws of the natural world: a deposit of money can grow by itself, earning initial interest which in turn generates interest of its own (called compound interest).

Interest-bearing debts and bonds can be thought of as structural drivers of growth. Why? Because, in order to pay back both an original debt and the interest it accumulates, a borrower must increase their economic output or benefit from an increase in the

money supply (through inflation). Both of these require growth.

Since the money supply is almost entirely created by bank-debt, any increase in money supply must, in turn, involve an increase in debt – with its associated interest and compounding interest.<sup>1</sup>

One counter argument used is that most of the interest received by creditors, and through the profits of banks, is eventually recycled back into the economy in the form of wages, consumption or investment.<sup>2</sup>

History suggests, however, that interest-bearing, debt-based monetary systems have always led to systemic, unsustainable increases in debt for those paying interest. Such enormous build-ups of inequalities have rendered growth, inflation, or alternatively debt forgiveness compulsory in order to prevent economic breakdown.<sup>3</sup>

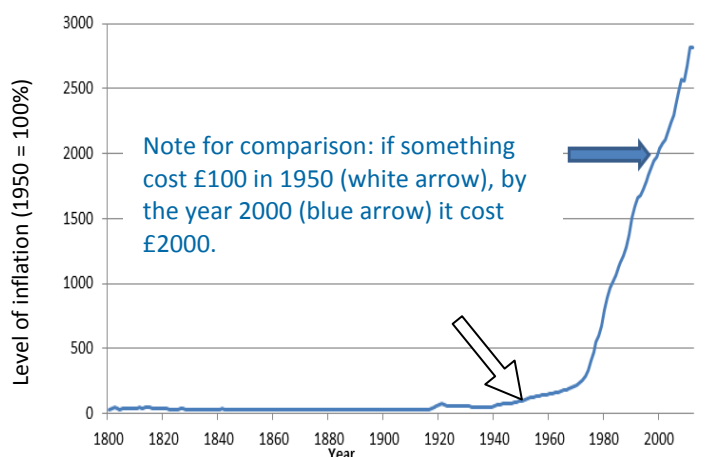
Furthermore, banks must hold a certain proportion of their profits in the form of capital

to cover the risk of default. This capital, by its very nature, is withdrawn from the productive economy and hence at least some proportion of interest will never be recycled back into the economy, again demanding growth or inflation to maintain stability.

### *Conflict between the 'medium of exchange' and 'store of value' functions of money*

Mainly because of the requirement to create growth and inflation in order to maintain economic and social coherence, modern bank-debt money has proved itself to be a poor 'store of value'. Inflation has become particularly rampant since the deregulation of the financial sector in the 1970s, and has caused consumers to lose 3-4% of their purchasing power every year (see figure 1 below).

Figure 1: UK inflation since 1800<sup>1</sup>.



Creating money that does not lose its value has proven historically difficult. For a central bank to maintain the value of money perfectly, it would need to ensure an inflation rate of 0%. But because of the need for growth demanded by interest and the need for banks to hold capital, doing so would damage trading conditions.

Ultimately, different groups and communities will always have conflicting interests over these two functions of money. It's a struggle that was perhaps at its most clear before and

after the American Civil War, between the 'Greenbacker' farmers who wanted 'easy money' that they could invest and support themselves with over the farm year and the bankers of the East Coast who wanted to maintain the value of their money.<sup>4</sup>

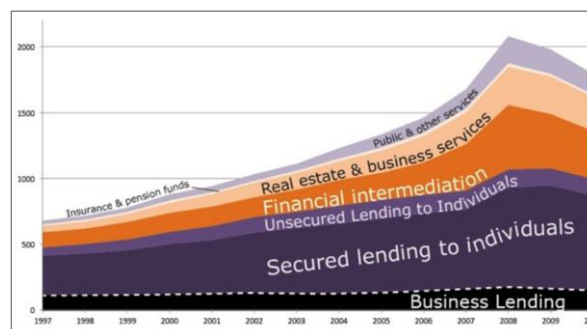
### *Mis-allocation of credit leading to economic instability*

Private banks determine not only how much money is created in the economy but also where that new money goes via their 'lending' (credit creation) decisions.

Up until the 1970s, the central bank played an active role in influencing credit allocation through regulation. In the last 40 years, however, deregulation and the digitalisation of money (in particular the move away from cash) has eroded public control over credit allocation.

Since the 1980s banks have increasingly begun to create credit for non-productive activities, such as consumption via credit cards, commercial and private mortgages (represented as 'secured lending to individuals' in figure 2 below) and speculation on financial markets – such as currencies, bonds or commodities (represented as 'financial intermediation').

Figure 2: U.K. bank's net lending by sector, 1997-2010, sterling millions



In the short term these activities can be more profitable and, where lending is secured, less risky than lending to businesses or large scale infrastructure.

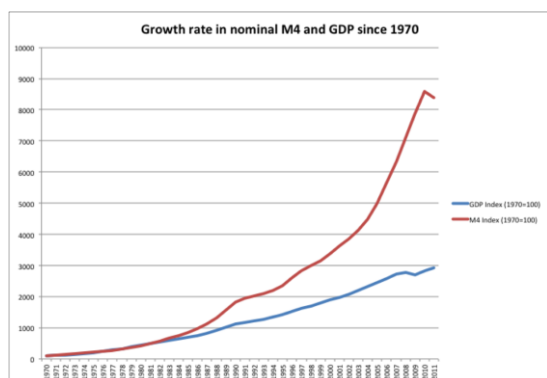
But the flip side of this is that speculative credit creation has led to asset price booms, where the price of property and other assets is pushed to unrealistic levels.

Take housing price booms as an example. As larger and larger mortgages are needed to buy homes, the proportion of people's incomes that goes toward paying off their mortgages rises until eventually they are forced to reduce their spending in the real economy. This leads to inevitable 'bust', as demand falls, businesses default, unemployment rises, banks lose confidence and reduce their lending and house prices begin to fall.

Since the seventies, two large credit bubbles and busts in the housing market have occurred, the most recent contributing to the worst financial crisis since the great depression of the 1930s.

As figure 3 demonstrates, the amount of money in circulation (shown by the red line) is diverging from the value of the goods and services we actually produce (shown by the blue line – nominal GDP).

Figure 3: Money supply against nominal GDP since 1970<sup>5</sup>



As well as creating financial instability, speculative credit creation increases inequality. This is because the gains from asset price booms go to the owners of those assets, who tend to already be wealthy.<sup>6</sup>

Fast rising asset prices also encourage investors and companies to turn away from productive investment, where returns tend to be lower and longer term, which further feeds the credit bubble. This process (making a 'fast buck' out of speculation rather than investing in the actual productive economy) is often referred to as 'financialisation'.<sup>7</sup>

Hyman Minsky's 'Financial Instability Hypothesis' describes a cycle of recurring phases in the capitalist process.<sup>8</sup> At the beginning of each cycle, Minsky says, profits are low and banks act more conservatively. But over time, profits rise and both banks and firms grow in confidence, becoming more indebted (i.e. borrowing or buying fixed assets) with resulting over-investment in assets that results in asset price inflation which breeds even greater confidence. This eventually leads to 'ponzi-financing' where banks lend on the basis of assumed increases in asset prices – rather than what really happens. Eventually, the imbalance of debt to income becomes so unsustainable that people start to default on their loans. As a result, banks become less willing to lend, which in turn makes growth and wages stagnate. The asset price bubble bursts as house prices begin to fall, and debt-deflation ensues. This is where real outstanding debt increases as real income falls, leading to the inevitable crash.<sup>9</sup>

### *Mis-allocation of credit leading to social and ecological harm*

In the same way that banks can ignore the macro-economic impacts of their activities, there is no incentive for banks to account for

the social or environmental impacts of the activities they finance. Low-carbon infrastructure, for instance, is not as profitable in the short-term as environmentally harmful (but lucrative) activities like fossil fuel prospecting, and is hugely under-financed as a result.

The existence of externalities and market failure (briefing 8) is well established in economic literature. One approach to correcting them is to use regulatory or market-based mechanisms, such as – in the case of environmental externalities – green taxes. Ultimately, measures like these should make investing in environmentally damaging activities less profitable, and thus reduce demand for financing them.

### **What are the alternatives?**

Whilst, regulation and alternative taxation systems will take time to bed down, the natural resource and climate change crisis facing the planet requires more immediate action. If we are to move to a low carbon economy and safeguard the earth's natural resources, a massive flow of capital is needed *now* to fund that transition.

Given that existing financial institutions (in particular private banks) appear incapable of delivering the transformation we need an alternative, urgently. A number of alternatives exist:

#### *Alternative 1: public banks*

Research shows that national development banks can play a key role in stimulating innovation in new sectors.<sup>10</sup>

A credit creating institution in the hands of the public or the government would be ideally placed to invest in the large scale, green infrastructure we need.

The UK's coalition government has created two institutions – the green investment bank and the business investment bank - that could potentially fulfil this role. At the moment, however, these institutions are funds or intermediaries, rather than banks: they are not legally able to create credit in the way that we have described, and depend on government and private sector investment of existing money.

#### *Alternative 2: green quantitative easing*

So far, the Bank of England has created £375 billion (by the end of 2012) via the purchase of UK government bonds in the financial markets in an attempt to drive down interest rates and encourage investment into the real economy. This quantitative easing program may have helped prevent deflation and eased recession somewhat, but it does not seem to have tempted banks to scale up investment in productive activities.<sup>11</sup>

An alternative would be for the Bank of England to buy different forms of assets, for example, bonds issued by national banks or by agencies set up to invest in the real (productive) economy. Once capitalised, these institutions would be able to start lending immediately without waiting for funding from the private or government sectors. A number of policy options around this idea have been put forward by **nef** and other organisations.<sup>12</sup>

#### *Alternative 3: credit guidance by the government or central bank*

This would involve putting mechanisms in place to indirectly guide bank lending. For instance, the government could specify that commercial banks must allocate a certain quantity of their lending to the industrial sector (such policies are often termed 'window guidance' or 'strategic credit creation'). Or, they could apply differential



interest rates to different categories of lending.

Another indirect control on the price and availability of credit could be instigated by applying different capital adequacy ratios (i.e. the amount of shareholders own funds, or equity capital, that banks need to hold versus what is lent) against different categories of lending.

Although these instruments are unfamiliar to the UK in recent times, they have been instrumental in the rapid industrialisation of Japan, Korea, Taiwan and China in the decades since the 1970s.<sup>13</sup> The state ownership of Lloyds Banking Group and Royal Bank of Scotland (and the extensive restructuring required of the latter) offers an opportunity to test a wide range of monetary policy instruments.

#### *Alternative 4: nationalisation of the money supply.*

Historically, there are many examples of states directly creating money and putting it in to circulation free of interest. Indeed, prior to the invention of modern banking at the end of the seventeenth century, most states used simple accounting techniques (such as tally sticks in the UK, minted coins or printed paper money) to fund their activities. They ensured the widespread adoption of these techniques through taxation.<sup>14</sup>

There are also numerous historical examples of governments funding spending through the issuance of 'government money'. These include the issuance of 'Greenbacks' by the U.S. government during and after the Civil War, and 'Bradbury Bills' in the UK during World War I.<sup>15</sup> Similarly, the governments of Germany, Japan and the USA at times issued significant amounts of government money, mainly during the nineteenth century.<sup>16</sup>

Many leading economists, including Irving Fisher<sup>17</sup>, Milton Friedman<sup>18</sup>, Henry Simons<sup>19</sup>, James Tobin<sup>20</sup> and Herman Daly<sup>21</sup> think that governments alone should have the power to expand money supply. This, they argue, would create a much more stable banking system.

Such a system would require banks to practise what's known as 'full', or '100% reserve' banking. What this means is that they would have the full value of all their customers' deposits stored as 'reserves' – cash or 'liquid' assets that could be rapidly sold for cash. Instead of simply creating and destroying money any time somebody took out or paid in money, banks would be pure intermediaries (as most people think they are now), matching up savers and borrowers in the way that peer-to-peer lenders do.

**nef**, along with Huber and Robertson (2000)<sup>22</sup>, have already proposed how full-reserve banking could work in the UK in a joint submission to the Independent Commission on Banking<sup>23</sup>. Their proposal has recently been backed by two research economists at the International Monetary Fund (IMF) who examined the proposal using state-of-the-art macro-economic modelling to show how it would both reduce existing debt and stabilise the economy.<sup>24</sup>

While the issuance of government money to fund spending is often thought to be inflationary, this need not be the case, especially if limited by the growth potential of the economy. Inflation is the result of too much money chasing too few goods and services. If an economy has spare capacity, (e.g. it is not at full employment), additional money allocated to the right places should create additional economic activity rather than driving up prices. This type of money issuance could be limited to specific sectors

and for specific amounts of time and the Government could then tax it back out of circulation.

### *Alternative 5: Regional or local money systems*

A final alternative is that of 'local' or 'community' currencies. These are payment systems created by non-state and non-bank actors. They are often described as 'common tender'<sup>25</sup> (as opposed to legal tender) or 'complementary currencies' to highlight the fact that they work in tandem with national currencies rather than replacing them entirely. They generally focus on fulfilling the 'medium of exchange' function of money and are not designed to be hoarded as a store of value.

The best known examples are from the Great Depression era where in both the United States and Europe, 'stamp scrip' currencies were issued to support businesses and local production as national currencies became scarce because of deflation.<sup>26</sup>

One surviving currency from this period is the Swiss WIR credit-clearing circle created in 1934. This mutual credit scheme, presided over by the WIR cooperative bank, creates credit that is denominated in, but not exchangeable in to, Swiss Francs. Loans can be issued amongst the bank's 60,000 members – mainly small and medium size enterprises – and can only be spent within this network of businesses. In 2008, the volume of WIR-denominated trade was 1.5 billion Swiss francs.<sup>27</sup> Evaluation of the Swiss WIR system suggests it has had a stabilising, and 'counter-cyclical' effect on the Swiss economy, as businesses have used it more during recessions.<sup>28</sup>

In such 'mutual credit' systems, credit is linked directly to the productive or spare capacity of the people and businesses

involved, because credits within the system are backed by delivery of goods and services by members – i.e. they have real value.

Developments in technology have made it easier and cheaper to exchange these types of currencies. Some thinkers suggest that scaling up their use could really boost the resilience of our financial system – a system that has become overly dependent on the type of state-monopoly, debt-based money that these papers (9a and 9b) have described.<sup>29</sup>

The **Marine Socio–Economics Project** (MSEP) is a project funded by The Tubney Charitable Trust and coordinated by nef in partnership with the WWF, MCS, RSPB and The Wildlife Trusts.

The project aims to build socio-economic capacity and cooperation between NGOs and aid their engagement with all sectors using the marine environment.

## References from part 2

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<sup>1</sup> and <sup>2</sup> Binswanger constructs a simple circular flow model based on a closed pure credit economy to demonstrate this growth imperative - see Binswanger, M. (2009). "Is there a growth imperative in capitalist economies? a circular flow perspective." *Journal of Post Keynesian Economics* 31(4): 707-727.

<sup>3</sup> Historically, rulers have periodically offered massive debt write-downs or jubilees in order to maintain social order in the face of unpayable debts. See Graeber, D., 2011, *Debt: The First 5000 years*, Melvyn House: Brooklyn, NY

<sup>4</sup> Carruthers, B. G., and Babb, S., (1996) "The Color of Money and the Nature of Value: Greenbacks and Gold in Postbellum America", *American Journal of Sociology*, Vol. 101, No. 6, <http://www.jstor.org/stable/2782112>

<sup>5</sup> Source: GDP statistics from Bank of England, "The UK Recession in Context, 3 centuries of data. M4 statistics from Bank of England interactive database, M4 (code LPQAUYN)

<sup>6</sup> Galbraith, J., *Inequality and Instability: A Study of the World Economy Just Before the Great Crisis*, OUP: USA

<sup>7</sup> Palley, T., 'Financialization: What it is and Why it Matters', November 2007, PERI working paper

<sup>8</sup> Minsky, H.P., 'Can "It" Happen Again? Essays on Instability and Finance', Armonk, NY: M.E.Sharpe, 1982;

<sup>9</sup> Fisher, I., "The Debt-Deflation Theory of Great Depressions," *Econometrica*, 1 (October 1933), 337 – 57.

<sup>10</sup> Mariana Mazzucato, 'Without banking reform, investing in innovation is too great a risk', *The Guardian*, 11<sup>th</sup> of September 2012, <http://www.guardian.co.uk/commentisfree/2012/sep/11/banking-reform-innovation-great-risk>

<sup>11</sup> See Lyonnet, V., and Werner, R., (2011) 'The lessons from QE and other 'unconventional' monetary policies – evidence from the Bank of England', Unpublished working Paper - Centre for Banking, Finance and Sustainable Development, School of Management, University of Southampton

<sup>12</sup> See example proposals for 'Green Quantitative Easing', retrievable from - <http://www.greennewdealgroup.org/?p=175> and <http://www.neweconomics.org/blog/2012/07/05/quantitative-easing-a-wasted-opportunity>

<sup>13</sup> Werner, R.A., (2002). *Monetary Policy Implementation in Japan: What They Say vs. What they Do*, *Asian Economic Journal*, Volume 16 no.2, Oxford: Blackwell, pp. 111-51.; World Bank, (1993). *The East Asian Miracle, Economic Growth and Public Policy*, Oxford: Oxford University Press

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<sup>17</sup> Fisher, I., (1936). "100% Money and the Public Debt", *Economic Forum*, Spring Number, April-June 1936, 406-20.;

<sup>18</sup> Friedman, M., (1960). *A Program for Monetary Stability*, New York: Fordham University

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<sup>20</sup> Tobin, J., (1985). "Financial Innovation and Deregulation in Perspective", *Bank of Japan Monetary and Economic Studies*, 3, 19-29;

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<sup>23</sup> Dyson, B., Greenham, T., Ryan-Collins, J. and Werner, R., A., (2010) *Towards a Twenty-First Century Banking and Monetary System: Submission to the Independent Commission on Banking*. London: nef retrievable from <http://www.neweconomics.org/sites/neweconomics.org/files/Submission-ICB-Positive-Money-nef-Soton-Uni.pdf>

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