

# Would there be enough credit in a sovereign money system?

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## EXECUTIVE SUMMARY

Positive Money advocates a reform to the banking system that would prevent banks from being able to ‘create money’, in the form of bank deposits, whenever they issue loans. In this reform, known as a ‘Sovereign Money system’, the power to create money would be removed from the banking sector and transferred to a public body, such as the Bank of England. New money would be created only by the Bank of England and then transferred to the government, who could then use this money to finance public spending, tax cuts or direct transfers to citizens.

Banks would still be able to lend, but they would do so by first borrowing pre-existing Sovereign Money from savers and then lending it to borrowers, without creating any new money in the process. Banks would then become true intermediaries (middlemen between savers and borrowers), rather than the primary creators of new money. (The appendix gives a detailed outline of Sovereign Money reforms.)

Various economists, journalists and other commentators have criticised these proposals, arguing that a removal of the banking sector’s power to create money would be economically damaging. They contend that if banks are prevented from being able to create money and must constrain their lending to the level of existing savings, the economy would suffer from a shortage of credit. Businesses would not be able to acquire the credit (loans) they need to invest and expand, and would therefore be unable to create new jobs or drive economic activity. Consequently, the economy would experience low levels of economic activity, high unemployment and potentially even deflation.

However, this argument rests heavily on an out-dated notion of how banks operate in practice. Consequently, the assumptions about the importance of bank lending and the role of banks in the modern economy are often contradicted by reality. We address five key assumptions in turn:

### **Assumption 1: “Bank lending is the most important source of finance to businesses.”**

While it is true that bank lending is an important source of funding to businesses, the evidence shows that it is neither the largest nor most significant source for either large businesses or SMEs. In most years, other channels of funding, such as retained profits earned from previous sales, and trade credit, play a greater role. In the future, the increasingly significant role of peer-to-peer finance in debt markets is likely to further reduce the importance of bank lending to business. Critics are therefore overstating the importance of bank lending to business investment.

## **Assumption 2: “A lack of access to bank loans is the main constraint on the growth of businesses.”**

Many of the critics of Sovereign Money proposals implicitly assume the primary constraint on a business's growth is whether the business can get access to loans. Entrepreneurs are assumed to be standing ready to invest and employ more people, but are held back because they can't access the funding to do so. Yet for the last five years demand for bank loans has been consistently very low. Since 2010, only 2-3% of all UK SMEs have applied for a new bank loan each year, while only 3-4% of SMEs have applied for a new overdraft. Surveys of businesses find that only 7% of UK businesses and 2% of US businesses said that access to bank loans was the greatest obstacle to their growth.

Far more significant is the wider economic situation and its impact on consumer demand. With a highly indebted population and high house prices squeezing disposable income, businesses need greater spending by customers before they need banks to increase their lending. This is not to say that businesses are not credit constrained, it is merely to suggest that businesses are first and foremost demand constrained. When aggregate demand picks up, it will be essential for banks to be able to supply the necessary credit to business (see next section).

## **Assumption 3: “The level of existing savings is insufficient to finance business lending”**

In a Sovereign Money system, banks would need to attract funds from savers before they could lend. Critics have claimed that existing savings would be insufficient to finance business investment.

However, this argument overlooks the fact that in every month, banks would receive significant sums of money from repayments on existing loans, which could then be recycled to finance new loans. This recycling of loan repayments would be sufficient to fund business lending and a non-inflationary level of mortgage and consumer lending. However, it would not be sufficient to cause the levels of house price inflation that preceded the financial crisis.

A transition to a Sovereign Money system should result in a significant fall in household debt across the economy. This means there would be less demand for credit in the future, with savings able to meet that demand. Finally, as a safety measure, any serious shortage of credit could be made up by the Bank of England lending newly created money to commercial banks to on-lend to credit-worthy borrowers and businesses.

### **Assumption 4: “Banks create an appropriate amount of money for the economy as a whole.”**

Many of the critics assume that the current banking system responds to the needs of the economy, increasing or decreasing lending to provide an appropriate or ‘optimal’ amount of money for the economy. However, the evidence does not support this assumption. Periods of relative economic stability encourage banks to increase their lending, leading to more money creation. This can fuel unsustainable booms, leading to asset bubbles and financial market volatility. When the boom turns to bust, the rate of loans being repaid outpaces the rate at which new money is created. The private sector pays down debts at the expense of spending. A lower level of spending leads to lower incomes, making it more difficult for others to earn the income needed to service or repay their outstanding debts. Money creation under the current system is therefore pro-cyclical and does not consistently provide an appropriate or optimal amount of money for the economy as a whole.

### **Assumption 5: “Bank loans mainly finance activities that lead to economic growth.”**

The critics often implicitly assume that the vast majority of new money creation by private banks is directed towards activities that contribute towards GDP (and economic growth). In reality, most newly created money is used to buy pre-existing real estate and financial assets that do not contribute directly to growth in GDP. Lending for businesses (8%) is eclipsed by the lending and new money creation that goes to the real estate (51%) and financial sectors (32%) of the economy.

## **CONCLUSION**

This paper shows that the performance of the real economy is much less dependent on the ability of banks to create money than critics of Sovereign Money proposals have assumed. Empirical evidence suggests that a Sovereign Money system should be able to provide an adequate (but non-inflationary) level of business lending, mortgages and consumer loans. In addition, by getting more money into the hands of households, new money creation in a Sovereign Money system is likely to do more to boost employment and economic activity than increasing the level of business lending in isolation. The Sovereign Money proposal is therefore worthy of more serious consideration than critics have given it so far.

## INTRODUCTION

Today, most of the money in use in any economy consists of electronic bank deposits that are usually created by banks when they issue loans or buy assets. Only a minority of money (as little as 3%) consists of notes and coins issued by the government.

A number of economists<sup>1</sup> and campaign groups<sup>2</sup> have argued that the ability of banks to create money has created or worsened a wide range of social and economic problems. These problems include high levels of household debt, rising inequality, financial instability, a stagnant economy, and a worsening fiscal position for governments around the world.

Proposals advanced to address these problems at the root suggest that banks should lose their power to create money<sup>3</sup>. In the ‘Sovereign Money’ approach, outlined in the book *Modernising Money* (Jackson & Dyson, 2013), the power to create money would be removed from the banking sector and transferred to a public body, such as the Bank of England. New money would be created only by the Bank of England and transferred to the government, which could then use this money to finance public spending, tax cuts or direct transfers to citizens. Banks would lend by first borrowing pre-existing Sovereign Money from savers and then lending it to borrowers, without creating any new money in the process. Banks would then become true intermediaries (middlemen between savers and borrowers), rather than the primary creators of new money.

In response to these proposals, a number of economists, journalists and other commentators have argued that removing the banking sector’s power to create money would be economically damaging. They argue that if banks were no longer able to create money and had to limit their lending to the amount of existing savings, they would be unable to provide enough credit (loans) to businesses. These businesses, unable to invest and expand, would be unable to create new jobs or generate economic activity. The economy would suffer from low levels of economic activity, high unemployment and potentially even deflation.

Because all these negative effects are assumed to stem from a shortage of bank credit, we refer to this argument in general as the ‘**shortage-of-credit thesis**’.

However, the shortage-of-credit thesis rests on several assumptions about the importance of bank lending and the role of banks in the modern economy, many of which are contradicted by empirical evidence.

The traditional view of banks – still held by many economists and economics textbooks – is that their primary activity is to provide loans to entrepreneurs and businesses. These businesses then use these loans to hire workers, buy equipment and materials, and then produce goods and services. This creates employment and economic growth, leading to a better standard of living for all. In this traditional view of banking, the

credit that banks provide acts as a lubricant that allows entrepreneurs with good ideas to turn them into reality.

This traditional view of the banking system is understandable, as historically banks were the most important lenders to the real economy. Indeed, throughout the industrialisation period and even up until the 1970s, bank's primary function was to lend for working and fixed capital. It logically follows that restricting how much credit banks can provide, by removing their ability to create money, would limit the ability of entrepreneurs and established businesses to expand and produce more goods and services. This would leave us all worse off.

The practice of banking today is very different from traditional theory, as theory has not been updated to take account of changes to the banking sector's primary operations. Therefore, to evaluate the legitimacy of the shortage-of-credit thesis, we identify its underlying assumptions, before checking these against empirical evidence.

We find that while bank lending is an important source of funding to businesses, it is not the greatest or most significant source. Business growth is more dependent on aggregate demand (spending by consumers) than on the availability of loans from banks. We then show that if aggregate demand were to pick-up, there would be sufficient credit available in a Sovereign Money system to meet the demand from the business and other sectors for loans. We show that the banking sector's ability to create money can destabilise the economy, as banks create 'sub-optimal' amounts of money (either too much or too little) for the economy. We conclude by showing that most bank lending does not finance activities that lead to GDP growth.

These findings suggest that the links between the money creating powers of private banks and economic activity are far weaker than is presumed by the shortage-of-credit thesis. The evidence presented suggests that a Sovereign Money system would plausibly be able to cope with the demand for credit.

## STRUCTURE OF THIS PAPER

**Part 1** begins by briefly describing those key features of a Sovereign Money system that are necessary for understanding the conclusions of this paper. (The appendix gives a full description of a Sovereign Money system for those who are not already familiar with the concept). We then identify the five main assumptions that form the backbone of the shortage-of-credit thesis. **Part 2** crosschecks each implicit assumption against the available empirical evidence, and finds that the evidence does not support the thesis. **Part 3** concludes.

# PART 1: SOVEREIGN MONEY AND THE SHORTAGE-OF-CREDIT THESIS

## 1.1 SOVEREIGN MONEY VERSUS THE EXISTING MONETARY SYSTEM

We first highlight some crucial differences between the existing money system and a Sovereign Money system, before moving on to analyse the shortage-of-credit thesis.

### Key features of the Current Monetary System

In the UK just 3% of money is created by the government, through the Bank of England, in the form of cash (notes and coins). The other 97% of money consists of bank deposits in accounts at commercial (or ‘high street’) banks.

Commercial banks create new deposits, and therefore create new money, through the process of lending. As the Bank of England (2014) explains, “*Whenever a bank makes a loan, it simultaneously creates a matching deposit in the borrower’s bank account, thereby creating new money.*” (Bank of England, 2014, p. 1). In the reverse process, money disappears from the economy when loans are repaid: “*Just as taking out a loan creates new money, the repayment of bank loans destroys money.*” (*ibid*, p. 4).

Consequently, under the present monetary framework the creation (or destruction) of new money takes place simultaneously with the creation (or destruction) of debt. As the amount of money in an economy increases, so too does the amount of debt owed by households and businesses to the banking system. If there’s a need to increase spending to fuel economic growth, this is only likely to happen if either households or businesses take out more loans. Conversely, as debts are repaid, spending is sacrificed. Lower levels of spending threaten an economic slowdown and stagnation. While low levels of spending may have been caused because of excessive debt in the first place, spending can only be increased if households and businesses take on more debt.

### A Sovereign Money System

In contrast, in a *Sovereign Money system* the power to create money would be removed from the banking sector and transferred to a public body, such as the Bank of England. New money would be created by the Bank of England and transferred to the government, which could then use this money to finance public spending, tax cuts or direct transfers to citizens. Banks would lend by first borrowing pre-existing Sovereign Money from savers and then lending it to borrowers, without creating any new money in the process.

The new money created by the Bank of England would be *spent* into the economy by the government, rather than being *lent* into the economy by the banks. This makes it possible for new money to be created ‘free of debt’, in the sense that no business or household has to take on further debt to get the new money into the economy.



The appendix to this paper explains how a Sovereign Money system would work in detail, with links to further information, but for now, three important features need emphasizing:

**1) A Sovereign Money system is designed to provide an appropriate (not restrictive) level of money creation.** A Sovereign Money system provides a flexible monetary framework, where monetary authorities can adjust the rate of money creation to respond flexibly to changes in the economy. For example, when the economy is suffering low aggregate demand, the Bank of England can increase the rate of money creation. The government can then use this extra newly created money to finance extra public spending, tax cuts or direct distribution to citizens. A Sovereign Money system is designed so that policy makers can ensure there is always enough money in circulation to meet the needs of the economy.

If demand for loans far exceeded the willingness or ability of savers to lend, the Bank of England can allow banks to borrow newly created money directly from the Bank of England. Banks would only be allowed to lend this money to businesses whose activities contribute directly to the production of goods and services.

By design, the particular implementation of a Sovereign Money system advocated in *Modernising Money* restricts excessive lending much more than the current monetary system. If a Sovereign Money system were as flexible as the current monetary system, then it would produce many of the same negative effects.

**2) A Sovereign Money system would not stop banks from lending or acting as intermediaries.** Critics of Sovereign Money proposals often fail to draw a distinction between a) bank lending and b) money creation. They assume that because the two processes take place simultaneously in the current monetary system, it is impossible to prohibit banks from creating new money without also prohibiting them from lending.

In practice, in a Sovereign Money system banks would continue lending and financial intermediation would continue to be a crucial feature of the economy. However, the loans banks made would be loans of money provided by savers, rather than loans of newly created bank deposits. Banks in a Sovereign Money system would therefore lend without creating new money.

For entrepreneurs and businesses, whether the money they borrow is newly created by a bank or previously existed in the hands of a saver makes no difference to the usefulness of the borrowed funds. What is important to entrepreneurs is that they can borrow money when needed. A Sovereign Money system is designed to preserve the useful lending and intermediation functions of banking, whilst preventing the creation of new money.

**3) In a Sovereign Money system, debt repayments will not result in the destruction of money.** In the current monetary system, the deposits used to repay bank loans disappear or are ‘destroyed’ as a result of the accounting process used to repay a loan. In contrast, in a Sovereign Money system debt repayments would *not* result in money being destroyed. Instead, loan repayments would be made by debtors transferring Sovereign Money from their Transaction Accounts to the Investment Pool account of their bank. The bank would now have re-acquired the Sovereign Money which it originally lent on behalf of its investors. It could then either 1) make the money available for re-lending to other borrowers, or 2) repay the money to the original investors.

The crucial point here is that loan repayments would no longer destroy money or cause a contraction of the money stock. Loan repayments would automatically increase the lending bank’s holdings of Sovereign Money in its Investment Pool Account at the Bank of England, which the bank could then return to the economy. As money held at the Bank of England would earn no interest, banks would have a strong incentive to re-lend any idle Sovereign Money.

## 1.2 THE SHORTAGE-OF-CREDIT THESIS

Critics of the Sovereign Money proposals claim that removing banks’ ability to create new money would reduce the supply of credit (i.e. loans) to the private sector and real economy. The Independent Commission on Banking (2011) claims that “A complete move from fractional to full-reserve banking would drastically curtail the lending capacity of the UK banking system, reducing the amount of credit available to households and businesses and destroying intermediation synergies”. Other critics suggest that a move to Sovereign Money would prompt “a tendency toward deflation or recession” (Kregel, 2012, p. 6), or, with more hyperbole, that the proposal would lead to “a massive deflationary disaster” (Tim Congdon, quoted in Evans-Prichard, 2012), and would “return society to the dark ages” (Pettifor, 2014a, p. 43).

These critics come from different economic schools of thought. Despite that, the critiques have a similar line of reasoning, assuming that without their ability to create money, banks will be unable to provide sufficient credit to the real (i.e. GDP-contributing) economy. This shortage of credit will restrict the level of economic activity and employment. This paper refers to this general line of reasoning as the ‘shortage-of-credit thesis’.

The shortage-of-credit thesis is often based on either a) an inaccurate understanding of the role and importance of bank lending for the real economy, b) an out-dated notion of how banks operate, or c) an inaccurate understanding of the Sovereign Money

proposals. However, it is still possible to determine if the thesis is valid, by identifying its underlying assumptions and crosschecking those assumptions with the empirical evidence.

It is important to note that hidden within the foundation of every argument is an intrinsic set of assumptions. Some of the assumptions highlighted here have not been directly stated by all the proponents of the shortage of credit thesis. Indeed, some proponents might actually disagree with the assumptions underpinning their own argument. This however, does not change the fact that the validity of every argument depends on these assumptions being true. Thus, some of the highlighted assumptions may not have been openly put forward by certain authors, but for their argument to be a valid criticism of Sovereign Money proposals specifically, these assumptions would have to hold.

A key assumption within the shortage-of-credit thesis is that the current monetary system provides an appropriate amount of credit to the economy. In commenting on full-reserve banking, Krugman (2011) states, “So what would happen if you simply tried to eliminate fractional reserve banking? First of all, you would be trying to ban a genuinely productive activity.” Or as Congdon puts it, under a Sovereign Money system, “People wouldn’t be able to get money [i.e. loans] from banks. There would be huge damage to the efficiency of the economy” (quoted in Evans-Pritchard, 2012).

In a similar vein, this line of reasoning also implies a belief that the majority of newly created money is used for activities that count as part of GDP. As Wray (2014) states, “We need that [private bank] thin air money creation to keep the lending, spending, and growing moving forward”, or as Pettifor (2014b) puts it, Sovereign Money would lead to “a shortage of money, high unemployment, and low economic activity”.

There is also a clear assumption that entrepreneurs and businesses depend on loans from banks to expand their businesses and create jobs. Pettifor for example states that “...money created by banks...creates economic activity, investment, employment and income” (2014b) and that a Sovereign Money system would ‘inhibit’ investment and “above all employment”. It seems that these authors presume that the level of bank lending is the most significant constraint on innovation and economic growth. As Kregel (2012) writes, “...it would be impossible in such a [Sovereign Money] system for banks to act as the handmaiden to innovation and creative destruction by providing entrepreneurs the purchasing power necessary for them to appropriate the assets required for their innovative investments” (p. 6).

There are further claims that the level of existing savings would be too low to fund lending to the real economy. As Pettifor (2014b) puts it, “If the issuance of credit or money is to be restricted to equal the money set aside in peoples’ piggy banks...then society would revert back to the Middle Ages”.

In summary, the shortage-of-credit thesis considers the money-creating powers of private banks to be vital to business investment and the resulting levels of employment, output and rates of economic growth. From this perspective, the creation of new money through bank lending is seen as essential for the proper functioning of the economy.

Therefore the shortage-of-credit thesis argues that the removal of the banking sector's ability to create money would cripple the economy. It is alleged that with banks being incapable of providing sufficient lending to meet demand from entrepreneurs for loans, unemployment, deflation, and low levels of economic activity would eventually follow.

We can now identify five key assumptions that underlie the shortage-of-credit thesis. Three of these assumptions are more micro in nature, dealing specifically with firm and business level operations, while the other two assumptions are more macro, focussed on the economy as a whole. We will check those assumptions against empirical evidence in the next section. The five assumptions are:

### **Assumptions about businesses:**

**Assumption 1:** Bank lending is the most important source of finance for businesses.

**Assumption 2:** A lack of access to bank loans is the main constraint on the growth of a business.

**Assumption 3:** The Level of Existing Savings is Insufficient to Finance Business Lending.

### **Assumptions about the economy as a whole:**

**Assumption 4:** Banks create an appropriate ('optimal') amount of money for the economy as a whole.

**Assumption 5:** Across the economy, most bank lending goes to sectors of the economy that contribute to GDP growth.

## PART 2: ASSUMPTIONS VERSUS THE EMPIRICAL EVIDENCE

### ASSUMPTION 1: BANK LENDING IS THE MOST IMPORTANT SOURCE OF FINANCE FOR BUSINESSES

#### How do companies finance their investment?

The shortage-of-credit thesis implicitly assumes that bank lending is the most important – or possibly even the only – way in which businesses can get funds to invest and grow. In reality, bank lending is just one of a number of different ways of funding business investment. Other sources include:

- internal financing (i.e. from revenue and retained earnings).
- financing via capital issues (i.e. bonds and shares)
- trade credit from suppliers (“accounts payable”)
- loans from non-bank lenders such as finance companies
- loans from friends and family
- peer-to-peer lending and crowd funding (rapidly growing sources)

Figure 1: *Financing Capital Investment*, compares the contributions of these various UK sources of finance to the funding of non-financial private corporations (excluding firms in the real estate sector). The levels of annual capital expenditure are also shown, along with gross capital formation, which includes the investment capital generated by the firms themselves. With only a couple of exceptions, external financing covered only a fraction of firms’ annual investment between 1998 and 2012. Of this external financing, banks provided less than half. In fact, in each year bank lending was equivalent to less than 25% of capital expenditure, which itself was only around 6% of the total annual expenditure by such businesses recorded in the National Accounts.

#### Does company size matter?

Looking at businesses of different sizes reveals some further insights. In the UK, Small- and Medium-sized Enterprises, or SMEs, are defined as businesses either of (a) up to 250 employees and/or (b) a turnover of less than £25.9 million. According to the Department for Business Innovation & Skills, in 2014 there were 5.25 million SMEs in the UK, making up 99.9% of all businesses. SMEs account for 60% of jobs in the private sector and jointly contribute 47% of GDP (DBIS, 2014).

WOULD THERE BE ENOUGH CREDIT IN A SOVEREIGN MONEY SYSTEM?

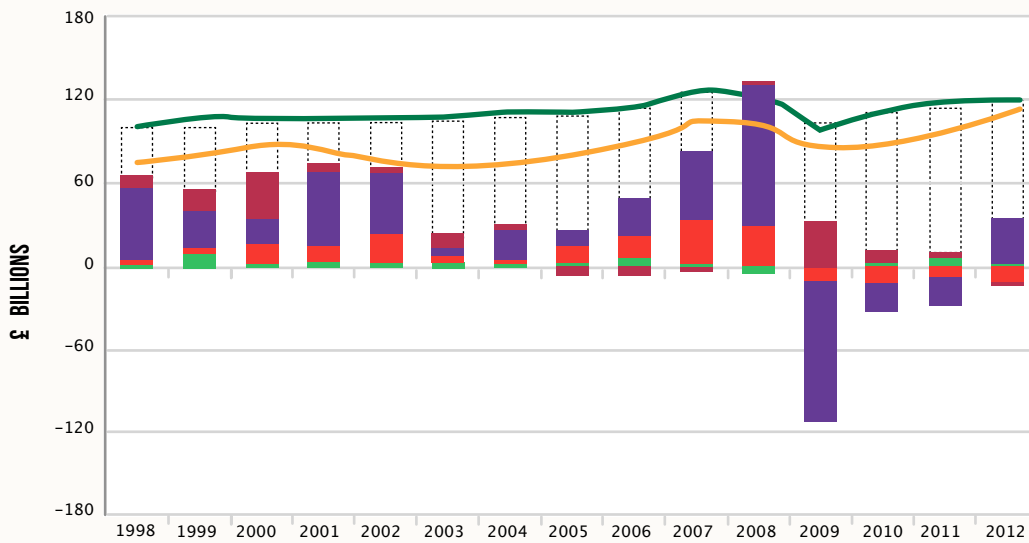


FIGURE 1: FINANCING CAPITAL INVESTMENT

KEY

- Internally financed (3)
- Capital issues (bonds and shares\*)(2)(net of redemptions/buy backs)
- Change in other loans outstanding (excl. loans to real estate sector) (1,2)
- Net change in bank loans (excl. loans to real estate sector) (2)
- Change in other accounts payable (1)
- Gross capital formation (1)
- Capital Expenditure (1)

Source: (1) Office for National Statistics (2) Bank of England Statistical Database (3) Author's calculations

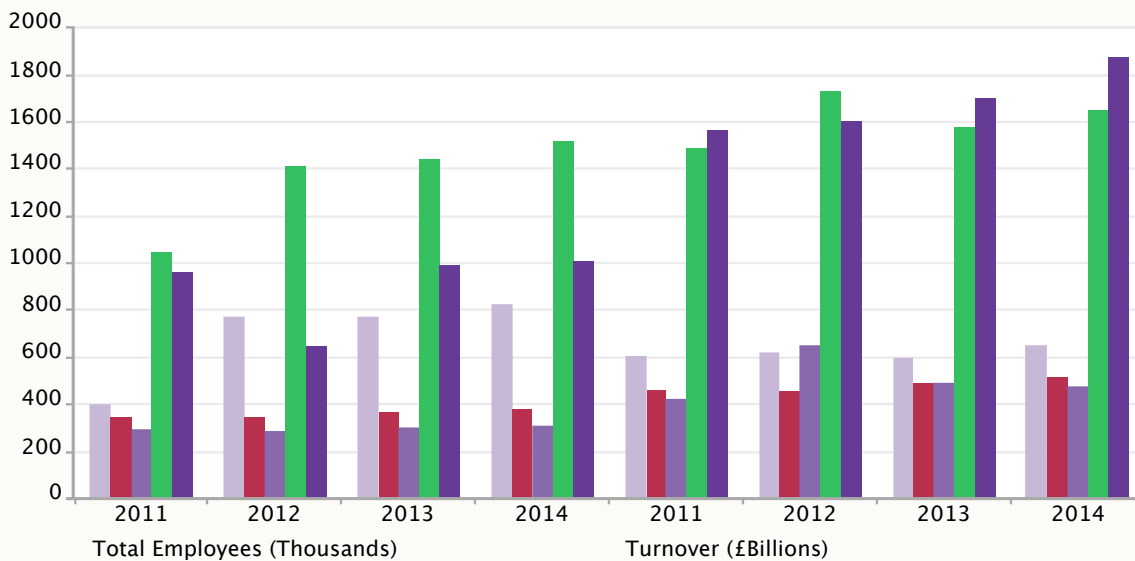


FIGURE 2: BUSINESS CONTRIBUTION TO ECONOMY (BY SIZE)

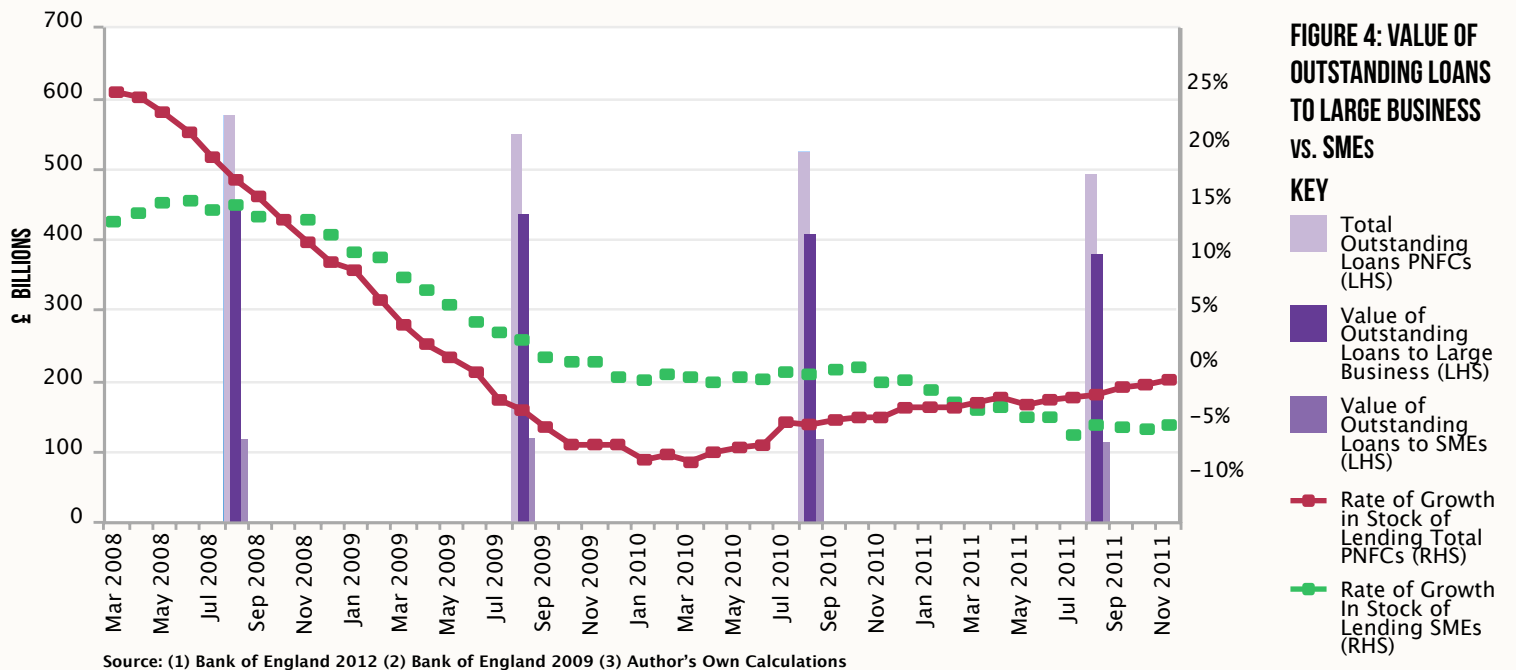
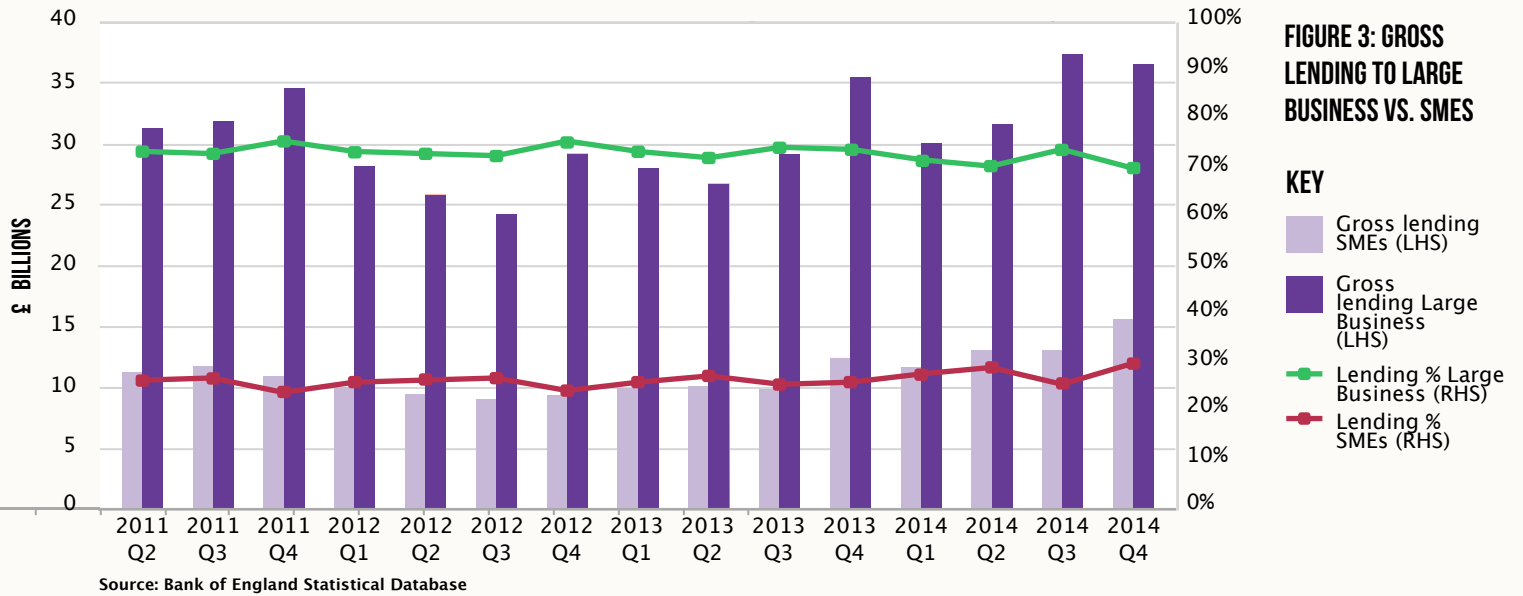
KEY

- Micro (0-9 employees)
- Small (10-49 employees)
- Medium (50-249 employees)
- SMEs Total
- Large (250+ employees)

Source: Department for Business, Innovation, and Skills

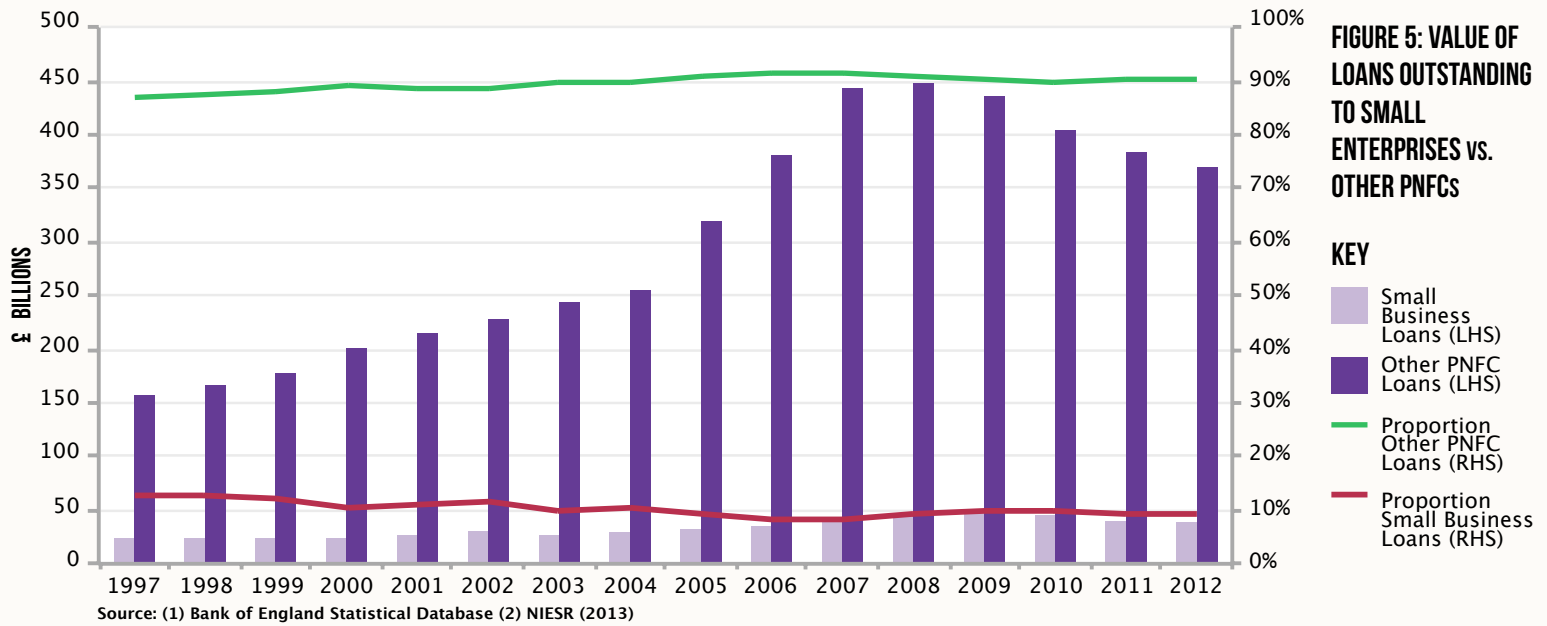
Despite their significance to the UK economy, SMEs face much greater challenges than larger companies in getting loans from banks. While long-term data is limited, Figure 3: *Gross Lending to Large Businesses vs. SMEs*, demonstrates that since 2011, 70-75% of gross bank lending to business is allocated to 'Large Businesses' (those with a turnover of more than £25million). Only 25-30% goes to SMEs. While a trend cannot be derived from just four years of data, it corresponds with the value of outstanding loans to Large Businesses and SMEs from 2008-2011 depicted in Figure 4. Indeed, the

rate of growth in the stock of lending depicted in Figure 4: *Value of Outstanding Loans to Large Business vs. SMEs*, provisionally indicates that before the crisis the difference in lending between SMEs and Large Businesses may have been even greater. According to the OECD's *Centre for Entrepreneurship, SMEs and Local Development* (2014), the share of total loans to PNFCs allocated to SMEs in the UK was 19.6% in 2007, 18.0% in 2008, 19.9% in 2009, 21.2% in 2010, 21.2% in 2011, and 21.8% in 2012.



The most long-term data we could find corroborates the above stated trends. Figure 5: *Value of Loans Outstanding to Small Enterprises vs. Other PNFCs*, shows that since 1997 the value of outstanding loans to small enterprises (classified as those with turnover less than £1 million) was between 8-13%, averaging 10% for the fifteen year period.

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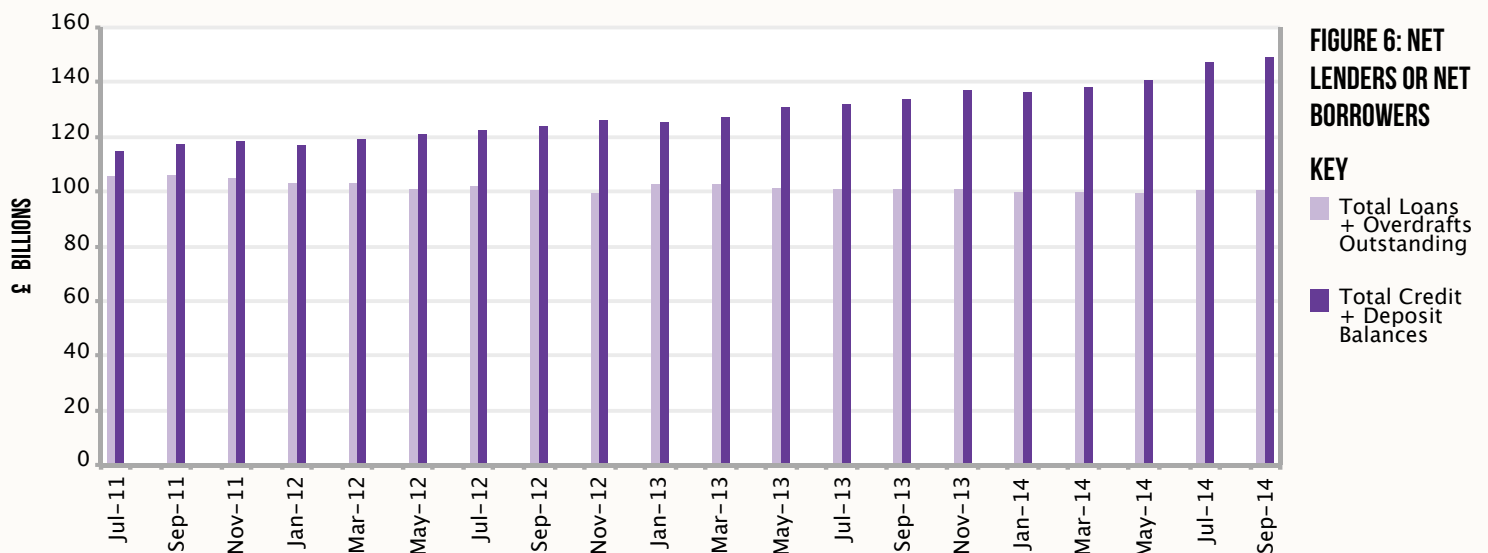


Given that SMEs have fewer sources of funding at their disposal than larger businesses (who can look to the capital markets), the lower share of bank financing going to SMEs is disproportionately low. This is especially so when SMEs account for nearly half of GDP and 60% of UK jobs.

We can already begin to see that bank lending to business may not be as important as the shortage-of-credit thesis assumes.

### SME deposits are greater than loans

With a disproportionately small share of total funding going to SMEs, it is often assumed that banks are the primary funders of bright entrepreneurs with brilliant ideas but no money to get started. In fact, for most of the last 50 years SMEs have run funds-surpluses<sup>6</sup>. SMEs had ‘a short dip into net indebtedness in 2005’, but throughout the crisis their deposits at banks exceeded their loans from banks (Demos Finance, 2014 p. 57). Since the crisis, this trend has become more prominent as displayed in Figure 6: *SMEs – Net Lenders or Net Borrowers?*





## Do banks finance entrepreneurs and start-ups?

Certain types of SMEs may be more likely than others to require external finance, a fact which may be hidden in the aggregate data above. Yet, the majority of entrepreneurs and start-ups that look to banks for such finance, are likely to be refused bank finance. Sameen & Qusted (2013) suggest why the banking sector is biased away from lending to SMEs: “Rather than being rewarded on the basis of merit, finance for many SMEs is based on banks trying to minimise exposure to unknown risks, a clear instance of market failure.” (p. 12). Consequently, lending for entrepreneurial innovation is severely curtailed, because “lenders are less interested in the value of the businesses they are lending to, and more concerned with cash flow and ability to repay the loan, [so] they are unlikely to finance innovative activities” (Sameen & Qusted, 2013, p. 45).

The high chance of being rejected may explain why so few SMEs seek bank finance. The most consistent survey data across time, represented in Figure 7: *Proportion of SME’s Seeking External Finance in Previous 6 Months*, suggests that from 2006 to 2014 between 7% and 16% of SMEs sought bank finance in the last 6 months. These statistics are corroborated by datasets from a larger survey sample size, but over a shorter period of time, depicted in Figure 8: *Applications and Current Use of Loans*. Over the last 5 years, between 7% and 15% of SMEs have actively sought a new loan/overdraft, or to renew an existing loan/overdraft.

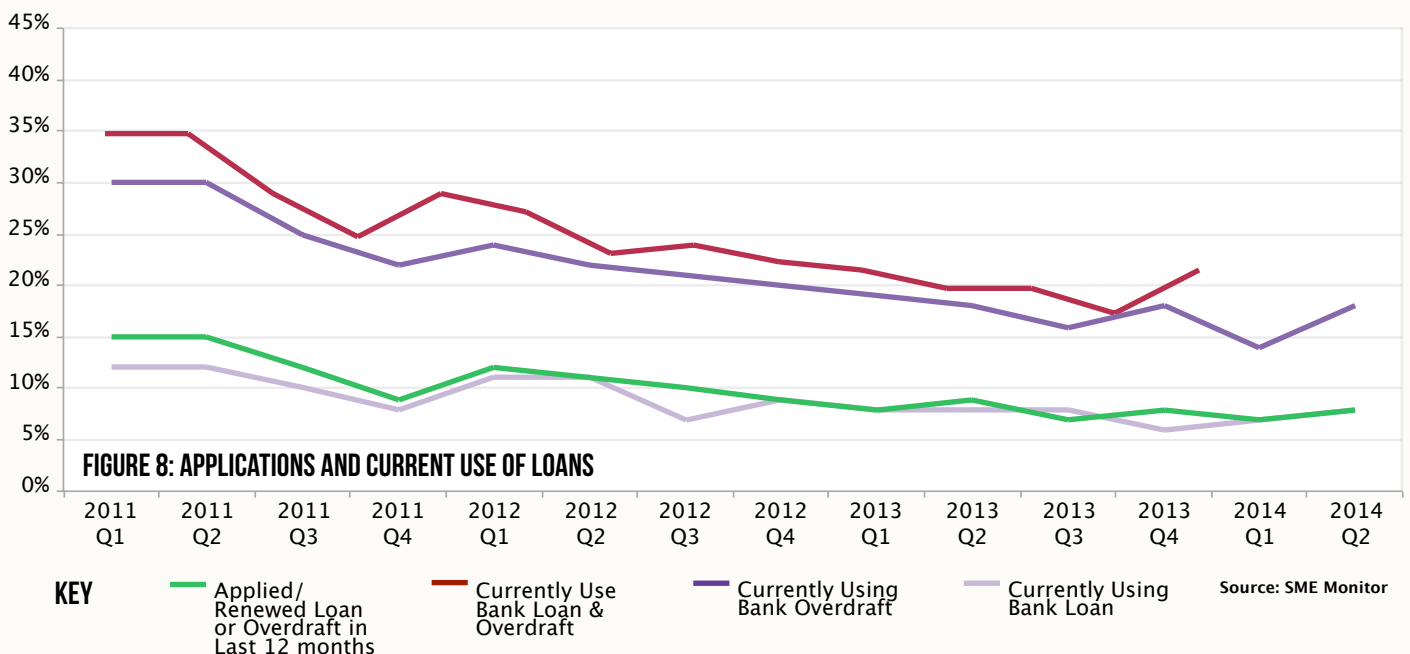
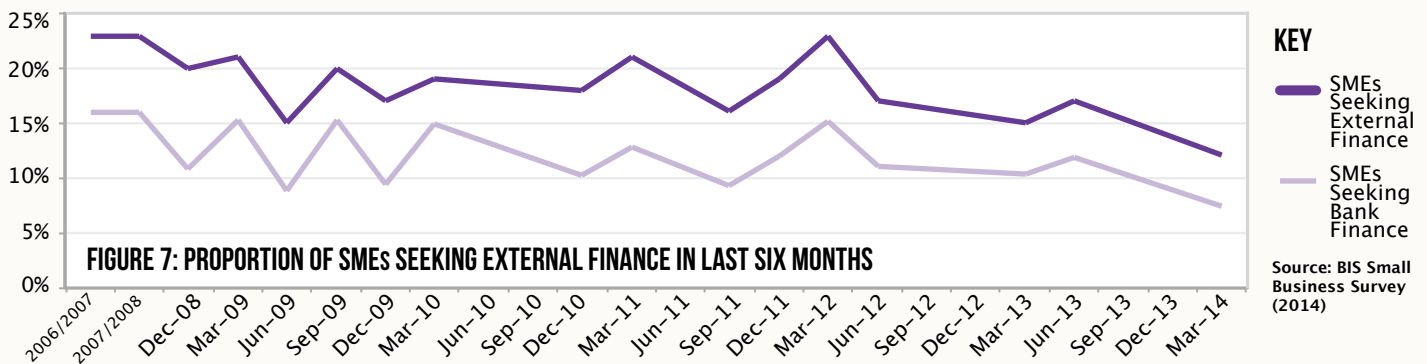
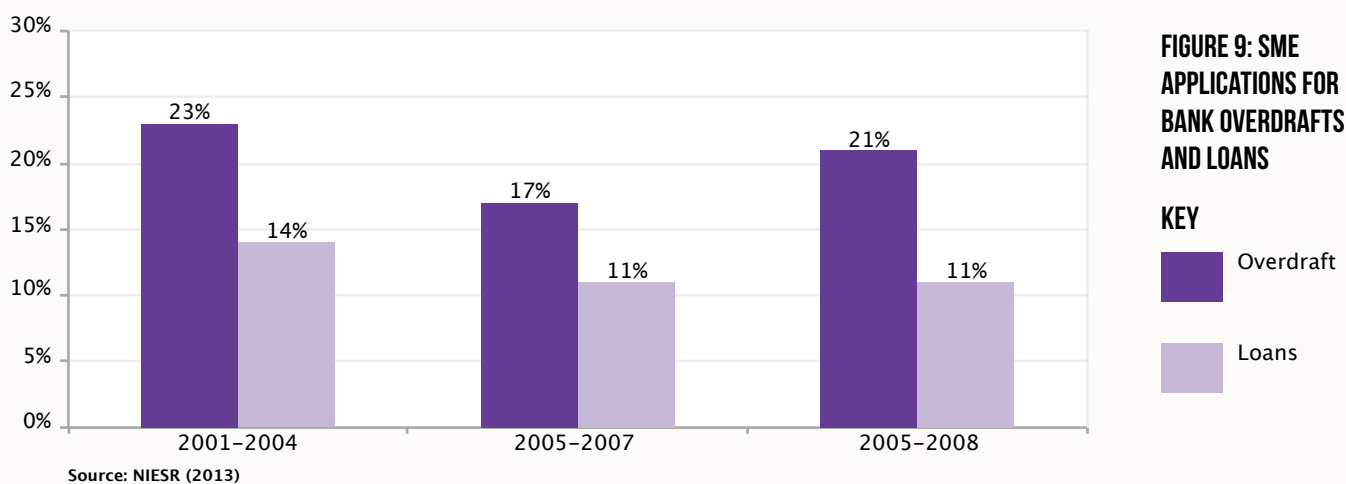


Figure 8 also shows the extent to which SMEs use bank finance. Over the course of the last four years, between 21% and 42% of SMEs made use of either a bank loan or overdraft, an average of 30% of all SMEs across the period. A report by Demos Finance (2014) suggests that the statistics in Figure 8 are actually high. Instead, it is suggested “...only 20% of SMEs use bank finance” and that “anecdotally, banks believe that the 20 per cent number feels about right given their knowledge of local business populations” (Demos Finance, 2014 p. 56).

It is also clear that the most popular source of bank finance to SMEs is overdrafts, of which 14-30% of SMEs currently make use. As Figure 8 displays, most of the funding is for liquidity purposes, ‘as a reserve against the occasional cash flow gap’<sup>7</sup>. On the other hand, only 8-12% of SMEs use bank loans.

The pre-crisis situation was very similar. Figure 9: *SME Application for Bank Overdrafts and Loans*, shows that 17-23% of all UK SMEs applied for overdrafts from 2001 and 2007, while 11-14% applied for loans (although some of these would have been refused).



## THE RISE OF ALTERNATIVE SOURCES OF FUNDING, INCLUDING PEER-TO-PEER

Banks have been largely unwilling to lend to businesses in the aftermath of the crisis, and throughout the ensuing recession. This shortage of bank lending created an opportunity for the growth of new forms of business finance, in the form of crowd funding and “peer-to-peer” lending, as firms looked for alternative means of funding. In addition, trade credit has often gone under the radar, but is actually a much more important source of business finance than is often believed.

Since the formation of peer-to-peer lender Zopa in 2005, there are now 36 companies providing loan intermediation services to match lenders with borrowers. Peer-to-peer lending platforms do not create money in the way the current banking sector does. Rather, by taking funds from savers and lending them to borrowers, they function in a similar way to banks in a Sovereign Money system. Currently only a small proportion

of these lenders provide loans to businesses, but the rapid growth of this peer-to-peer lending suggests that it will become an increasingly important source of business finance. Data from 23 of the largest of these lending companies shows that they have lent a total of £1.65 billion to date. After repayments<sup>8</sup>, the value of debts outstanding is currently in excess of £1 billion. Lending through peer-to-peer lenders has grown a thousand-fold in the 5 years from 2009, and there is likely to be considerable further growth in the future. This provides an alternative source of finance to businesses and will make bank lending relatively less important. The Bank of England's director of financial stability, Andrew Haldane, suggests that peer-to-peer lending has strong potential to oust banks from the business sector lending markets<sup>9</sup>:

“The mono-banking culture we have had since the 1990s is on its way out. Instead, we are seeing a much more diverse eco-system emerging with the growth of new non-bank groups offering peer-to-peer lending and crowd-funding, which are operating directly with a wider public.”

## TRADE CREDIT

Throughout history, trade credit has been a very significant form of business financing. It is essentially a form of business-to-business lending, and occurs whenever a business supplies goods or services without being paid immediately. Wilson (2014) explains this process in further detail, “Trade credit involves supplying goods and services to business customers on a deferred payment basis; i.e., giving the customer time to pay. Therefore, in addition to regular sources of finance such as bank overdraft, loan, leasing, bonds, venture capital and so on, firms can get short-term finance from their suppliers of goods or services” (p. 10). Trade credit is “a firm's ability to obtain merchandise, inventory, and services in exchange for its promise of future payment.” (Cole and Mishler, 1998).

Trade credit will appear on the buyer's balance sheet as accounts payable (a liability, as it represents the amount owed to the supplier of the goods or services); and for the seller, on accounts receivable (an asset, as it is the amount owed by the buyer). Trade credit is a short-term credit instrument, where total payment (plus interest if it forms part of the contract) is usually due within 30-60 days after the buyer has received the goods & services.

According to data on UK trade credit taken from 1.09 million companies (Wilson, 2014), in 2012 the total value of outstanding trade credit was over £327 billion<sup>10</sup>, with an average maturity period of 55 days. To put this into context, trade credit outstanding was 1.7 times larger than the total value of loans outstanding from banks to the entire business sector for this period. Figure 10: *Outstanding Trade Credit vs. Bank Lending*, shows how trade credit is a more important form of short-term finance than bank lending<sup>11</sup>. Importantly, the change to a Sovereign Money system has no impact on trade credit provision by businesses.

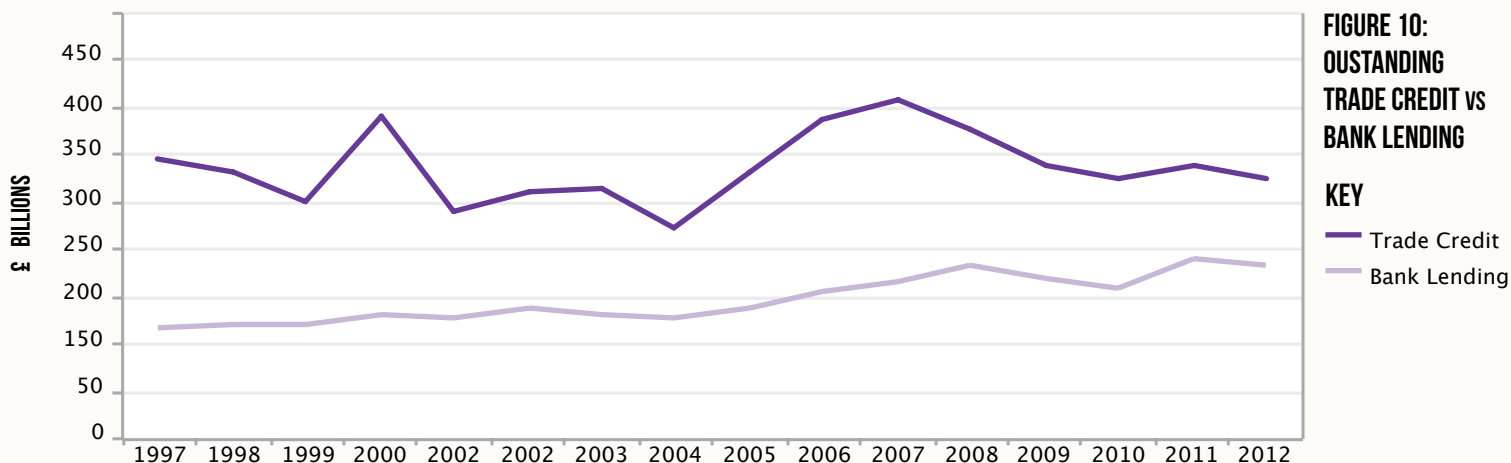


FIGURE 10:  
OUTSTANDING  
TRADE CREDIT vs  
BANK LENDING

KEY  
Trade Credit  
Bank Lending

Source: 1) Wilson 2014 (2) Bank of England Statistical Database

## In summary

While bank lending is an important source of funding to businesses, it is not the largest or most significant source. In most years, other channels of funding, such as retained profits earned by the business and trade credit, play a greater role. In the future, the increasingly significant role of peer-to-peer finance in debt-markets is likely to further reduce the importance of bank lending to business. Bank lending is not as important for the financing of either business investment or small and medium sized businesses, as the shortage-of-credit thesis assumes.

## ASSUMPTION 2: A LACK OF ACCESS TO BANK LOANS IS THE MAIN CONSTRAINT ON THE GROWTH OF BUSINESSES

Any business faces some constraints on its growth (in terms of sales revenue or employment). However, many of the critics of Sovereign Money proposals implicitly assume the primary constraint on a business's growth is whether or not the business can get access to loans. Entrepreneurs are assumed to be standing ready to invest and employ more people, but are held back because they can't access the funding to do so. Any limit on lending to businesses would most likely choke off economic growth. The empirical data that follows however, shows that business growth is primarily constrained by demand. The availability of credit only becomes a constraint on the growth of businesses, after there is sufficient demand for their goods and services.

In the UK, USA and Europe, regular surveys of businesses ask them about the constraints on their growth. These surveys show that most businesses consider access to finance as one of the *least* significant constraints on business growth. In the UK, obtaining finance was identified as the most significant obstacle to growth for just 7% of all SMEs (see Figure 11: *Primary Obstacle to UK SME Success (2013)*) and just 5% of SMEs that were shrinking. Figure 13: *Single Most Important Problem to Small Businesses (USA-2013)* shows that in the USA only 2% of SMEs cited obtaining finance as the main obstacle to their growth.

The obstacles facing European SMEs were not ranked in order in the survey. However, only 25% of businesses listed difficulty in obtaining finance as one of the barriers to their growth, meaning that 75% of businesses did not consider it an obstacle. Economic uncertainty, regulations, energy costs, and a shortage of orders were cited more often as a constraint on growth than access to finance (see Figure 12: *Percentage of European SMEs Citing Factor as Constraint on Growth (2013)*).

Over the course of the past five years only 3-4% of all UK SMEs either *applied* for a new overdraft facility, or applied to renew an existing one. Similarly, only 2-3% of all UK SMEs either applied for a new bank loan, or sought to renew an existing one<sup>12</sup>.

So, what are the real limits on businesses' growth? Across the board businesses are reporting that **economic conditions and consumer demand** are the greatest constraints on their growth.

FIGURE 11: PRIMARY OBSTACLES TO UK SME SUCCESS (2013)

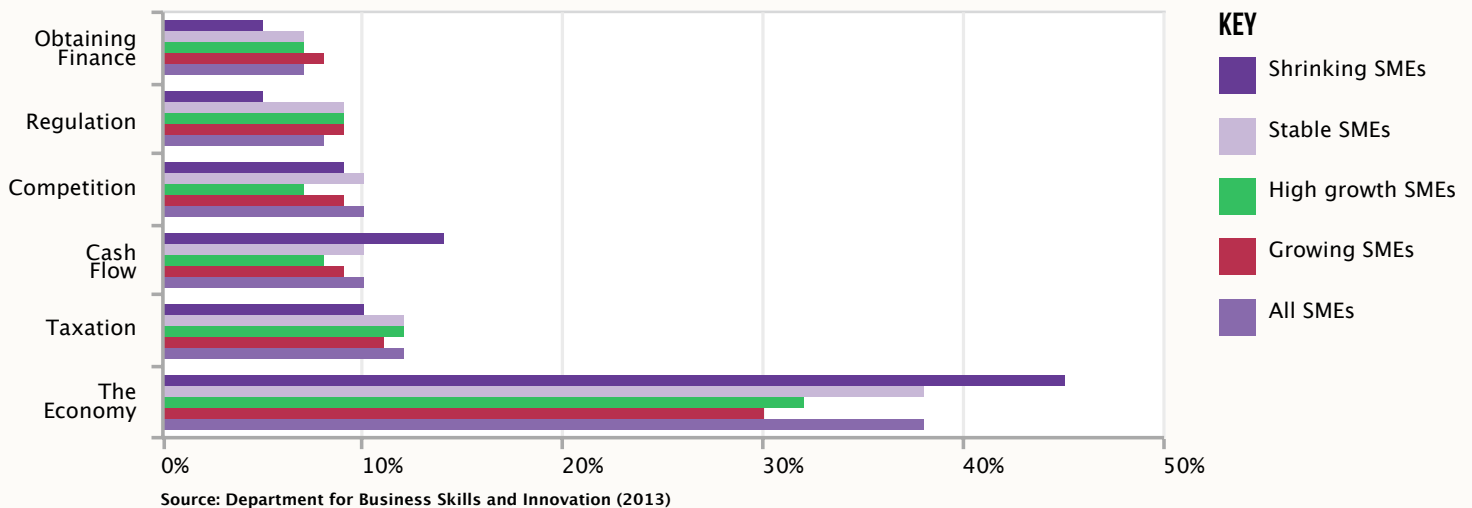


FIGURE 12: PERCENTAGE OF EUROPEAN SMES CITING FACTOR AS CONSTRAINT ON GROWTH (2013)

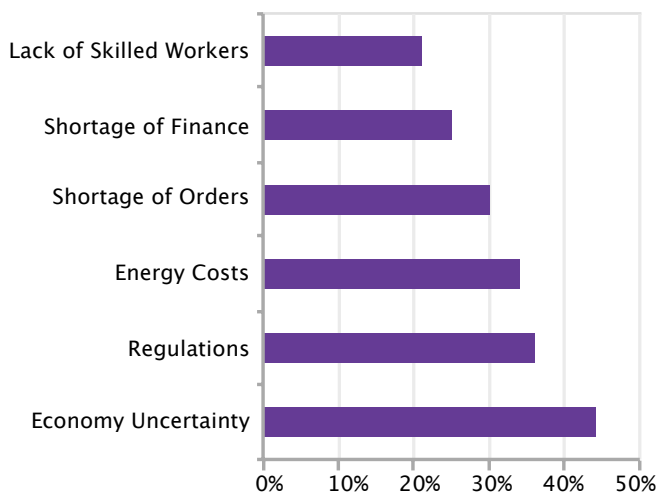
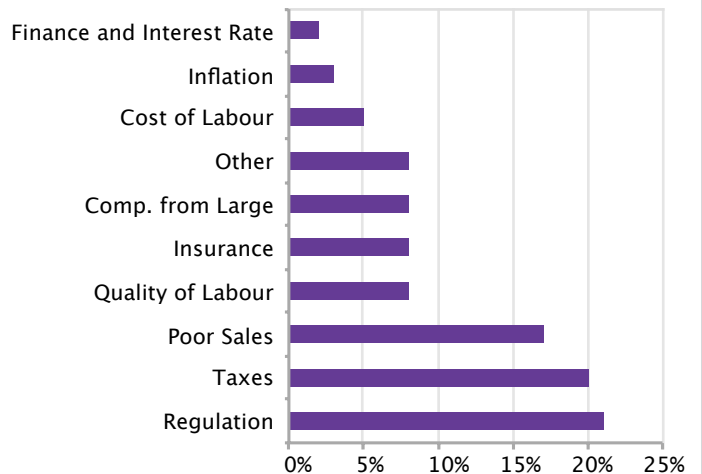


FIGURE 13: SINGLE MOST IMPORTANT PROBLEM TO SMALL BUSINESSES (USA - 2013)



In the UK, 38% of all SMEs (and 45% of SMEs that were shrinking) cited the state of the economy as the biggest obstacle to growth. In the USA, from 2008 to 2013 poor sales were considered the primary constraint on growth (NFIB, 2013). In Europe, the majority of businesses cited economic uncertainty and a shortage of orders as a constraint on growth.

This data supports the proposition that business growth and entrepreneurial expansion are primarily driven by the demand for goods and services. Successful businesses will only apply for bank loans when there is sufficient demand for their goods and services; or when businesses anticipate a potential future increase in demand. The condition of the market, and consumer demand, are more significant determinants of business growth than access to finance or bank lending. This point is nicely stated by Professor William Dunkelberg, chief economist for the American Nation Federation of Independent Business since 1971:

"If lending is picking up, it is because customers are showing up and there is a reason to invest and hire. The reverse doesn't work – you can't force feed the credit to [business] owners and have more customers suddenly show up (even interest free loans would have to be repaid!). That's 'pushing on a string'. Just ask the banks." (2011, p. 1)

The point here is not to downplay the role of credit as a constraint on business. The supply of credit to business is essential to growth. However, consumer demand is the first and foremost constraint on business expansion. Only after aggregate demand picks-up, will business growth become increasingly constrained by access to finance.

### **ASSUMPTION 3: THE LEVEL OF EXISTING SAVINGS IS INSUFFICIENT TO FINANCE BUSINESS LENDING**

In a Sovereign Money system, private banks would not be able to create new money when they lend. Instead, they would need to attract funds from savers, through Investment Accounts, *before* they could lend. The shortage-of-credit thesis claims that the level of existing savings would be insufficient to finance business investment. This implies that when aggregate demand is increasing, without the ability to create additional new money, banks would be unable to meet the demand for loans from businesses.

However, this claim overlooks a key difference between the current system and a Sovereign Money system. In the current system, as section 1 showed, loan repayments have the effect of destroying money. This is because a loan repayment is processed by simultaneously reducing the value of both the loan account and the borrower's bank account balance<sup>13</sup>. To replace the money that was 'destroyed', the bank must issue a new loan, creating new money.

In contrast, in a Sovereign Money system, loan repayments would not result in the destruction of money (as discussed in Section 1.1). Loan repayments would be made

by borrowers transferring sovereign money from their Transaction Accounts to banks' Investment Pools. Banks could then re-lend this sovereign money to other borrowers. (In some cases, banks would need to use some of the funds to repay existing Investment Account holders – the original providers of the money that was lent).

The fact that loan repayments would not destroy money in a Sovereign Money system is significant because it means that every loan repayment represents incoming funds flowing to banks. Because funds held at the Bank of England would earn no interest, the bank has a strong incentive to re-lend those funds in order to continue earning interest and generating profit. **In a Sovereign Money system, loans can be funded mainly by the flow of repayments from earlier borrowers.** New funds from investors or savers would only need to be found if it was necessary to *increase* the overall amount of lending to businesses.

An analysis of lending data for 1997-2013 shows that in a Sovereign Money system, the flow of new savings (new time deposits) and loan repayments would have been sufficient to finance new loans.

To calculate this, we assume that the amount in customers' Investment Accounts would be equivalent to existing time deposits (recorded in the Bank of England statistics under M4). These time deposits exist because the customers in question made an active choice to 'tie up' their funds for periods of time, making them functionally equivalent to Investment Accounts in a Sovereign Money system<sup>14</sup>.

Figure 14: *Funding of Quarterly Gross Lending*, compares gross lending by banks to borrowers in the household and private non-financial corporations sectors, from 1997 to 2013. It is broken down into their component loan categories, with the total levels of financing available from the different funding sources illustrated by the columns, and the demand for lending exhibited by the line chart. This shows the extent to which reliance upon the flow of new savings and repayments would have met the total demand for lending over the last fifteen years.

There is an apparent funding shortfall represented by the gap between the top of the funding bars and the total gross lending line. However, this corresponds almost exactly with the explosion of house prices between 1999 and 2007.

Without this money creation, home buyers would have been less able to bid prices up to these levels. Consider the following three assumptions:

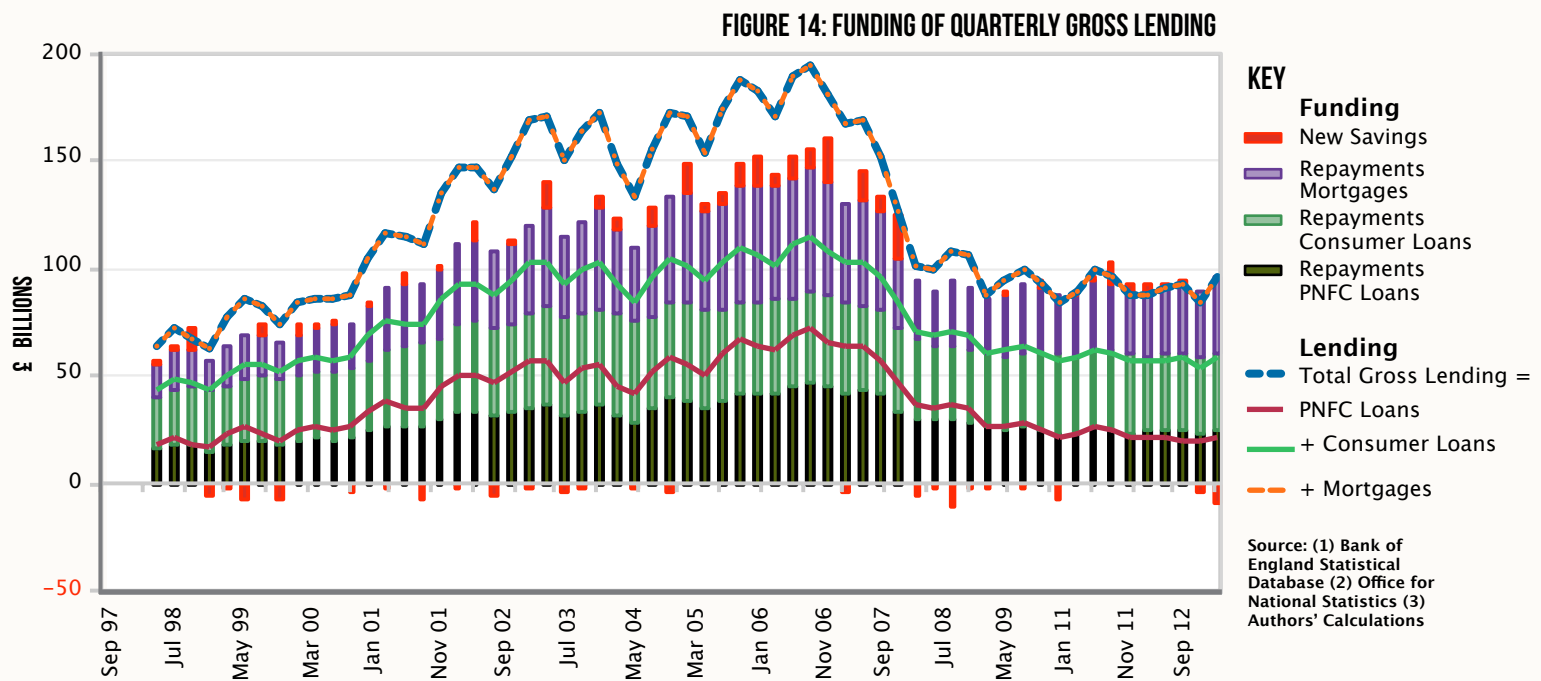
1. Prices would have risen instead at the 6% per year (after accounting for all housing bubbles since 1987).
2. The same number of property transactions would have occurred anyway (based on Land Registry figures available since 2005).



3. Lending to consumers and non-financial private corporations would have been met in full, at the levels actually achieved, from loan repayments and savings alone.

Based on these three assumptions, it becomes clear that the remaining available funding from these sources would have been at least sufficient to have provided 70% loan-to-value mortgages on each house sold since 2005.

As suggested in Section 1.1, a Sovereign Money system as described in *Modernising Money* could be expected to provide less credit overall than the current system during its boom phase. Thus, what Figure 14 ultimately shows is that a Sovereign Money system would provide a sufficient but ‘non-inflationary’ supply of credit, including credit to the housing market.



What about lending to the financial sector (which is not included in Figure 14)? The UK National Account shows banks have £670 billion on loan to financial corporations. Of these loans, 90% have a maturity of less than 12 months. A repayment rate of just 10% per month (a conservative estimate) could make a further £60 billion a month (about 50% of monthly GDP) available for new lending. However, lending to the financial and shadow banking sector could result in high levels of speculative activity, so a reduction in lines of credit to these sectors is probably desirable. It would be even better if some of this lending were redirected towards the real (GDP-contributing) economy.

Moreover, the Sovereign Money system is designed so that aggregate demand for credit will decrease over time. Creating and injecting Sovereign Money funds into the real economy, through either government spending or direct distribution to citizens, will increase the disposable income of households. The recipients of these funds could



either spend them or make them available for lending via Investment Accounts. Extra spending would lead to increased revenues (and thus profits) for firms, which could be re-invested into the business. If firms can finance more of their investment from retained profits, they will need to borrow less, and demand for credit will decrease. If funds are made available for lending via Investment Accounts, this will increase the level of credit available to the economy, normally leading to lower interest rates.

In summary, a Sovereign Money system would provide enough credit to meet demand for lending from the business sector and other sectors of the economy, but not enough credit to fuel rapid house price inflation. As a safety measure, any serious shortage of credit could be made up by the Bank of England lending to commercial banks to on-lend to credit worthy borrowers and businesses.

## **ASSUMPTION 4: BANKS CREATE AN APPROPRIATE AMOUNT OF MONEY FOR THE ECONOMY AS A WHOLE**

A primary reason for implementing a Sovereign Money system is that it would help to dampen the pro-cyclical nature of credit cycles and make the economy more stable. However, critics have argued that Sovereign Money will lead to economic instability due to a shortage of credit. Underlying this argument is the implicit notion that, in the current system, banks tend to create an appropriate, or optimal, amount of money for the economy. This notion ignores the reality that banks create too much money during boom times (fuelling the boom and funding speculation), and create too little in the aftermath of a bust (worsening the recession).

Banks, like any other private sector entity, are profit-seeking enterprises. However, banks are special in that the majority of their profits are earned through the process of money creation. This means that banks can maximise profits by creating more money, and thus they have an inherent incentive to do so. During periods of economic stability, banks are naturally eager to lend to the extent that they eventually create too much money, which eventually leads to instability. Based on case study evidence from 14 advanced economies in the period between 1870 and 2008, Schularick and Taylor (2010) show that credit growth is the most powerful variable in forecasting financial crises: “The long-run record shows that recurrent episodes of financial instability have more often than not been the result of credit booms gone wrong...[and] that the credit system matters above and beyond its role as propagator of shocks...” (p. 29).

Figure 15: *Where do Banks Lend to*, shows that in the period leading up to the crisis, the banking sector more than doubled the total money stock. The vast majority of this newly created money went to the property market and financial sector. By creating extra spending power, private banks artificially increased demand for the assets within these markets, and thus their prices went up (as supply in such markets

responds extremely slowly to demand). Higher asset prices attracted speculators, who mainly used bank lending to finance their purchases. Consequently, a self-reinforcing inflationary process followed, where an increase in demand for such assets would increase their price, which would prompt more borrowing, leading to further increases in their price etc.

Significantly, as the vast majority of lending was used to buy pre-existing assets in the property and financial sectors, it increased the level of private debt but did not lead directly to an increase in national income. Therefore, the level of debt was increasing while the earning capacity of the economy (private sector incomes) remained unchanged, making the economy more susceptible to shocks (Minsky, 1984).

The rate of private debt could not outpace the rate of GDP growth forever, and the rate of lending and new money creation eventually slowed down (Jackson, 2013). The fall in demand for property and financial assets pushed down their prices.

FIGURE 15: WHERE DO BANKS LEND TO?

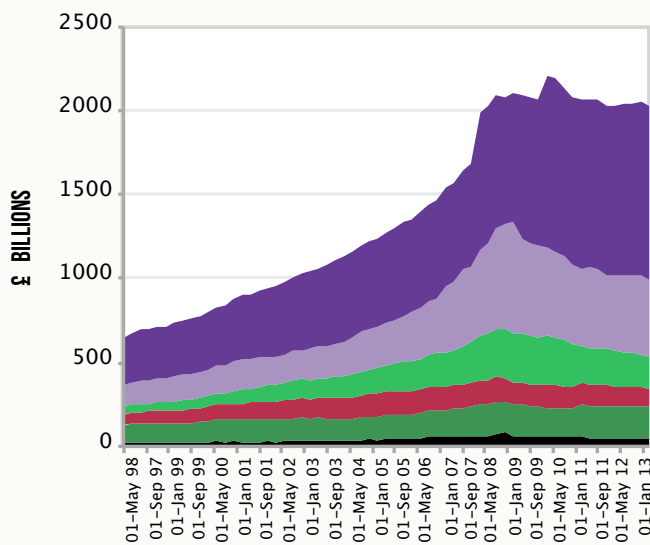
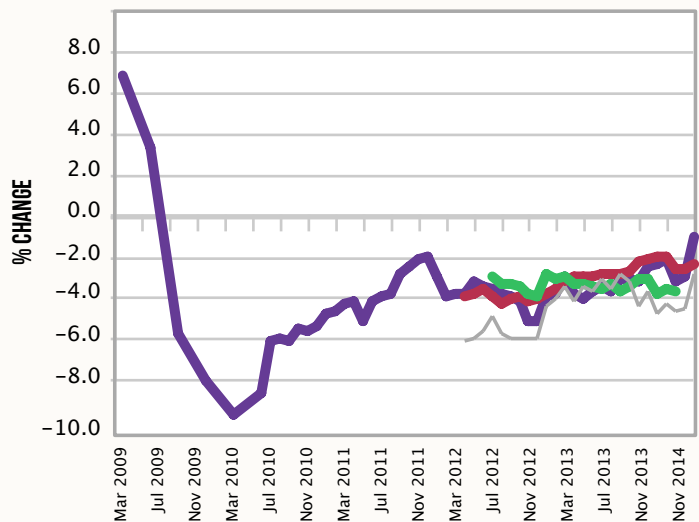


FIGURE 16: NET BANK LENDING TO UK BUSINESSES



Sources: Bank of England Statistical Database

**KEY**

- Mortgages (and other secured loans to individuals)
- Financial sector
- Real estate companies
- Credit cards and other unsecured personal loans
- Businesses outside the financial sector
- Public sector organisations

**KEY**

- Non-financial businesses
- Bank of England SMEs
- BBA SMEs
- Large businesses

Many assets had to be sold quickly and on the cheap (“fire sales”) to repay the loans that were taken out to finance their purchase. Therefore, the prices of these assets fell further, demand for them decreased, and their prices fell even more. This eventually prompted a solvency crisis in the shadow and commercial banking sector because the value of the assets on their balance sheets decreased, yet their outstanding liabilities remained the same.

In the aftermath of a bust, efforts are made to deleverage and a greater portion of incomes are dedicated to servicing debt repayments. Consequently, spending declines, profits diminish, borrowers cannot service debts, and banks become somewhat reluctant to lend (as they are unsure of borrowers' ability to service loans). When total loan repayments are greater than new lending, more money is being destroyed than created. Consequently the money stock shrinks, spending power decreases, and aggregate demand for goods and services declines.

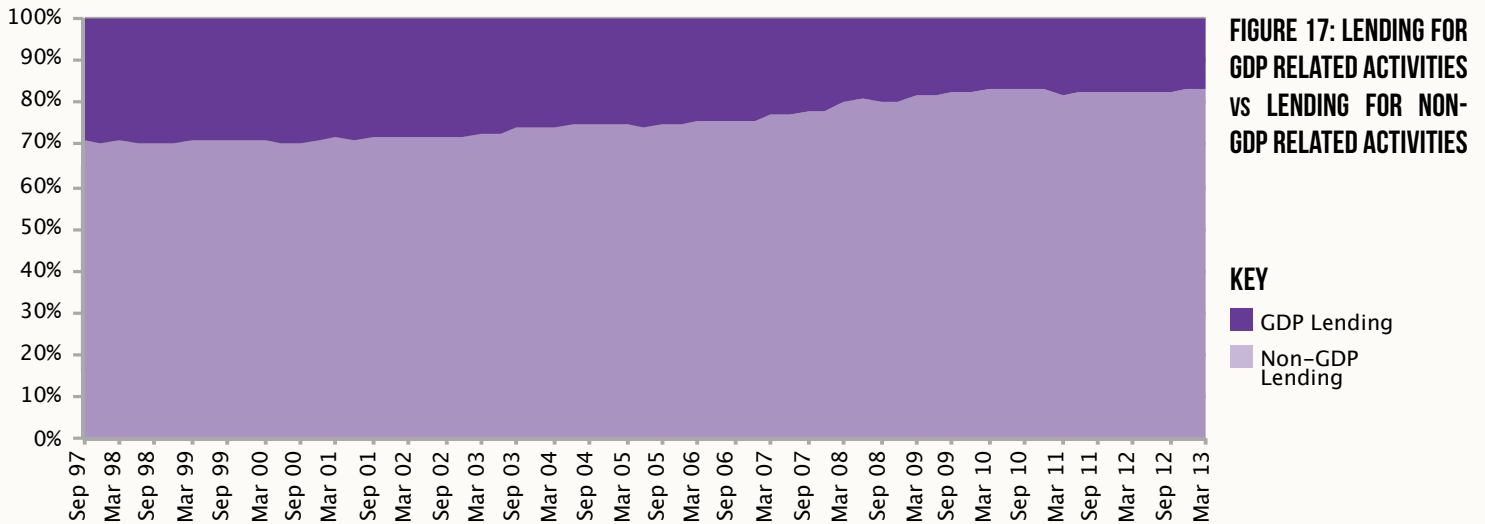
Figure 16: Net Lending to UK Businesses<sup>15</sup>, shows how the level of net bank lending to businesses has significantly decreased since the crisis. Businesses have clearly been more concerned with paying down debts than taking out new loans, resulting in more money being destroyed than created. This implies that five years on, the total stock of lending to business has diminished and is still below pre-crisis levels.

In short, the current monetary system leads to sub-optimal levels of money creation. Periods of relative economic stability turn into unsustainable booms – leading to asset bubbles and financial market volatility – as too much money is created too quickly. When a bust eventually follows, the rate of loans being repaid outpaces the rate at which new money is created, not enough new money is created and spending power is withdrawn from the economy. Money creation under the current system is therefore extremely pro-cyclical and does not consistently produce an appropriate or optimal amount of money for the economy as a whole.

## **ASSUMPTION 5: BANK LOANS PRIMARILY FINANCE ACTIVITIES THAT LEAD TO ECONOMIC GROWTH**

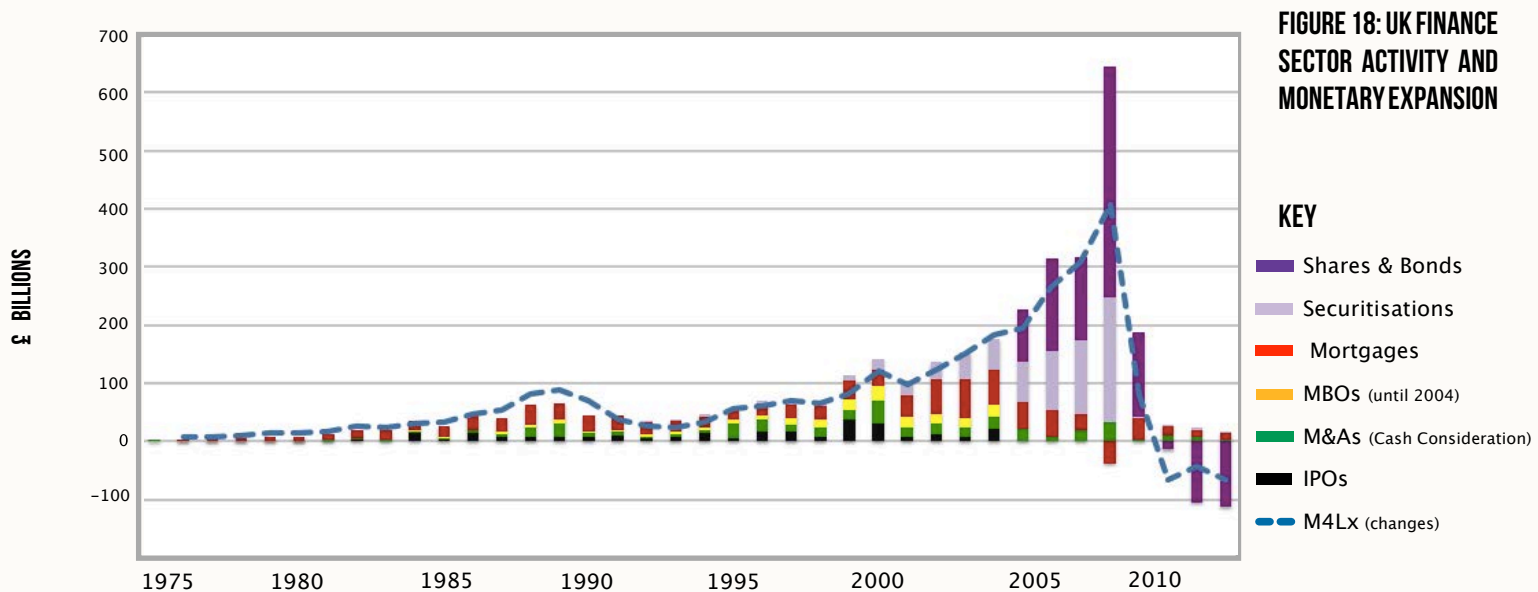
The shortage-of-credit thesis implicitly assumes that the vast majority of new money creation by private banks is directed towards activities that generate GDP growth. In reality, the bulk of net new money creation is used for the purchase of pre-existing real estate and financial assets that do not contribute directly to growth in GDP.

Business lending is eclipsed by the level of lending and new money creation for other sectors within the economy. Between 2000-2007, private banks created an extra £1 trillion worth of new money, effectively increasing the money stock by 2.5 fold. 31% of the net increase in new loans (i.e. the new money created by bank lending) went to fund mortgages, another 20% to fund commercial real estate loans, and 32% to the financial sector. These sectors are collectively referred to as the 'financial' economy, the FIRE (Finance, Insurance, and Real Estate) sector of the economy. For the large part, the activities of the FIRE sector do not contribute to growth in output; rather they support the non-productive market in existing real and financial assets. (Of course, estate agent fees, construction of new buildings, and financial advice is recorded as part of GDP, but trading and restructuring of existing financial or property assets is not.)



Source: Bank of England Statistical Database

In contrast, a relatively small percentage of lending went to the sectors of the economy that directly produce goods and services, otherwise referred to as the ‘real’ economy. From 2000-2007, businesses received 8% of the net increase in new lending, whilst 8% went to consumer lending (which would provide demand for their products). The residual 1% went to public sector organisations. Thus, as *Figure 17: Lending for GDP Related Activities vs. Lending for Non-GDP Related Activities*, shows the bulk of gross bank lending goes to sectors of the economy that have a very limited contribution to economic output (GDP), whilst lending for activities that increases the production of real goods and services has stagnated. The growing proportion of new money created for the financial economy is most likely due to market dealers using securities as collateral for new loans, which finance the purchase or borrowing of even more securities. While only a tiny proportion of net new securities are issued by non-financial



Source: Bank of England Statistical Database

businesses, money market dealers often use these securities as collateral for new loans<sup>16</sup>. These new loans are spent into the financial economy, as market dealers use their newly acquired money to buy or borrow additional securities.

*Figure 18: UK Finance Sector Activity and Monetary Expansion*, shows that this clearly applies to securitisations and the vast majority of newly issued securities. Increases in financialisation activity are consistently followed by a corresponding expansion of the money stock. When used in this way, this newly created money merely drives up the prices of pre-existing real and financial assets, and does not directly finance any GDP related activities.

Increases in consumption spending and business investment collectively create the additional aggregate demand that eventually leads to GDP growth. Indeed, it is total spending – including spending of existing money – that is vital to GDP growth, not new money creation per se. New money creation is only important to GDP growth if it finances new spending for goods and services in the real economy, or facilitates GDP contributing processes (e.g. through investment in productive capacity). Spending within the financial economy, on pre-existing real estate and financial assets, does not add any new goods or services to the economy, and hence it does not increase GDP output.

With the bulk of new money creation going to the financial sector, it is apparent that only a small proportion of new money creation actually finances spending and business investment in the real economy. This suggests that the majority of GDP-contributing activities are funded by the spending of deposits that already exist – not by the spending of newly created money. Therefore, removing the power of banks to create money is unlikely to have a large negative impact on GDP. Any negative impact could easily be cancelled out by the creation of new money by the Bank of England, should that prove to be necessary.

## PART 3: CONCLUSION

This paper shows that the performance of the real economy is much less dependent on the ability of banks to create money than critics of Sovereign Money proposals have assumed. Empirical evidence suggests that a Sovereign Money system should be able to provide an adequate (but non-inflationary) level of business lending, mortgages and consumer loans. In addition, by getting more money into the hands of households, a Sovereign Money system is likely to do more to boost employment and economic activity than any increase in business lending. The Sovereign Money proposal is therefore worthy of more serious consideration than critics have given it so far.

## APPENDIX 1: POSITIVE MONEY PROPOSALS

The following is a brief overview of Positive Money's proposals for a Sovereign Money system.

First, the power to create all money, both cash and electronic, would be restricted to the state via the central bank (such as the Bank of England, European Central Bank or Federal Reserve). Changes to the rules governing how banks operate would still permit them to make loans, but would make it impossible for them to create new money in the process.

Banks would then serve two functions:

- 1) The payments function: Administering payment services between members of the public and businesses, and holding funds safe at the central bank until they need to be spent.
- 2) The lending/saving function: acting as an intermediary (middleman) between savers and borrowers.

The payments function would consist of Transaction Accounts held by businesses and members of the public. The funds in these accounts would not be deposits created by the banks (an IOU from the bank to a customer), but electronic Sovereign Money, created by the central bank. These transaction funds would be electronically stored at the central bank and would legally belong to the customer. The transaction funds would be entirely risk-free, as they could not be invested or placed at risk by the bank. The bank would provide the payment services (such as cheque books, debit cards, internet banking, and ATMs) that would allow customers to use their Sovereign Money to make payments. The accounts would be interest-free, and banks would be able to charge account fees for providing these services.

The intermediary function of banks would take place through Investment Accounts. A customer wishing to earn interest would transfer funds from their Transaction Account into an Investment Pool owned by the bank. The bank would then set up an Investment Account for the customer, which would be a liability of the bank representing the investment made and the bank's obligation to repay the funds in the future. The customer would have to agree to either a notice period required before accessing his/her money, or a maturity date on which the investment will be repaid. There would be no 'instant-access' investment accounts.

Banks would perform the function of pooling funds from Investment Account holders, and then lending these funds to a range of borrowers and for a range of purposes, thus diversifying risk on behalf of savers. Investment Accounts would not be guaranteed by the government, and would therefore be risk-bearing, with the risk shared between the bank and the customer according to the type of account chosen by the customer.<sup>18</sup> Regulators might impose equity requirements and other prudential rules against such accounts to prevent reckless behaviour by banks.

Investment Account balances could not be reassigned to others as a means of payment, to prevent them functioning as a substitute for money. Banks would therefore become true intermediaries in the way that many people currently believe them to be. The central bank would be exclusively responsible for creating as much new money as was necessary to hit the target given by government. (In the version of the proposals put forward in *Modernising Money* we assume the target of monetary policy would not change). It would manage money creation directly, rather than using interest rates to influence borrowing behaviour and money creation by banks (as is the case at present).

Decisions on money creation would be taken independently of government, by a newly formed Money Creation Committee (or by the existing Monetary Policy Committee). The Committee would be accountable to the Treasury Select Committee, a cross-party committee of Members of Parliament who scrutinise the actions of the Bank of England and Treasury. The Committee would no longer set interest rates, which would now be set in the market.

The central bank would continue to follow the remit set for it by the nation's finance minister or chancellor. In the UK this remit is currently to deliver "price stability" (defined by an inflation target of 2%), and subject to that, to "support the Government's economic objectives including those for growth and employment." The inflation target would act as a limiter to stop the creation of money becoming excessive (or as a trigger to increase money creation if deflation became a risk). But subject to the target, the central bank would be able to create additional money.

Any new money the central bank created would be transferred to government and injected into the economy in four possible ways:

- 1) To finance additional government spending
- 2) To finance tax cuts (with newly created money substituting for the lost tax revenue)
- 3) To make direct payments to citizens, with each person able to spend the money as they see fit (or to invest or pay down existing debts)
- 4) To pay down the national debt

A fifth possibility (which would be central to the flexibility of the money supply) would allow the central bank to create money for the express purpose of funding lending to businesses. This money would be lent to banks with the requirement that the funds be used for "productive purposes". Lending for speculative purposes, or for the purpose of purchasing pre-existing assets, either financial or property, would not be allowed.

The central bank could also create and lend funds to other intermediaries, such as business-oriented peer-to-peer lenders or regional or publicly owned business banks. This would ensure that a floor could be placed under the level of lending to businesses,

guaranteeing support to the real economy. Within the limits imposed by the central bank on the broad purposes for which this money may be lent, lending decisions would be entirely at the discretion of the lending institutions.

All of the above mechanisms should be open to scrutiny by both parliament and the general public.

More detail on the proposals above is available in the paper *Creating a Sovereign Money System* and in the book *Modernising Money: Why our monetary system is broken and how it can be fixed*, by Andrew Jackson and Ben Dyson.



## END NOTES

<sup>1</sup> Such as Wolf (2014), Turner (2014), Keen (2011), Benes & Kumoff (2012), Huber (2014) to name but a few.

<sup>2</sup> Including Positive Money and all members of the International Movement for Monetary Reform (see <http://internationalmoneyreform.org/>), New Economics Foundation, American Monetary Institute, and Finance Watch.

<sup>3</sup> Including but not limited to Fisher (1936), Soddy (1933), Simons (1948), Friedman (1960), Tobin (1987), Kay (2009), Kotlikoff (2010) and Benes and Kumoff (2012).

<sup>4</sup> ‘Productive’ in this sense refers to economic activities that contribute to and are measured in GDP. For example, the production of cars, or services such as hairdressing, are included. The construction of new houses is included, but the sale and purchase of secondhand homes is not (with the exception of estate agents fees, which are included as part of GDP).

<sup>5</sup> This includes loans by UK monetary financial institutions to non-financial business in both sterling and foreign currency, expressed in sterling. Non seasonally adjusted and excludes overdrafts.

<sup>6</sup> As Demos Finance (2014) points out, “Only from the late 1980s to the mid-1990s [with a dip in 2005] did a higher percentage of SMEs borrow from the banks to the extent that the group as a whole became net borrowers.” (p. 57).

<sup>7</sup> Demos Finance (2014, p. 56)

<sup>8</sup> The levels of repayment are available for only 16 of the 23 companies, and show that £890 million is still outstanding for those 23 companies. We have assumed that this repayment rate also applies to the other seven companies.

<sup>9</sup> See: <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/9749573/Crowdfunding-could-revolutionise-lending-says-Andrew-Haldane.html>

<sup>10</sup> Calculated at 2010 constant prices.

<sup>11</sup> The significance of trade credit to business growth leads Wilson (2014) to suggest, “...The stocks and flows of trade credit are typically twice the size of those for bank credit and trade credit flows...In the UK corporate sector it is estimated that more than 80% of daily business-to-business transactions are on credit terms...trade credit, is thus the most important and largest form of short-term financing for the corporate sector.” (p. 3).

<sup>12</sup> See ‘SME Monitor Reports’ at <http://bdrc-continental.com/products/sme-finance-monitor/>

<sup>13</sup> In accounting terms, the loan repayment is processed by crediting the asset “Loan outstanding” (which reduces its balance) and debiting the liability “Borrower’s Current Account” (which also reduces its balance). The deposits in the borrower’s current account, which were included as part of the money supply, ‘disappear’. In effect, bank account money has been destroyed.

<sup>14</sup> It is likely that the amount available to lend would be higher than shown in Figure 14, as investment accounts under a Sovereign Money system would most likely have a more attractive interest rate than time deposits in the current system.

<sup>15</sup> Due to limited data collection, we were able to show net changes in business lending by business size only from 2011. However, total net bank lending to the whole business sector is still portrayed from 2009, and sufficiently demonstrates that businesses have been more concerned with paying down debt than taking out new loans.

<sup>16</sup> For a more in-depth explanation of this process, see Stigum (2007).

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