



CREATING A SOVEREIGN MONETARY SYSTEM



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INTRODUCTION

This document presents a reform to the banking system that would remove the ability of banks to create money, in the form of bank deposits, when they make loans. It would transfer the ability to create new money exclusively to the state, creating what we have termed a ‘sovereign money’ system. The proposal has its origins in a proposal first put forward by Frederick Soddy in the 1920s, and then later by Irving Fisher and Henry Simons in the aftermath of the Great Depression. Variations of these ideas have since been proposed by Milton Friedman (1960), James Tobin (1987), John Kay (2009) and Laurence Kotlikoff (2010). Most recently, economists at the International Monetary Fund modelled Irving Fisher’s original proposal and found both “strong support” for all of its claimed benefits and extra positive effects (Benes & Kumhof, 2012).

While inspired by Irving Fisher’s original work and variants on it, the proposals in this paper have some significant differences. The starting point was the work of Joseph Huber and James Robertson in their book *Creating New Money* (2000). That proposal updated Fisher’s proposals to recognise that money, the payments system and banking in general is now electronic, rather than paper-based. The reform presented here further develops Huber and Robertson’s proposal, building on a 2010 submission to the UK’s Independent Commission on Banking made by Ben Dyson (Positive Money), Josh Ryan-Collins and Tony Greenham (new economics foundation), and Richard Werner (University of Southampton). The proposals are outlined in greater detail by Andrew Jackson and Ben Dyson in the book *Modernising Money* (2013).

The structure of the paper is as follows:

- Part 1 summarises the proposal at a high level.
- Part 2 highlights a number of problems caused or exacerbated by the way in which money is currently created by banks. It explains how a switch to a Sovereign Money system addresses each of them.
- Part 3 explains the details of the reforms as they relate to the structure and operations of banks, and the services they provide to customers.
- Part 4 covers the reforms to the process of money creation and management of monetary policy.
- Part 5 explains how a transition can be made between the existing system and a fully Sovereign Money system.
- Part 6 deals with common objections, criticisms or misconceptions

Large parts of this paper are condensed from *Modernising Money (2013)*, by Andrew Jackson and Ben Dyson. Certain content has been added after publication of the book.

PART 1: EXECUTIVE SUMMARY

More than 97% of the money used by people and businesses in the UK is created by commercial, or 'high-street', banks. Less than 3% is created by the state or central banks (such as the Bank of England). A similar situation exists in most countries around the world.

Banks create new money, in the form of the numbers (deposits) that appear in bank accounts, through the accounting process used when they make loans. In the words of the Bank of England:

“When a bank makes a loan, for example to someone taking out a mortgage to buy a house, it does not typically do so by giving them thousands of pounds worth of banknotes. Instead, it credits their bank account with a bank deposit of the size of the mortgage. **At that moment, new money is created.**” (Bank of England Quarterly Bulletin, 2014 Q1)

Conversely, when people use those deposits to repay loans, the process is reversed and money effectively disappears from the economy. As the Bank of England describes:

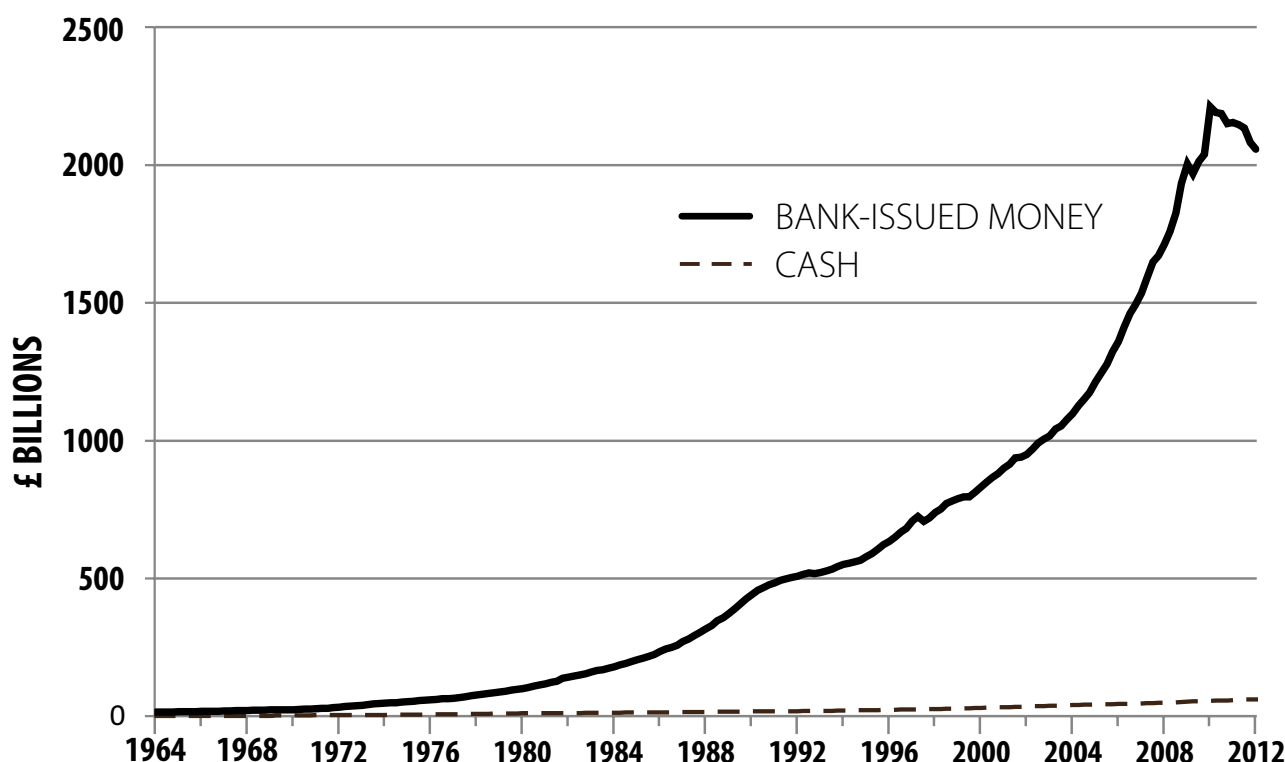
“Just as taking out a loan creates new money, **the repayment of bank loans destroys money.** ... Banks making loans and consumers repaying them are the most significant ways in which bank deposits are created and destroyed in the modern economy.” (Bank of England Quarterly Bulletin, 2014 Q1)

The Bank of England maintains that it has ultimate control over the process of money creation, through the use of interest rates and other regulations. However, a quick glance at the growth of bank-issued money over the last 40 years (shown opposite) calls this claim into question¹.

This power to create money, in the hands of commercial banks, has been highlighted as one of the root causes of both the Great Depression of the 1930s and the financial crisis of 2007-2009. Lord (Adair) Turner, the former chairman of the UK's Financial Services Authority, has argued that: “The financial crisis of 2007/08 occurred because we failed to constrain the private financial system's creation of private credit and money” (2012).

This paper outlines a proposal to remove the ability of banks to create money, and return this power to public body working in the interests of the economy and society as a whole. Such proposals have been referred to as ‘100% money’ or ‘full reserve banking’, although there are some subtle technical differences between those proposals and the one in this paper. We refer to this specific reform as a ‘sovereign money system’, describing a system in which all money is created by the state.

¹ This chart is slightly misleading, in that it appears to show that broad money continued to increase until late 2009, whereas in reality it actually started to shrink in late 2008. The appearance of an increase between 2008 and 2009 is mainly due to changes in the way that statistics are reported by the Bank of England.

Chart: Money creation by the banking system (M4 vs Notes & Coin in circulation)

We argue that there are very significant advantages to such a reform, and that a switch to a sovereign money system addresses a large number of problems that would be difficult to address through individual policies.

THE PROPOSAL IN BRIEF

The following is a brief overview of the proposals.

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 or European Central Bank). 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 until they need to be spent.
2. The lending/saving function: acting as an intermediary (middleman) between savers and borrowers.

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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 are entirely risk-free, as they cannot be invested or placed at risk by the bank. The bank would provide the payment systems (such as cheque books, debit cards, internet banking, and ATMs) that allow the customer 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 make savings or investments in order to earn interest would transfer funds from their Transaction Account into an Investment Pool owned by the bank. The bank would set up an Investment Account for the customer, which is 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.

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 support non-inflationary growth. 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 acts as a limiter to stop the creation of money becoming excessive, but subject to that, the central bank is able to create additional money.

Any new money the central bank created would be transferred to government and injected into the economy through 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 allows 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 are 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-orientated peer-to-peer lenders or regional or publicly owned business banks. This ensures that a floor can 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 transparent to both parliament and the general public.

TRANSITION

There are two broad choices for the transition process – either a phased-in approach, or an immediate switch. Our proposals ensure that either approach can be implemented without disruption to the wider economy.

In the first, phased-in approach, the central bank would start to create money directly, transferring this money to the government for spending into the economy, as described above. However, banks would still be permitted to operate as they currently do, creating money in the process of making loans. Over time, the amount of money that banks could create would be progressively restricted. A larger proportion of new money needed to replace the money cancelled out by loan repayments, and any necessary expansion of the money stock², would come from money creation by the central bank. Whilst this hybrid arrangement is in place, this would constitute a **partial Sovereign Money system**. Eventually a conversion date would be

² The total quantity of money in an economy is usually referred to as the ‘money supply’. However, throughout this paper we have used the term ‘money stock’, since it is in fact a static stock of money rather than a flow or ‘supply’ of money.

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agreed at which banks would be required to switch over to the structure of banking described above, and would therefore lose their ability to create money.

A more rapid approach is to transfer the power to create money from banks to the central bank overnight, switching immediately to a **full Sovereign Money system**. This can be done without changing the level of money stock in the wider economy, and without causing a damaging contraction in the amount of credit available. In this overnight process, the bank-issued demand deposits that make up 97% of the money stock would be converted into state-issued sovereign money held in accounts at the central bank. Instead of having a liability to their customers, each bank would now have an equivalent liability to the central bank (so that there is no overall impact on the size or nature of their balance sheet, and no windfall profit for the banking sector). The state-issued sovereign money would be recorded as an accounting liability of the central bank, balanced on the balance sheet by non-interest-bearing zero-coupon bonds.

These two transition processes are explained in greater detail in Part 5. Further detail on the phased-in approach, in which both the central bank and commercial banks are simultaneously able to create money, is given in *Sovereign Money: Paving the way for a sustainable recovery* by Andrew Jackson (2013).

PART 2: ADVANTAGES OF SWITCHING TO A SOVEREIGN MONEY SYSTEM

ECONOMIC BENEFITS

1. CREATING A BETTER AND SAFER BANKING SYSTEM

Problem: In the current system, 97% of money consists of bank deposits. These deposits are liabilities of commercial banks, which means that they depend on the health of the bank's balance sheet. In the event of a bank failure (due to, for example, bad investment decisions), these deposits would become 'frozen' and unable to be spent. In the case of the failure of Royal Bank of Scotland, if the bank had not been rescued by taxpayers, millions of customers would have been unable to make payments. This would have had a devastating effect on the real economy, as well as causing panic that could have resulted in a wave of bank failures. In an extreme case this could have resulted in a reversion to a cash-only economy. So the health of our payments system, which underpins the real economy, depends on banks not taking excessive risks, even though risk taking is inherent to banking. Ultimately, it depends on the readiness of the government to intervene when banks fail.

To prevent banks failing and threatening the payments system and real economy, governments resort to high levels of regulation and supervision. However, the complexity of this regulation (such as the 400+ page Basel III or the 8,000+ page Dodd-Franks bill) means that it is certain to be full of loopholes and therefore largely ineffective.

In addition, to prevent runs on banks (which could bring down banks and the payments system), government provides deposit insurance – an £85,000 guarantee on the balance of each individual's account. But this amounts to the state underwriting the liabilities of private banking corporations. It means that the liabilities of banks are also the contingent liabilities of the state. When a bank fails, the government is faced with liquidating the bank and becoming liable to reimburse all depositors, or injecting capital to restore the bank's balance sheet (a bail out). It will almost always be cheaper and quicker to bail out the bank than to liquidate it, meaning that no bank beyond a certain size will be allowed to fail. Thus deposit insurance, rather than making the system safer, actually protects banks from the consequences of their own actions, encourages greater risk taking, and therefore makes the system riskier.

Sovereign money as a solution: In a sovereign money system, the payments system (made up mainly of Transaction Accounts) would be technologically and financially separated from the risky investing and lending of banks. The money that is used by the real economy to make

payments would exist at the central bank, rather than being liabilities of a commercial bank. This means that even if a commercial bank were to fail due to bad investments, the payment accounts that it administered could easily be transferred to a functioning bank with no loss to the taxpayer or account holders.

This knowledge that banks could be allowed to fail without affecting the payments system means that moral hazard would be reduced. Banks would have an incentive to take lower levels of risk (because there would be no option of a bailout or rescue from the taxpayer). The fact that bank failure would not pose such a threat to the real economy means there would be less need to use complex regulation to protect banks from themselves. Simpler regulation is likely to be more effective in safeguarding economic stability. (Of course the regulator still needs to ensure that there is no fraud or mis-selling of financial products).

2. INCREASING ECONOMIC STABILITY

Problem: Money creation by banks tends to be pro-cyclical. When the economy is improving, banks become more willing to lend. This creates further demand (or house price inflation) which leads to greater confidence about the future health of the economy, and an even greater willingness to lend. But ultimately the ever-higher levels of private debt result in a financial crisis. Post-crisis, banks are unwilling to lend (because they are not sure whether borrowers will be able to repay), and the real economy suffers through a shortage of credit and spending.

In a post-crisis environment, there is a real risk of a 'debt deflation' scenario outlined by Irving Fisher, or the 'balance sheet' recession outlined by Richard Koo. The higher the levels of private debt following a crisis, the harder it is to recover from the recession.

Sovereign money as a solution: Money creation by the central bank would be counter-cyclical. In times when the economy is booming, rates of money creation would be reduced, to avoid fuelling inflation. But when the economy is in recession, rates of money creation will be increased to prevent prices from falling, leading to additional spending and boosting the economy. This is likely to lead to a much more stable economy.

In times of recession, households and businesses will be withdrawing demand from the economy by attempting to pay down their own debts. The creation of money by a central bank can offset this shrinking demand.

3. REDUCING THE DEPENDENCE ON DEBT

Problem: In the current system new money is created by banks as they make loans. This means that in order to get more new money into the economy (to accommodate economic growth), it is necessary for a household or business to go further into debt. The last few decades suggest that we need the level of bank lending, and therefore the money stock and private debt, to grow faster than GDP in order to produce positive growth in GDP (see for example, Turner, 2014). But other research has shown that rising levels of bank credit (and

therefore private debt) tend to lead to financial crisis (see for example Shularick and Taylor, 2009). We therefore have a catch-22 situation:

- To grow our economy, we must encourage further bank lending and further private debt
- But this inevitably leads to financial crisis.

In addition, loan repayments lead to the destruction of money and a fall in the money stock (because they are the reverse process of loan issuance). It is therefore impossible to significantly reduce the level of private debt without simultaneously contracting the money stock, withdrawing spending power from the economy, and potentially causing a recession.

Sovereign money as a solution: In a sovereign money system, the central bank is able to create money that is transferred to the government to be spent into the real economy. No household or business has to borrow in order for this process to take place. This means that the central bank can provide additional spending and demand without relying on households or businesses going further into debt. Consequently, it becomes possible to have economic growth without simultaneously increasing the level of private debt and the risk of a financial crisis.

In addition, the changes made in the transition to a sovereign money system (see part 5) make it possible for debt repayments to be gradually recycled back into the economy in a way that could lead to a significant reduction in private debt levels.

4. SUPPORTING THE REAL ECONOMY

Problem: Because most of our money is created as a result of bank lending, the lending preferences of banks determine where new money starts its life in the economy. In practice, this has resulted in the bulk of money going into property markets and to the financial sector. According to Bank of England figures, between 1997-2007, of the additional money created by bank lending, 31% went towards mortgage lending, 20% towards commercial property, 32% to the financial sector (including mergers and acquisitions, trading and financial markets). Just 8% went to businesses outside the financial sector, whilst a further 8% financed credit cards and personal loans. Yet it is only ultimately the last two - lending to businesses and consumer credit – that have a real impact on GDP and economic growth. In short, we have a system where very little of the money created by banks is used in a way that leads to economic growth or value creation. Instead, the majority of the money created has the effect of inflating property prices and therefore pushing up the cost of living.

Sovereign money as a solution: In a sovereign money system, new money is created by the central bank and then spent into the real economy through government spending. Depending on how the money is spent, this will have a much higher impact on GDP and economic activity than the money created by banks. This is primarily because a) it will all be spent directly on activities that contribute to GDP, whereas most bank lending is not, and b) it does not come with the cost of servicing additional private debt, which could act as a brake on spending. This means that the real economy is better supported in a sovereign money system.

5. MORE EFFECTIVE MONETARY POLICY

The Problem: In the current monetary system, the central bank must use interest rates in an attempt to influence the lending behaviour of banks and the demand for borrowing from businesses and the public. Lower interest rates are supposed to encourage more borrowing (and so more money creation), and higher rates are supposed to discourage borrowing (so slowing down the rate of money creation). However, this is a blunt and ineffective tool. When money creation fuels house price rises in excess of 10% a year, a small change in interest rates is not going to significantly discourage borrowers, and so will not restrain money creation. In the opposite scenario, when private debt is at historically high levels, dropping interest rates to 0.5% will still not encourage people to borrow more, and so will not lead to more money creation.

In addition, the use of interest rates has negative side effects across the wider economy. Those who borrowed responsibly at a certain interest rate can find themselves in financial difficulty when interest rates are raised particularly high in an attempt to dissuade new borrowers. Particularly low interest rates can cause serious complications for the management of pension funds and the savings income of pensioners.

Sovereign money as a solution: In a sovereign money system the central bank has direct control over money creation, so there is no need to exert indirect influence through the setting of interest rates. Interest rates are therefore likely to be more stable than under the current system, and are less likely to reach the extremes seen in recent years. Neither savers nor borrowers have their income arbitrarily increased or reduced as a result of the decisions of the central bank. The direct creation of money, for spending into the real economy, has a direct benefit on those who receive the money but no negative costs on the rest of society (unless excessive money is created and fuels inflation). The direct creation of money is a more targeted tool that will be more effective than the use of interest rates.

6. BETTER GOVERNMENT FINANCES

The Problem: When the central bank or government issue physical cash (banknotes or coins), the proceeds from creating that money are added to the government budget. However, this only applies to the 3% of money that exists in physical form. The remaining 97%, being electronic bank deposits issued by the banks, generate no seigniorage for the government. In practice, the seigniorage from creating bank deposits goes to the banking sector, and acts as a hidden subsidy, whilst being a significant loss of potential revenue for the government.

In addition, the instability caused by credit bubbles is a significant factor in soaring levels of public (national) debt. The UK national debt has more than doubled since the start of the financial crisis, predominantly due to the fall in tax receipts and the rise in unemployment benefits that followed the crisis. The costs of crises caused by money creation by banks are passed back onto the taxpayer.

Sovereign money as a solution: Because all money – physical and electronic – would be issued by the central bank in a Sovereign Money system, the proceeds on creating electronic money would go to the Treasury. This could be a significant addition to government budgets.

In addition, the greater economic stability of a sovereign money system means that there is much lower risk of recessions leading to high deficits, and therefore the national debt would be lower and more stable.

SOCIAL & ENVIRONMENTAL BENEFITS

7. TACKLING UNAFFORDABLE HOUSING

Problem: Around a third of the money created by banks goes towards mortgage lending (and a further significant proportion goes towards commercial property). This creation of money to buy pre-existing assets (i.e. houses in limited supply, and the underlying land which is in fixed supply) leads to prices rising. Rising house prices make banks even more confident about lending further amounts for mortgages (since rising prices mean that they are unlikely to lose money even in the event of a default and repossession). This becomes a highly pro-cyclical process, leading to house price bubbles.

Sovereign money as a solution: There is a need for a number of policy and tax reforms to address the problem of unaffordable housing (particularly in the UK). However, removing the ability of banks to create money will remove much of the fuel for house price inflation. House prices that rise at a lower rate than growth in wages will mean that housing becomes more affordable over time.

8. SLOWING THE RISE IN INEQUALITY

Problem: House price bubbles have the effect of transferring wealth from the young to the old, and from those who can get on the property 'ladder' and those who cannot. This is a significant channel through which wealth inequality is further increased.

Furthermore, the fact that the nation's money supply must be borrowed from banks means that we are having to pay interest on the entire money supply. Household income data surveys show that this has the effect of transferring income from the bottom 90% of the population to the top 10%. (See Chapter 5 of *Modernising Money* for further details).

Sovereign money as a solution: As discussed above, removing the ability of banks to create money should have a dampening effect on house price rises, which in turn will reduce the rate of growth in wealth inequality.

The creation, by the central bank, of money that has no corresponding interest-bearing debt, means that there is a stock of money that is effectively 'debt free', and no need for members of the public to borrow simply to ensure that there is money available in the economy. The resulting

lower levels of private debt will mean that less interest is paid overall, and therefore less income is transferred to the top 10% of the population. Again, this will slow the rate of growth in inequality.

9. ENHANCING DEMOCRACY

Problem: When banks decide how quickly they want to grow and what areas of the economy they want to invest in, they effectively also decide how quickly the money stock will grow and how newly created money will be spent. This control rests ultimately with those who set each bank's strategy i.e. the board directors and senior leadership. Consequently a very small number of people (around 80 board members across the 5 largest UK banks) make decisions that shape the entire UK economy, even though these individuals have no obligation or mandate to consider the needs of society or the economy as a whole, and are not accountable in any way to the public. This appears to be a major democratic deficit.

In addition, because banks are currently the only source of new money into the economy, this puts government into a position of dependency on the banks. Any attempt to impose regulations or reforms to the banking system are met with the threat from the banks that this will limit their ability to provide credit and therefore harm the economy recovery.

Sovereign money as a solution: By removing the power to create money from the banks, and returning it to the state, democratic control is restored over money creation. The Money Creation Committee, which makes decisions on how much money to create, would be highly transparent and accountable to parliament. The decision on how to spend the money created will be taken by government (just as they take decisions on how to spend all tax revenue).

In addition, because the central bank can directly supply additional money to the economy, we are no longer dependent on bank lending to fuel economic growth. This significantly reduces the political power of the banking sector.

PART 3: REFORMS TO THE BANKING SYSTEM

OVERVIEW

The following changes to the structure and operations of banks make it impossible for banks to create new bank deposits that can be used to make payments, and therefore prevents them from creating money in the process of lending. The reforms also split apart two functions of modern banks:

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

After the reform banks would provide two distinct types of account to businesses and members of the public: Transaction Accounts and Investment Accounts. An overview of these two accounts is given now, and further detail below.

The payments services would be based on **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, originally created by the central bank. These transaction funds would be electronically stored at the central bank and would legally belong to the customer. The funds are entirely risk-free, as they cannot be invested or placed at risk by the bank. The bank would simply administer the funds by providing the payment systems (such as cheque books, debit cards, internet banking, and ATMs) that allow the customer to make payments using the sovereign money that they own. The accounts would be interest-free, and banks would be free to charge account fees for providing these services.

Payment settlement would be by direct transfer between the Transaction Accounts of those making and receiving the payments. There would be no involvement of intermediate settlement assets such as bank reserves, as happens in the current system. Existing payments processing systems could continue to be used, with some minor adaptations.

The intermediary function of banks would take place through **Investment Accounts**. A customer wishing to make savings or investments in order to earn interest would transfer funds from their Transaction Account into an Investment Pool owned by the bank. The bank would set up an Investment Account for the customer, which is 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.

In between the investments made by Investment Account holders and the loans made by the bank, a banks would perform a function of pooling investments and distributing risk across a wider range of investors. 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. Regulators might impose equity requirements and other prudential rules against such accounts to prevent reckless behaviour by banks.

From the perspective of a bank customer, Transaction Accounts broadly correspond to present-day current/checking accounts, where money can be withdrawn or spent on demand. Investment Accounts broadly correspond to savings accounts that have fixed terms or minimum notice periods. However, as explained later, there are fundamental differences. Crucially, these changes mean that banks would no longer be able to create the type of (demand) deposits that can be used to make payments and therefore could no longer increase the total money stock as a result of their lending activities.

TRANSACTION ACCOUNTS

Present-day current accounts would be replaced by Transaction Accounts. Transaction Accounts would still:

- Provide cheques and ATM or debit cards.
- Provide electronic payment services, including for salaries and other payments.
- Provide instant access, for both electronic money transfers and cash withdrawals.
- Provide overdrafts, at the bank's discretion³.

However, unlike present-day current accounts, where the safety of the deposits in a current account depends on the health of the bank's balance sheet, Transaction Accounts would be entirely risk-free and secure. This would be because, while a Transaction Account holder may appear to be banking with a private commercial bank, the Transaction Account would no longer be a liability of the bank, dependent on the condition of the bank's assets. Instead, it would actually represent electronic money, issued by and held at the central bank. Funds transferred to a Transaction Account would remain the legal property of the account holder, rather than becoming the legal property of the bank as happens in the current system. The customer would in a sense be hiring the bank to act as a middleman, whose role would be to relay instructions

³ Overdrafts provided with Transaction Accounts would not allow the banks to create additional money. When a customer with an approved overdraft draws down the overdraft, they would actually be taking an ad-hoc loan from pre-existing sovereign money balances held by the bank. However, from the customer's point of view the experience of using their overdraft will appear to be no different to using an overdraft in the current system.

and information between the customer and the central bank. The bank would never actually take legal or practical possession of the money, and would not be allowed to instruct the central bank to transfer it without the customer's express permission.

As a result, a bank would not be able to use the money in Transaction Accounts for making loans or funding its own investments. Because Transaction Accounts would not be held on any commercial bank's balance sheet but would actually be held in full at the central bank, their management could be transferred to other banks at any time, by any number of customers, without having any impact on any commercial bank's overall financial health or liquidity (and regardless of any bank's solvency). In effect, this would make Transaction Accounts 100% risk-free, electronic 'safe deposit boxes' for money. This would be in stark contrast to the present system where the money in checking accounts is legally the property of the bank, not the customer, with the customer being dependent on the continuing solvency of the bank.

No need for deposit insurance: With the money in Transaction Accounts safe by design, there would no longer be a need for a deposit insurance or guarantee scheme – any amount of money could be held in a Transaction Account with zero risk of loss and no exposure to the financial health of the commercial bank.

Account Fees for Transaction Accounts: Funds in Transaction Accounts would not be available to the bank to lend or invest, and therefore the bank would be unable to earn a return on these funds. However, banks would still incur the costs of administering these accounts and providing services associated with them. With the cost to the bank of running a UK current account currently standing at around £5 per month, commercial banks would need to charge fees for these accounts to cover their costs and make a profit. In practice, there will be significant market pressure to keep account fees as low as possible.

INVESTMENT ACCOUNTS

After the reform, a bank would need to attract the funds that it wanted to use for any investment purpose (whether for loans, credit cards, mortgages, long term investing in stocks or short-term trading). These funds would be provided by customers, via their Investment Accounts. Investment Accounts would replace present-day savings accounts, including instant-access savings accounts and fixed-term investments through a bank. The term "Investment Account" has been chosen over 'savings account' as it more accurately describes the purpose of these accounts: they would be risk-bearing investments rather than a 'safe' place to 'save' money.

Investment Accounts, like present-day savings accounts, would still:

- Be used by customers who wish to earn interest on their spare money (savings)
- Pay varying rates of interest

- Be provided by normal high-street banks
- Be liabilities (specifically, a promise to repay money in the future) of the bank to the customer who made the investment

However, Investment Accounts would have some significant differences from present-day savings accounts:

An Investment Account would not hold money: An Investment Account would never actually hold any state-issued sovereign money. Any money ‘placed in’ an Investment Account by a customer would actually be immediately transferred from the customer’s Transaction Account (which represents electronic money held at the central bank) to the commercial bank’s ‘Investment Pool’ account (also held at the central bank and discussed in more detail below). At this point, the money would belong to the bank, rather than the Investment Account holder, and the bank would record the Investment Account as a liability to the customer (representing a promise to repay the money at some point in the future), and the addition to the Investment Pool account as its asset. When the money invested was then lent to a borrower, it would be transferred from the commercial bank’s Investment Pool (held at the central bank) to the borrower’s Transaction Account (also held at the central bank).

An Investment Account would not be money: Investment accounts would be liabilities of the commercial banks but would not be transferable except by withdrawal of sovereign money from the Investment Fund into the account holder’s Transaction Account. Only Transaction Accounts would be linked to the payments process. Furthermore, a bank would not be permitted to credit a customer’s Investment Account except on receipt of a balancing transfer of sovereign money into its Investment Fund from a Transaction Account, the Central Government Account or its own Operational Account. These restrictions ensure that Investment Account balances cannot be created “out of thin air” and cannot be used as money substitutes.

Investment Accounts would be illiquid: At the point of investment, customers would lose access to their money for a pre-agreed period of time. Customers would agree to either a ‘maturity date’ or a ‘notice period’ that would apply to the account. There would no longer be any form of ‘instant access’ savings accounts. This prohibition on instant access savings would be necessary in order to prevent banks from creating demand liabilities that could be used to make payments and thereby replicating the ability to create money that they have in the present system.

Investment Accounts would not be protected by government guarantee: The Financial Services Compensation Scheme (a form of deposit insurance which guarantees £85k of an individual’s account) would not apply to Investment Accounts (or Transaction Accounts, although Transaction Accounts would be entirely risk-free by their nature). Customers who wished to keep their money completely free of risk could put their money into Transaction Accounts, while customers who wanted to earn a return would be expected to take some risk, rather than having the risk passed onto the taxpayer.

Investment Accounts would be risk-bearing: If some borrowers failed to repay their loans, then the loss would be split between the bank and the holders of the Investment Accounts, according to the terms and conditions of the specific account. This sharing of risk would ensure that both the bank and the investor's incentives were aligned correctly. Any investor opening an Investment Account would be made fully aware of the risks at the time of the investment, and those who did not wish to take a certain level of risk would be able to opt for alternative accounts that offered lower risks and consequently lower returns. Risk and reward would therefore be aligned, and much of the moral hazard associated with the current banking system would be removed.

If a commercial bank suffered such a large number of defaults (borrowers who were unable to repay their loans) that it became insolvent and failed, the bank would be closed, the remaining assets liquidated and the creditors paid off. Investment Account holders would have depositor preference (i.e. they would have priority in the queue of creditors waiting to be repaid) over bondholders and shareholders. Amongst all Investment Account holders, those who opted for the lowest risk accounts would be repaid before those who opted for the higher risk accounts.

Investment Accounts would have a specific purpose: At the point of opening an account, the bank would be required to inform the customer of the intended uses for the money to be invested. Typically the broad category of investment would correspond to the level of risk taken. The broad categories of investment would need to be set by the financial authorities.

This change is designed to ensure that the types of investment made by the bank (with customers' money) more closely represent the types of investments that the customers themselves would want. These categories could be at the industry or sectoral level, so Investment Account holders may have the choice of investing in property, businesses, or financial markets, for example, but would not need to pick the particular companies in which they wanted to invest.

ACCOUNTS AVAILABLE TO COMMERCIAL BANKS AT THE CENTRAL BANK

Under the present-day system, commercial banks have accounts at the central bank in which they keep 'central bank reserves' for the purpose of settling payments with other banks and with the government. In a full Sovereign Money system, each bank would instead manage three distinct accounts at the central bank. These accounts would hold electronic money that had been created exclusively by the central bank. The accounts would be:

The Operational Account: This would be an account where the bank would hold funds for its own purposes: retained revenue, proceeds of capital raised from shareholders, money to pay staff wages, etc. In short, it would be a bank's 'own money' acquired through the running of the bank. The money in this account would be owned by the bank and the account would be recorded as an asset of the bank.

The Investment Pool: This would be the account that a bank would use to receive funds from customers, make loans to borrowers, receive loan repayments from borrowers and make payments (of interest and principal) back to Investment Account holders. In short, this account would represent the lending side of the bank's activities. The money in this account would be owned by the bank and the account would be recorded as an asset of the bank.

The Customer Funds Account: This would be a central bank account, administered by the commercial bank, in which the bank's customers' Transaction Account funds would be held. When someone at another bank made a payment to a Transaction Account holder, the balance of the receiving bank's Customer Funds Account would increase. When a Transaction Account holder made a payment to someone who used a different bank, the balance of this account would decrease. The money in this account would not be owned by the bank nor would the account be an asset of the bank. The bank would merely administer this aggregated account on behalf of its customers and their individual Transaction Accounts.

ONLY ONE TYPE OF ELECTRONIC MONEY

In the current system there are effectively two types of electronic money. The first, bank deposits, are liabilities of commercial banks, and are used to make payments between members of the public, and businesses. The second, 'central bank reserves', are only used by commercial banks to make payments to each other (or payments by banks to the government). These central bank reserves are held in reserve accounts at the central bank. Because individuals or non-banking businesses cannot get accounts at the central bank, members of the public and businesses are unable to use central bank reserves. This 'dual circulation of money' is an important feature of the current system.

In a full Sovereign Money system there is only one integrated quantity of money circulating among banks and non-banks alike. In effect, the public is able to use central bank reserves as well, rather than these being restricted to commercial banks.

THE CUSTOMER FUNDS ACCOUNT AND ITS RELATIONSHIP TO THE BALANCE SHEET

The money placed into Transaction Accounts through a specific bank would actually be held, in electronic form, at the central bank in the aggregated Customer Funds Account administered by the bank. However, the central bank would not need to hold any information on individual customers or the balance of individual customer accounts – managing this information would be the responsibility of the individual banks.

The aggregate balance of all the Transaction Accounts administered by a particular bank would make up the Customer Funds Account, which would be held at the central bank. However,

while the commercial bank would administer payments into and out of this account on behalf of its customers, it would not own this account or any of the money within it.

Each bank would record the amount of this money owned by each and every one of its individual Transaction Account holders and the transactions made in and out of each customer's account. A simple example of a bank's internal database may be something like this:

MegaBank's Transaction Accounts	
Customer	Balance
Mrs K Smith	£546.21
Mr W Riley	£1942.52
Mr J Heath	£26.78
...	...
Total Balance of Customer Funds Account at Bank of England:	
	£168,023,163,295.72

Because the Customer Funds Accounts would not be the property of the commercial bank they would not appear on its balance sheet. Instead they would be the property of the individual Transaction Account owners and as such would be recorded on a separate register.

Other changes include the addition of the Operational Account and Investment Pool at the central bank, replacing the former entry of 'Deposits at the Bank of England' (i.e. central bank reserves). Investment Accounts (representing investments made by customers) would be recorded as a liability of the bank to a customer, just as present-day time deposits are. For example:

MegaBank's Balance Sheet		MegaBank's Administered Customer Funds Accounts
Assets	Liabilities	Transaction Accounts
Loans outstanding	Investment Accounts	
Cash	Interbank borrowing	
Operational Account	Shareholder equity	
Investment Pool		
Property & fixed assets		

Meanwhile, the central bank's own database would appear as below, recording the aggregate balance of the Customer Funds Accounts, Investment Pools and Operational Accounts, but no details of any individual's accounts:

Bank of England	
Bank	Customer Funds Account Balance
MegaBank Administered Customer Funds Account	£168,023,163,295.72
MegaBank Investment Pool	£145,023.00
MegaBank Operational Account	£295,451.72
NewBank Administered Customer Funds Account	£156,023,123,714.52
...	...
Total Balance of all accounts	£868,023,163,295.72

PAYMENTS, LOANS AND MATURITY TRANSFORMATION

Payments: Payments between accounts held at different banks would be made in much the same way that interbank payments are made today. Money would move between the Customer Funds Account of the payer bank to the Customer Funds Account of the payee bank, and the individual banks would update their records of Transaction Account balances as appropriate. The clearing process would be essentially unaltered. The banks would need to confirm the existence of the accounts involved and the availability of funds before clearing the payment.

Loans: Making an investment through an Investment Account requires the customer to transfer ownership of their money to their bank. This will involve a decrease in the balance of their Transaction Account, which the bank will acknowledge receipt of through an increase in the balance of their Investment Account (a liability from the bank to the customer). Behind the scenes, money will have moved from the Customer Funds Account administered by the bank to the bank's Investment Pool at the central bank. This money is then lent when the bank transfers the money from their Investment Pool into the Customer Funds Account, with the borrowing customer's Transaction Account being marked up accordingly. This sequence of transactions can all be handled by the existing payments systems at the central bank (with minor adaptations).

Unlike in the current system, this would not increase the quantity of money in circulation; the act of making loans would merely transfer pre-existing money from one Transaction Account to another Transaction Account (via a bank's Investment Pool). While the aggregate balance of Investment Accounts would have increased, these would be illiquid and non-transferable and so cannot be considered money.

Maturity transformation & size transformation: in this system maturity transformation – the funding of long-term loans with short-term investments – would still be possible. As a simplified example, a 10-year loan of £2,000 could be funded by 10 individuals each placing £2000 into an Investment Account for a year at a time, in sequence.

In addition, loans would not need to be funded by an Investment Account deposit of the same size. Several smaller Investment Account deposits could be used to fund a large loan, or conversely a large Investment Account deposit could be used to fund several smaller loans.

PART 4: REFORMS TO MONEY CREATION AND MONETARY POLICY

This section covers the process of money creation in a full Sovereign Money system, and explains how monetary policy would be managed by the central bank.

The major change for the central bank would be that, with commercial banks no longer able to create money (due to changes detailed in Part 3), the central bank would become the sole creator of money in the economy. It would create money in order to promote non-inflationary growth (or to meet the target specified by parliament). Money created by the central bank would be the only type of money circulating in the economy, used by banks and non-banks alike. In the main this new money would be granted to government to be spent into circulation.

CREATING NEW MONEY

After a switch to a full Sovereign Money system, banks would no longer be able to create money – in the form of bank deposits – when they made loans or bought financial assets. As a result, an alternative method for injecting money into the economy would be required. However, before we address the question of how new money is to be created, we first must address the questions:

1. Who should have the authority to create money?
2. Who should decide how that money is to be used?

WHO SHOULD HAVE THE AUTHORITY TO CREATE MONEY?

The overriding principle when we are deciding who should have the authority to create money is whether or not the ‘creator’ can benefit personally from creating money. If the answer is yes, then we have a conflict of interest.

In short, neither profit-seeking bankers nor vote-seeking politicians can be trusted with the power to create money, as the incentives both groups face will lead them to abuse this power for personal, party, or company gain. Instead, we must ensure that the creators of money do not benefit from creating it. This requires the separation of the decision on a) how much new money is to be created from b) how that newly created money is to be used.

The two decisions should therefore be given to completely separate bodies. Elected government would make the decision on how to spend newly created money (in the same way that it decides how to spend all tax revenue). However, they would have no power to influence how much new money was created (in contrast to their power to decide how much tax to collect).

The decision over how much money to create must be given to a body that is independent from government, so that short-term political pressures do not override the need to consider the long-term health of the economy. However, the body must also be accountable to a cross-party group of Members of Parliament, to ensure that there is scrutiny and accountability over their decisions.

There are options for how this independent body could be structured. The least radical option is to give the authority for money creation to the Bank of England's existing Monetary Policy Committee (the committee that sets interest rates and already makes decisions on Quantitative Easing). There is an important debate about whether such a committee should represent a wider cross-section of society, but that is outside the scope of this paper.

From this point forward, we'll use the term "Money Creation Committee" to refer to whichever body is charged with the authority to create money.

DECIDING HOW MUCH MONEY TO CREATE: THE MONETARY CREATION COMMITTEE (MCC)

The decision over how much new money to create would be given to an independent body, to be known as the Monetary Creation Committee (MCC). The MCC must be politically independent and politically neutral, just as the Monetary Policy Committee at the Bank of England (responsible for setting interest rates) is today.

In line with democratic principles Parliament, through the government, should determine the target and remit of monetary policy. For example, in the UK the Bank of England is required by statute to maintain price stability and, subject to that, to support the economic policy of Her Majesty's Government, including its objectives for growth and employment. At least once a year the government provides the Bank with a remit setting out what price stability shall consist of and what the Government's economic policy objectives shall be. Price stability is currently defined by an inflation target of 2%. The inflation target acts as a limiter to stop the creation of money becoming excessive, but subject to that, the central bank is able to create additional money.

Assuming for the sake of simplicity that the central bank has an inflation target, in deciding the amount of money that would be added or removed from circulation, the MCC would broadly aim to change the growth rate of the money stock in order to keep inflation at the target level (e.g. 2% a year). If inflation was above the target rate, and the MCC believed that this was due to monetary reasons (rather than being due to other economic factors), then the MCC would slow or stop the creation of new money. Note that the MCC's decision would be based on the amount of additional money it considered necessary to meet the inflation target, looking at the economy as a whole. The MCC must understand the government's economic policy objectives in order to assess the impact on its inflation target of any money it creates. However, the

MCC's decision to create money would take no account of the government's financing needs in meeting those objectives.

The Monetary Creation Committee would have no control over how the newly created money granted to government would be used. Whilst the way the money is used would determine to some degree its effect on inflation, giving the MCC any influence over how the money is spent would introduce a conflict of interest, whereby its members might find that their judgement was swayed by their opinion on the government's policies and projects.

HOW THE MONETARY CREATION COMMITTEE WOULD WORK

Each month, the Monetary Creation Committee would meet and decide whether to increase, decrease, or hold constant the level of money in the economy. During their monthly meetings the MCC would decide upon two figures:

1. The amount of new money needed in order to hit their democratically mandated target. If this target were a simple inflation target, as in the example above, this would mean creating money in order to maintain aggregate demand at the level consistent with the targeted rate of inflation (similar to the setting of interest rates today).
2. The amount of new money that would be sufficient to relieve any bottlenecks in the availability of credit to the real (non-financial) economy, if such a shortage might otherwise threaten output and employment.

Both figures would be determined, as is the case now when setting interest rates, by reference to appropriate macroeconomic data, including the Bank of England's Credit Conditions Survey. Once a conclusion had been made on the two figures mentioned above, then the Monetary Creation Committee would authorise the creation of the amount of money arrived at in the first figure. This newly created money could then enter the economy in either or both of two ways, depending on the estimate from the second figure:

1. The first (and most common) of these would be to grant the money to the government (by increasing the balance of the Central Government Account). The government would then spend this money into circulation, as discussed in the next section. This process would increase the money stock without increasing the level of private debt in the economy and can therefore be thought of as 'debt-free' money creation.
2. The second method would be for the central bank to create new money and lend it to banks, with the requirement that this money would be on-lent to businesses that contributed to GDP (but not for mortgages or financial speculation). This option would provide a tool to ensure that businesses in the real economy did not suffer from a lack of access to credit.

Both options are considered in more detail below.

SPENDING MONEY INTO CIRCULATION

Upon making a decision to increase the money stock, the MCC would authorise the central bank to create new money by increasing the balance of the government's account. This newly created money would be non-repayable and therefore debt-free.

The newly created money would then be added to tax revenue and distributed according to the elected government's manifesto and priorities. The newly created money could be used for any one or a combination of the following:

- To finance additional government spending
- To finance tax cuts (with newly created money substituting for the lost tax revenue)
- 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)
- To pay down the national debt

Increasing government spending: By using the newly created money to increase government spending, the government could increase the provision or quality of public services such as education, health care or public transport, without increasing either the tax burden on the public or the amount of public sector borrowing. Depending on how the money is spent, this mechanism may have the highest impact on GDP. For example, figures from the Confederation of British Industry suggest that £1 of spending on construction may boost GDP by up to £2.80. See the report *Sovereign Money: Paving the Way for a Sustainable Recovery* (Jackson, 2013) for in-depth discussion of various spending options.

Cutting taxes: Rather than increasing government spending, the elected government of the day could choose to reduce the overall tax burden. As a general principle, any government using the proceeds of this reform to reduce taxation could aim to reduce or eliminate some of the most regressive or market distorting taxes. There are, however, problems with this approach: while changes in taxes are made infrequently, the amount of newly created money spent into the economy would be determined on a monthly basis. Not being able to predict or influence the decisions of the MCC would mean that the government would have no certainty as to how much new money would be created each year and therefore by how much it would be able to reduce taxes. For this reason, cancelling or reducing taxes may not be the most effective way (in terms of the government's financial planning) of distributing newly created money into the economy.

Making direct payments to citizens: One alternative is for the newly created money to be shared equally between all citizens (or all adults, or all registered taxpayers). This would also mean that the newly created money would be most widely distributed across the economy, rather than being concentrated in particular areas of the country or sectors of the economy

as a result of large government projects. However, the boost to GDP may be more limited, as citizens may use some of the money to either repay debt, to save, or to spend on imports (affecting the exchange rate), meaning that only a proportion of the money may be spent on activities that actually boost GDP.

Paying down the national debt: The government could use the newly created money to retire (pay down) some of the national debt. However, there are problems with this approach, one of which is the fact that the newly created money would go first to holders of government bonds and would tend to stay circulating within the financial markets, rather than reaching the real economy, meaning that the effect on GDP would be limited or negligible. In addition, the national debt is currently smaller and incurs a lower rate of interest than private debt.

LENDING MONEY INTO CIRCULATION VIA BANKS AND OTHER INTERMEDIARIES

After the reform, the Monetary Creation Committee would also be tasked with ensuring that businesses in the real (non-financial) economy have an adequate access to credit. The central bank would monitor the UK economy both through quantitative and qualitative methods (such as the Bank of England's Credit Conditions Survey). If, based on this analysis, the central bank concluded that banks were unable to meet demand for loans from creditworthy borrowers and businesses and this is negatively affecting the economy, then the central bank may make up the shortfall by creating additional money specifically for the purposes of lending to businesses.

This money would be lent to banks with the requirement that the funds are only lent to businesses outside the financial sector (rather than property or financial sector companies). The funds could also be lent by the central bank to other intermediaries, such as business-orientated peer-to-peer lenders, regional banks, or publicly owned business banks. Banks would still be responsible for deciding which businesses they should lend to, and the central bank would not be making loans direct to businesses, nor choosing the businesses that are to receive loans.

This ensures that a floor can be placed under the level of lending to businesses, guaranteeing support to the real economy. This is especially important in the UK, where less than 10% of all bank lending goes towards businesses that contribute to GDP (Ryan-Collins et al. 2011).

REMOVING MONEY FROM CIRCULATION

In a growing economy it is unlikely that the MCC will ever have to reduce the money stock, as long as the monetary growth rate is in line with growth in GDP. The Money Creation Committee should aim to be cautious in their creation of money and increase the stock of money slowly and steadily, which should ensure that there is little need for later reductions in order to correct earlier 'overshooting'. However, in the unlikely event that the MCC does wish to reduce the money stock, there are four mechanisms for removing money from circulation:

1. By removing money (with agreement) from the government's account at the Bank of England, directly reducing the amount of money in circulation. This effectively involves taxing money out of existence. While this would potentially be the most efficient way of decreasing the stock of money, it may also be the most difficult politically.
2. By selling securities that the Bank of England already owns (such as Gilts or Treasury bonds) and removing the money received for them from circulation. Similarly, the Bank of England could remove money by issuing new bonds, such as the Bank of England bills it occasionally uses for this purpose. This method would be most likely to be used to effect temporary and reversible reductions in the money stock.
3. By choosing not to roll over loans to the banking system that it had previously made. After the reform, any creation of money by the Bank of England to lend to banks (for on-lending to businesses) would increase money in circulation. Conversely, the repayment of these loans would remove money from circulation. The Bank of England could then re-inject this repaid money by re-lending it to the banks, but by choosing not to do this, the amount of money in circulation would fall.
4. By not re-circulating some of the 'Conversion Liability' to the government. As discussed in the next chapter, when the demand liabilities of banks are converted into state-issued electronic currency, they will be replaced with a new liability to the Bank of England, which is effectively a charge to the banks for the electronic state-issued currency. This 'Conversion Liability' will be repaid to the Bank of England over time as the bank's loans are repaid. Normally, this money would automatically be granted to the Treasury immediately and spent back into circulation. However, if the Bank of England needed to reduce the money stock, it could choose not to recirculate some of the funds it receives via the Conversion Liability and instead destroy this money, reducing the money stock in the process. This is probably the easiest method for permanently removing large amounts of money from circulation, although it will only apply during the transitional period.

ACCOUNTING FOR MONEY CREATION

'Money' in a full Sovereign Money system would consist of:

- Coins – issued by the Treasury (following current arrangements)
- Banknotes – issued by the central bank, but printed by a specialist printer
- Electronic sovereign money – issued and stored electronically at the central bank

In accounting terms the electronic sovereign money would be a liability of the central bank's Issue Department's balance sheet, just as central bank reserves and banknotes are today. However, recording this money as a liability is merely an accounting convention, and does not imply that the central bank or government is 'in debt' to the holders of money. Bank notes are

currently recorded as liabilities, but anyone returning a banknote to the central bank will only be given other banknotes of equivalent value. (Banknotes have not been redeemable for gold in the UK since 1931.) Therefore central bank does not 'owe' the holders of banknotes anything. In the same way, holders of electronic sovereign money will not be able to demand anything other than identical electronic money from the central bank.

However, this raises an accounting dilemma. If sovereign money is recorded as a liability of the central bank, then the creation of additional sovereign money involves an increase in their liabilities. Without an equal increase in assets, this could make them insolvent in a strict accountancy sense (although in practice, solvency constraints do not apply to central bank in the same way that it applies to other banks or businesses). So to get around this accounting problem and adhere to conventions, sovereign money would be balanced on the central bank's balance sheet by government bonds that would be 'zero-coupon' (non-interest-bearing) and 'perpetual' (with no maturity date). The government would issue these bonds specifically for the purposes of allowing the central bank to 'balance' its sovereign money liabilities. The zero-coupon perpetual bonds would not count as part of the national debt, as they have no servicing cost (i.e. no interest) for the government, and no repayment obligation.

This structure of accounting for money creation adheres to accounting conventions whilst also acknowledging the fact that money issued by a sovereign state is not a debt of that state, or an obligation to repay anything other than identical money. Instead, it is a token which individuals and businesses use to facilitate trade.

PART 5: MAKING THE TRANSITION

There are two broad choices for the transition process: either a phased in approach, or an immediate switch. Our proposals ensure that either approach can be implemented without disruption to the wider economy.

INTRODUCING A PARTIAL SOVEREIGN MONEY SYSTEM

In the first, phased-in approach, the central bank would start to create money directly, transferring this money to the government for spending into the economy, as described above. However, banks would still be permitted to operate as they currently do, creating money in the process of making loans. Money, as used by the public, would continue to consist of demand deposits that would need to be guaranteed via deposit insurance. However, the influx of sovereign money would offset to a degree the reduction of the money stock as existing debts are paid off, and reduce the demand for new borrowing currently needed to replenish the money stock.

Over time, regulations such as capital and liquidity requirements and lending criteria (e.g. maximum loan-to-value ratios for mortgages) could be tightened to restrict how much money banks could create, and a larger proportion of the growth in the money stock would come from money creation by the central bank. Whilst this hybrid arrangement is in place, this would constitute a partial Sovereign Money system. In due course, a date would be set from which banks would be required to switch over to the structure of banking described above, and would therefore lose their ability to create money.

This partial Sovereign Money system is described in considerable detail in the paper *Sovereign Money: Paving the way for a sustainable recovery*, by Andrew Jackson. It is likely to be more politically feasible as a stepping stone towards a full Sovereign Money system, as it does not require immediate changes to the way that banks work and provides a way for the reforms to be phased in over time. This would be seen as lower risk by the authorities (the central bank and the Treasury or finance ministry) and would face less lobbying in opposition from the banks.

The following list shows which advantages are still gained by introducing a partial Sovereign Money system, and which benefits can only be gained by making the switch to a full Sovereign Money system.

ADVANTAGES OF A PARTIAL SOVEREIGN MONEY SYSTEM IN A RECESSION:

- Creation of Sovereign Money stimulates the real economy and GDP many times more effectively than either Quantitative Easing or bank lending (which is predominantly directed to property or financial markets).

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- Sovereign money creation would generate additional revenue for government without a need to raise taxes or borrowing. This could offset the fall in tax revenue during a recession and reduce the pressure for fiscal consolidation (which could exacerbate a recession worse by removing demand from the economy).
- By providing a source of money that doesn't have to be borrowed into the economy (and therefore doesn't increase private debt), it can make it possible for the public to deleverage (i.e. pay down debts) without this causing a contraction in the money stock. This makes it possible to avoid debt-deflation.
- Sovereign money can be created counter-cyclically, i.e. more in a recession, to balance out the swings in money creation by banks and to make the money stock more stable.

ADVANTAGES OF A PARTIAL SOVEREIGN MONEY SYSTEM IN A GROWING ECONOMY:

- Creation of Sovereign Money provides an alternative to bank-issued money, and therefore allows aggregate demand to grow without necessitating rising private (household and corporate) debt. (Rising private debt is problematic because it increases the likelihood of financial crisis.)

ADVANTAGES IN GENERAL:

- A partial sovereign money system would still run on the dual money system of central bank reserves and bank deposits. Consequently, the creation of sovereign money in a hybrid system will lead to an increase in the central bank reserves held by commercial banks, increasing the liquidity of the banking system as a whole. (This could however cause problems if it became excessive and excess liquidity led to a dangerous 'search for yield'.)
- The lobbying power of banks would be reduced: with an alternative source of money creation to bank lending, banks could no longer argue that any regulation would "harm their ability to provide credit and therefore harm the economy".

DISADVANTAGES OF ONLY SWITCHING TO A PARTIAL SOVEREIGN MONEY SYSTEM:

- Bank customers would still not have a safe way of storing funds in banks, and so deposit insurance would still be necessary. Consequently, risk and reward are not aligned and risk-taking will still be excessive. The taxpayer and government would still be 'on the hook' for bank failures.
- Because banks would still continue creating the bulk of the money stock, they would continue to receive the effective seigniorage and would therefore still be subsidised.
- The payments system is not protected from the failure of banks. Consequently, many banks would still be 'too big to fail'.
- It would still be necessary to try to control money creation by banks through the use of base rates and regulation, even though these tools have been ineffective to date.

- A partial sovereign money system does not provide ways to limit speculative bubbles in property or financial markets.

Ultimately a switch to a partial Sovereign Money system delivers only some of the benefits, but leaves some very large problems in place. Switching to a full Sovereign Money system delivers all the benefits listed above, but also addresses a much wider range of problems, and would therefore have much greater advantages.

MAKING AN IMMEDIATE SWITCH TO A FULL SOVEREIGN MONEY SYSTEM

Switching immediately to a full Sovereign Money system involves transferring the power to create money from banks to the central bank overnight. This can be done without changing the level of money stock in the wider economy, and without causing a damaging contraction of the amount of credit available. In this overnight process, the bank-issued demand deposits, which make up 97% of the money stock, would be converted into state-issued sovereign money held in accounts at the central bank. Instead of having a liability to their customers, each bank would now have an equivalent liability to the central bank (so that there is no overall impact on the size or nature of their balance sheet).

There are two elements of the transition to a full Sovereign Money system:

- The overnight ‘switchover’ on a specified date when the demand deposits of banks would be converted into state-issued currency and customers’ accounts would be converted into Transaction Accounts and Investment Accounts.
- A longer transition period, for potentially 10-30 years after the reforms, as the consequences of the conversion of demand deposits into state-issued currency would allow a significant reduction in private (i.e. household and business) debt and a gradual reduction in the size of the aggregated balance sheet of the banking sector.

The economy would be operating on the basis of the reformed monetary system immediately following the switchover. However, it would take a longer period of transition to recover from the ‘hangover’ of debt created by the current debt-based monetary system. The monetary system could not be considered fully reformed until this process was complete (specifically, until the ‘Conversion Liability’ explained below had been fully repaid).

Stylised balance sheets for the central bank, the commercial banking sector and the household sector prior to the reforms are shown in the Appendix in Figure 1. Figure 2 shows the same balance sheets one day after the reform, whereas Figure 3 shows the balance sheets 30 years after the reform. These balance sheets can be found at the end of the paper.

THE OVERNIGHT 'SWITCHOVER' TO THE NEW SYSTEM

The following steps would take place instantaneously on a specified date, known as the 'switchover' date.

The first step would be to calculate each bank's total amount of pound sterling demand liabilities. Secondly, the total aggregate demand liability of each bank would be removed from its balance sheet, and an equal amount of new state-issued currency would be created and placed into the new Customer Funds Account that the bank would administer.

This would be state-issued currency, held at the central bank, which would belong to the demand deposit account holders. In effect, the central bank would have 'extinguished' the banks' demand liabilities to their customers by creating new state-issued electronic currency and transferring ownership of that currency to the relevant customers. Simultaneously, each bank would convert its fixed-term and fixed-notice savings accounts into Investment Accounts. These Investment Accounts would still be recorded on the balance sheet of each bank as liabilities of the bank to the customer.

Customers of banks would then have either a) electronic money in their Transaction Account, with the actual money being held at the central bank, and which could be used to make payments on demand, or b) a claim on a bank, via their Investment Account, which has a maturity date or notice period and which would still be a liability of the bank, to be paid in the future. Each bank would no longer have any demand deposits at all, and the only accounts held on its balance sheet would be Investment Accounts, with fixed term and/or fixed notice periods.

If removing the demand liabilities from bank balance sheets were the end of the process, then the UK banking sector in aggregate would lose a significant liability without losing any corresponding assets, which would increase their collective net worth and shareholder equity. To negate this effect, the old demand liability to the customers would be replaced with a new liability, called the Conversion Liability to the central bank, leaving the net worth and balance sheets of the banks completely unchanged (see Figure 2 in the Appendix). The assets side would also be unchanged, as reserve accounts – deposits of banks at the central bank – would simply be converted into the new Operational Accounts, which would still be held as an asset of the commercial bank.

The Conversion Liability owed by each commercial bank to the central bank would in effect be a charge, at face value, for the money that the central bank would have created to extinguish the bank's demand liabilities to its customers. The liability would be repayable to the central bank at a schedule that matches the maturity profile of the bank's assets (i.e. as the bank's loans to businesses and the public were gradually repaid, the bank would repay the central bank). Under normal circumstances the central bank would be required to automatically grant the money paid to it as a result of the repayment of the Conversion Liability to the Treasury to be spent back into the economy.

ENSURING BANKS WILL BE ABLE TO PROVIDE ADEQUATE CREDIT IMMEDIATELY AFTER THE SWITCHOVER

From the changes made in the previous section, we can see that on the morning immediately following the switchover, the Investment Pools of banks would have balances of zero, implying that banks would be unable to lend until they had first acquired funds from elsewhere (although banks would be able to lend the money from their Operational Accounts). This section looks at where this funding for lending could come from.

As a matter of routine banks would be able to access funds from their customers:

From new Investment Accounts opened by customers: On any particular day, there will be a number of customers who wish to put money aside to earn some interest. Upon opening Investment Accounts they will provide funds for lending.

From loan repayments from existing borrowers: The money from these borrowers, if it were not needed to repay Investment Account holders (many of whom could be expected to roll over their investments) could be re-lent. Bank of England statistics show that bank loan repayments from households and non-financial corporations are currently averaging around £40bn per month on total loans of around £1.5 trillion, representing a repayment rate of 2.5% per month. There is a further £670bn on loan to other financial corporations, which is almost certainly being repaid at a considerably faster rate. The BoE doesn't provide figures that enable this rate to be calculated, but the UK National Accounts show that while around 50% of loans to non-financial corporations have a maturity of less than 12 months, for financial corporations the figure is 90%. If the finance sector loan repayment rate is taken as a conservative 10% a month this would mean there would be in total over £100bn a month of repayments becoming available to finance new lending. That is 80% of monthly GDP. Banks currently also earn around £200 million per day in interest payments.

Taken together, these points suggest that it is unlikely that banks will find themselves short of funds to lend immediately after the reform. However, if these sources provided inadequate, banks could also obtain funds from two additional sources.

Lending the money created through Quantitative Easing: After the overnight switchover the reserve accounts at the central bank would be converted into Operational Accounts, which would hold state-issued electronic currency. Crucially, unlike central bank reserves (which can only be used to make payments to other banks), this state-issued currency will be available for banks to spend or lend to members of the public. As a result, on the morning after the switchover, in the UK there would be £217.6bn of state-issued currency in the bank's Operational Accounts (on 2012 figures). This sum would be far beyond what the banks would need for actual operating funds (i.e. to cover salaries, rent and other operating costs), and would earn the bank no interest. For this reason, the bank would probably wish to use a significant proportion of these funds for lending. For that reason, it would be unlikely that there would be any shortage of funds available for lending by banks on the day after the switchover.

In fact, the danger immediately after the reform may not be that there would be a shortage of lendable funds, but that there would be a glut of funds due to the large balances in these Operational Accounts, and as a result an incentive for banks to lend too much too quickly. For that reason, the central bank may want to take steps to reduce the amount of central bank reserves before the switchover, to avoid the risk of a potential lending boom. This could be done quite simply by allowing the bank to immediately use some of these post-QE funds to pay down their Conversion Liability (see below).

Lending the money created by the MCC: As explained in Part 4, if the central bank concluded that banks were unable to meet demand for loans from creditworthy borrowers and businesses and that this was negatively affecting the economy, then it could make up the shortfall by lending a pre-determined amount to commercial banks expressly for this purpose - i.e. the central bank would lend to banks to on lend into the economy.

THE LONGER-TERM TRANSITION

REPAYMENT OF THE CONVERSION LIABILITY

Figure 3 in the Appendix details how the balance sheets of the economy would look after the transition was complete. The Conversion Liability would be repaid as the bank's pre-reform loans were gradually repaid. The exact rate of repayment would need to be agreed between the bank in question and the central bank, to ensure that the repayments would be spread fairly evenly over a number of years and that the rate of repayment did not reduce the bank's ability to provide a useful level of lending throughout the transition.

Repayment of the Conversion Liability momentarily reduces the money stock and the central bank's assets in equal measure as funds in commercial banks' Operational Accounts at the central bank are used to repay the commercial banks' conversion liability to the central bank. Normally (i.e. when the central bank does not want the money stock to fall) the repayment of this liability would result in the central bank immediately creating an equivalent amount of money by crediting the Treasury's account, from where it could be spent back into the economy. Over a period of around 20 years this would give the government additional seigniorage revenue equal in value to the total Conversion Liability. This seigniorage does not increase the money stock; it is simply the recycling of loan repayments (by businesses and households) back into the economy via spending rather than new lending.

ALLOWING DELEVERAGING BY REDUCING PRIVATE SECTOR DEBT

There is a crucial difference between loan repayments made by borrowers in the current monetary system and loan repayments in a full Sovereign Money system. Within the current system (and within a partial Sovereign Money system), when loans are repaid, the bank reduces both its assets (the loan) and its liabilities (the borrower's bank account balance) in tandem, reducing the quantity of bank deposits and thus the money stock. For the money stock to return

to its previous level requires someone else to borrow, which restores the overall level of personal and corporate debt. This precludes any significant reduction in the level of private sector debt, as a smaller broad money stock tends to be associated with a lower level of economic activity and an increased likelihood of recession. After the reform, loan repayments would not reduce the money stock, because the act of repaying a loan would simply involve transferring state-issued electronic currency from the borrower's Transaction Account to the bank's Investment Pool. From the bank's Investment Pool the money would either be used to make further loans, repay Investment Account holders, pay shareholders, staff or suppliers, or, during the transitional period, repay the bank's Conversion Liability to the Treasury.

The repayment of the Conversion Liability would transfer money to the government's bank account, from where it would be spent back into the economy. As a result, the money stock would be maintained, although because the money this time would be spent and not lent into circulation, no new debt would be created and overall levels of private debt would fall.

It is important to remember that while the transition process requires banks to repay the Conversion Liability to the central bank, it would not require there to be an amount of money equal to the conversion liability in circulation; the same units of state-issued currency, when recycled through the system, could be used to repay multiple debts. For example, with a conversion liability of £1 trillion, if the banks were to pay back just £50bn of their Conversion Liability each year, the entire Conversion Liability could be repaid in around 20 years, as each time money was repaid to the central bank it would grant an equivalent sum of money to the government to be spent back into the economy. This would have the effect of maintaining the money stock while levels of private debt decreased.

In addition, the Conversion Liability would not drain money from economy or the banking system. When the money that would be received by Treasury was spent back into the economy it would be transferred back to the Customer Funds Accounts administered by the banks. Each bank would then be able to encourage customers to transfer some of this money into Investment Accounts to fund its lending.

PART 6: RESPONSES TO COMMON CRITIQUES

The following are a number of common objections and concerns with the proposal to switch to a sovereign money system.

“IT IS UNNECESSARY. DEPOSIT INSURANCE MAKES THE BANKING SYSTEM SAFE.”

For example, see the Independent Commission on Banking’s analysis of full reserve banking⁴.

Governments currently guarantee the liabilities of banks by promising bank customers that they will be reimbursed (from taxpayer funds) if the bank fails. In the UK, this ‘deposit insurance’ guarantee amounts to the first £85,000 of an account, per person per banking institution. (EU: €100,000; US \$250,000). This is intended to make the system safer, by reducing the incentives for bank customers to ‘run’ on the bank when they hear rumours of a potential failure.

Yet deposit insurance, rather than making the system safer, actually makes it more risky. Section 4.4 of *Modernising Money* gives a deeper analysis of the problems with deposit insurance, but in brief:

- Deposit insurance amounts to the government guaranteeing the bulk of bank liabilities.
- This removes the incentives for bank customers to take an interest in (or ‘monitor’ in economic terms) the activities of their bank.
- This leaves banks free to take whatever risks they like without scrutiny from customers.
- The role of monitoring their activities is therefore left exclusively to the regulator (who is usually under-resourced to do so adequately).
- Bank customers, staff and shareholders benefit from the upside of bank investments, but the taxpayer takes the ultimate losses once the risk taking leads to a bank failure.
- This can lead to greater risk-taking by the banks, and therefore greater risk of failure.

In an economic sense, deposit insurance causes a fundamental misalignment between risk and reward. Those who stand to benefit from the upside of risky investments will not suffer the downside, and therefore will take levels of risk that are not optimal for society.

It should also be noted that deposit insurance did not protect the payment system in the UK, as some have argued. Without large-scale taxpayer-funded bailouts, two of the UK’s largest banks would have failed and the payment system would have broken down.

4 <http://s3-eu-west-1.amazonaws.com/htcdn/Interim-Report-110411.pdf#page=102>

“IT’S UNNECESSARY. WE JUST NEED BETTER REGULATION”

For example, see Ann Pettifor: “[W]e should once again regulate the banks and bankers. The creation of credit should be carefully regulated, managed and directed at productive, sustainable activity.”⁵

We first have to recognise that banks have strong incentives that will encourage them to lend too much to speculative activities (such property and financial markets) and that these incentives will not lead to the ‘optimal’ level of money creation for the economy as a whole. Banks prefer to lend for the purchase of existing assets (real estate and financial securities) since these can be used as collateral to secure the loan while it is being repaid. Significant lending into these markets increases prices and therefore increases their apparent value as collateral and reduces the apparent riskiness of the loans.

In short, in the boom times, banks will be encouraged to create excessive sums of money through lending (as shown by the doubling in the UK money stock in just 8 year preceding the crisis). In the recession, it will be hard-to-impossible to encourage them to create new money to keep the economy going despite low interest rates (as witnessed by the contraction of lending to businesses post-crisis).

The pro-regulation view assumes that the regulator is capable of countering the “greed and recklessness” of banks and of leaning against these mis-aligned incentives. But most fundamentally it assumes that regulators actually have any control over what banks do. This is an extremely optimistic view, for a number of reasons:

- The financial system now is far more complex than it was in the 1950s-1970s, and therefore is much more difficult to regulate.
- In discussions with a senior official at one of the largest 4 UK banks, we were told that their department is currently dealing with 90 ‘pieces’ of legislation affecting their business, whereby one of those ‘pieces’ was the ~9,000-page Dodd-Franks bill. The Basel Capital Accords, which were proven to be inadequate in the crisis, has been expanded in terms of page count by four times. It is entirely certain that regulation this complex is full of loopholes and opportunities for ‘regulatory arbitrage’ and will fail to prevent banks from taking behaviour.
- Regulators are always under-resourced relative to the banking sector. The former Financial Services Authority had fewer than 4,000 employees to regulate the entire financial sector. Yet just one of the largest UK banks has approximately 1,500 staff dealing with regulatory and compliance issues (realistically, avoiding fines from the regulator but also looking for ways to ensure that regulations do not restrict their activities).

More complex regulation is unlikely to address the problems of the financial crisis. What is needed is greater simplicity: banks that can fail without threatening the payments system or

5 <http://www.primeeconomics.org/?p=2629>

calling on taxpayer funds. Our approach ensures that private risk-taking remains private, and losses cannot be socialised.

That said, any measures to change regulations to direct more credit and lending to the real economy would be beneficial. However, the Basel Capital Accords currently create a systemic bias towards property lending over business lending.

“IT’S UNNECESSARY: JUST REMOVE STATE SUPPORT FOR BANKS AND LET MARKETS HOLD THEM TO DISCIPLINE”

This argument often comes from the Austrian school of economics, and proposes that banks would not have taken so much risk without the safety nets provided by governments and central banks. Furthermore, without these safety nets, those banks that were mismanaged would have been liquidated and would have made way for new market entrants with better business practice: in other words, bad businesses would make way for good ones.

The argument makes sense, but the policy prescription of removing deposit insurance and lender of last resort whilst keeping the current structure of banking is a dead end. If deposit insurance (the £85k on bank balances) were officially withdrawn, the first rumour of potential problems at a large bank would be enough to encourage a run on that bank. In such a situation, the government would immediately re-instate deposit insurance (in the same way that deposit insurance caps were raised or removed during the financial crisis). Likewise, central banks are unlikely to have the nerve to refuse to lend to a bank in distress, knowing that the failure of one bank could rapidly cause a breakdown in the payments system.

These problems remain as long as the payment system consists of liabilities of commercial banks, because any bank failure threatens the payment system and therefore the entire real economy. A sovereign money system tackles this problem by separating the payments system (made up mainly of Transaction Accounts) from the risk-taking activities of banks, and allows taxpayer-funded safety nets to be removed without risking a panic in the process.

“SWITCHING TO A SYSTEM WHERE LENDING IS DEPENDENT ON PRE-EXISTING SAVINGS WOULD CONSTRAIN THE LEVEL OF CREDIT (LENDING), HARMING GROWTH AND THE REAL ECONOMY.”

The basic premise of this argument is that removing the banking sector’s ability to create money will reduce its capacity to make loans, and as a result the economy will suffer. However, this ignores several crucial issues.

First, the implicit assumption is that the level of credit provided by the banking sector today is appropriate for the economy. But as recent history has clearly shown, the banking sector has actually provided excessive credit to many parts of the sector, causing property bubbles and financial market volatility. Banks lend too much in the good times (particularly for unproductive

purposes), which creates a boom and often a bubble. However, when the bubble bursts banks cut back their lending, harming businesses. Bank lending is therefore highly pro-cyclical and rarely at a level which is appropriate for the economy (or which would lead to stability and stable economic growth).

Secondly the argument is based on the assumption that bank lending primarily funds productive investment. However, in reality lending to businesses outside the financial sector can account for as little as a tenth of total bank lending. The rest of bank lending does not contribute directly to GDP, and much of it may in fact be harmful to the economy (for instance, unconstrained lending for property was a prime cause of the housing bubble that triggered the 2007-08 financial crisis).

Third, as discussed in Part 5, in the UK loan repayments on existing debts held by businesses and households amount to around £40bn of repayments every single month. Around 2.5% of the outstanding stock of loans is repaid each month. In a sovereign money system the money from these repayments is available to be re-lent, providing a constant source of financing for new loans, without any new money needing to be created in order to keep the existing stock of money constant.

Fourth, even if loan repayments and interest payments were insufficient to meet the demand for new borrowing, then banks would not need to wait passively for funds to come into the bank. They could instead raise the interest rates they offer to attract more funds from customers. Market mechanisms would therefore ensure that any shortage of credit would push up the interest rate, attracting new funds from savers.

Fifth, any individual bank faced with a shortage of funds to invest could approach other banks to enquire about any excess funds they might be holding and borrow from these banks.

Sixth, as inflows of sovereign money permit the levels of private debt to shrink without a reduction in the level of money in circulation, disposable income of households would increase, and with it, spending in the real economy. This would boost revenue for businesses and make it easy for businesses to invest using their own income rather than using loans.

Finally, if there were a shortage of funds across the entire banking system, particularly for lending to businesses that contribute to GDP, the central bank always has the option to create and auction newly created money to the banks, on the provision that these funds are on-lent into the real economy (i.e. to non-financial businesses).

INTEREST RATES WOULD BE TOO HIGH

There are two assumptions behind this critique:

- That banks working in a sovereign money system would be unable to provide sufficient credit for the economy, meaning that interest rates would rise to harmful levels.

- That because savings accounts would no longer be guaranteed by the government, savers would demand much higher interest rates in order to encourage them to save.

We explained above why a Sovereign Money does not imply a shortage of money or credit in the economy. This fact alone means there is no reason for interest rates to start rising rapidly.

The second point is disproven by the existence of peer-to-peer lenders in the UK. In many senses existing peer-to-peer lenders work in a similar way to the lending function of banks in a sovereign money system. They take funds from savers and lend them to borrowers, rather than creating money in the process of lending. There is no government guarantee, meaning that savers must take the loss of any investments. The peer-to-peer lender provides a facility to distribute risk over a number of loans, so that the failure of one borrower to repay only has a small impact on a larger number of savers. Despite the fact that the larger banks benefit from a government guarantee, as of May 2014, the interest rates on a personal loan from peer-to-peer lender Zopa is currently 5.7% (for £5,000 over 3 years), beating Nationwide Building Society's 8.9% and Lloyd's 12.9%. This shows that there is no logical reason why interest rates would rise under a banking system where banks must raise funds from savers before making loans, without the benefit of a taxpayer-backed guarantee on their liabilities.

Some raising this objection may cite the behaviour of interest rates during the short-lived monetarist experiments in the UK and USA from 1979 to 1982. This was a time when central banks abandoned attempts to control interest rates at the same time that considerable economic uncertainty demanded high rates. The reforms will reduce economic uncertainty by stabilising money and credit availability, thereby extending planning horizons, increasing confidence and reducing the demand for high interest rates.

“IT WOULD BE DEFLATIONARY.”

Objections that these proposals would be deflationary (causing the economy to contract and prices to fall) rest on two arguments:

- The idea that the level of credit would fall, leading to a fall in demand, spending and prices. We explained earlier why this would not be the case.
- The idea that the proposals would leave us with just the 3% of money that exists as cash, with the other 97% somehow disappearing from the economy. But as we explain in Part 5 (Making the Transition), the switchover to the Sovereign Money system can be done without any change to the money stock. In addition, immediately after the switchover, new money can be injected into the economy.

There is therefore no risk of the reforms being deflationary.

“IT WOULD BE INFLATIONARY / HYPERINFLATIONARY.”

On the other extreme, some argue that a Sovereign Money system would be inflationary or hyperinflationary. There are a number of reasons why this argument is wrong.

Firstly, money creation can only become inflationary if it exceeds the productive capacity of the economy (or if all the newly created money is injected into an area of the economy that has no spare capacity). Yet these proposals clearly state that the central bank would have a primary mandate to keep prices stable and inflation low. If money creation feeds through into inflation, the central bank would need to slow down or cease creating new money until inflationary pressures fell. So there are clear structures to prevent excessive creation of money.

Secondly, hyperinflation is typically a symptom of some underlying economic collapse, as happened in Zimbabwe and Weimar Republic Germany. When the economy collapses, tax revenues fall and desperate governments may resort to financing their spending through money creation. Appendix I of *Modernising Money* covers this process in depth, looking at the case of Zimbabwe. But in short, the lesson from hyperinflation is that it is important to build governance and checks and balances that will prevent political abuse of the power to create money. Hyperinflation is not a consequence of monetary policy; it is a symptom of a state that has lost control of its tax base.

“A COMMITTEE CANNOT ACCURATELY DECIDE HOW MUCH MONEY SHOULD BE CREATED.”

This arguments tends to run as follows:

- A centralised committee can't possibly make a decision as complex as how much money is needed in the economy as a whole
- It is therefore much better to decentralise the decision to thousands of bank clerks who can assess loan applications and make decisions about who is credit worthy and who is not. This approach (leaving it to the banks to create money) is likely to lead to a more appropriate level of credit and money for the economy.

First, it is important to clarify that in a Sovereign Money system, it is still banks – and not the central bank – that make decisions about who they will lend to and on what basis. The only decision taken by the central bank is concerning the creation of new money, whereas all lending decisions will be taken by banks and other forms of lending company. Some critics fail to read the proposals and assume that the proposals advocate central committees deciding who does and doesn't get a loan.

The argument above rests on a huge assumption: that banks, by assessing loan applications on a one-by-one basis, will result in an overall level of lending (and money creation) that is appropriate for the economy as a whole. Yet this is clearly false. During the run up to the financial crisis, when excessive lending for mortgages pushed up house prices and banks assumed

that house prices would continue to rise at over 10% a year, almost every individual mortgage application looked like a 'good bet' that should be approved. From the bank's perspective, even if a borrower could not ultimately repay the loan, house price inflation meant that a bank would cover its costs even if it had to repossess the house. So it is quite possible for decisions taken by thousands of individual loan officers to amount to an outcome that is damaging for society.

More importantly is the system dynamics of such an arrangement. When banks create additional money by lending, it can create the appearance of an economic boom (as happened before the crisis). This makes banks and potential borrowers more confident, and leads to greater lending/borrowing, in a pro-cyclical fashion. Without anybody playing the role of 'thermostat' in this system, money creation will continue to accelerate until something breaks down. The 'thermostat' needs to limit the rate of money creation before a real bubble is reached. One potential thermostat that would stop money creation is a financial crisis, brought on by the excessive money creation in the first place, but in this case the system has already failed. An alternative is regulators, who could in theory step in to restrict banks' ability to create money. In reality however regulators have very weak, if any, control over how much money banks can create (for reasons discussed in Chapter 3 of *Modernising Money*).

In short, banks will never produce the optimal amount of credit of their own accord; they will produce either too much (boom) or too little (recession). Overall, this is a system that is designed to get out of control, and almost guaranteed to lead to cycles of boom and bust.

In contrast, in a sovereign money system, there is a clear thermostat to balance the economy. In times when the economy is in recession or growth is slow, the Money Creation Committee will be able to increase the rate of money creation to boost aggregate demand. If growth is very high and inflationary pressures are increasing, they can slow down the rate of money creation. At no point will they be able to get the perfect rate of money creation, but it would be extremely difficult for them to get it as wrong as the banks are destined to.

“THE PROPOSAL IS CENTRAL PLANNING OR REQUIRES CONTROL BY AN ARMY OF TECHNOCRATS.”

This critique argues that placing the power to create money in the hands of a body at the central bank is overly centralized, amounts to central planning or relies on rule by technocrats.

Firstly, does the proposal amount to 'central planning'? The Money Creation Committee would be responsible for just two things: a) identifying the increase in the money stock needed to promote non-inflationary growth, and b) keeping an eye out for a shortage of credit to the real economy. They are not responsible for deciding how to spend newly created money, as this decision is given to the elected government (just as with the decision on how to spend all tax revenue). Neither are they responsible for deciding which businesses get loans or investment, as this decision remains with banks (and the savers who provide them with funds). The job of lending is left to the markets. In light of the reality, arguments that this proposal amounts to

central planning imply either a lack of understanding of what central planning is, or a liberal use of hyperbole.

Secondly, is this process of money creation over-centralised? We would argue that the decision over how much money to create necessarily has to be centralised within one currency bloc. However, the decision over how the money is spent can be as decentralised as one would wish. The most decentralised method of distribution would be to divide the newly created money equally between all citizens and allow them to spend it as they see fit. But decentralisation of the decision of how much money to create is unworkable. If the decision is decentralised by giving a range of banks (whether private or publicly owned) the power to create money, every individual bank has the incentive to create more money to maximise loan revenues. The overall result will be excessive levels of money creation. If each bank is to be given a quota for how much money to create, then this necessitates a central decision maker again. If the decision were decentralised to say, local authority governments, who were permitted to create money up until the point that it started to fuel inflation, then every local authority would have the incentive to create as much money as quickly as possible, in order to create and spend the maximum amount in advance of other local authority governments and before the combined effect led to inflation.

Finally, does the proposal rely too much on an army of technocrats? Probably less so than the current system. The existing MPC are relied upon to make decisions on interest rates that have huge influence over the returns that savers make on their pensions, on how much householders pay on their mortgages, and how much businesses must pay in interest to banks. This is a blunt tool with far-reaching consequences. In contrast, the creation of new money in the controlled and measured manner proposed has a much more precise and concentrated impact, and does not have the same level of ‘collateral damage’ upon the wider economy.

“THE SHADOW BANKING SECTOR WOULD SIMPLY CREATE SUBSTITUTES FOR MONEY. NEAR-MONIES WOULD EMERGE AND THE CENTRAL BANK WOULD LOSE CONTROL OF MONEY CREATION.”

The concern here is that restricting the ability of banks to create money will lead to the shadow-banking sector creating close substitutes for sovereign money, thus circumventing the intention of these reforms. However, there is minimal risk of this happening, for a couple of reasons:

- Unless there is a shortage of money, there will be no demand for money substitutes. So this argument only applies if there is a genuine shortage of money in the economy. We’ve addressed the reasons why this is unlikely above.
- Even in a recent case of shortage of money in the economy (i.e. the years following the financial crisis) there is little evidence of ‘near monies’ rising up and taking the place of bank deposits on any economically significant scale.

- Any money substitutes created by the shadow banking system would be risk bearing, whereas money in Transaction Accounts would be entirely risk-free. The company or shadow bank attempting to issue near-monies would have to offer significant advantages over a standard Transaction Account in order to compensate for this risk.

However, the emergence of near-monies is actually extremely easy to prevent. For any shadow bank's liabilities to function as near-monies, they would have to be as easy to make payments with as normal sovereign money in a Transaction Account. This would mean that it must be possible to make payments with them using the same payment networks as the banks do: BACS, CHAPS, Faster Payments and so on in the UK. Therefore any shadow bank that wishes to connect to these payment systems must be required to operate as a Transaction Account provider, and would therefore have no ability to create money. Any shadow bank that was not willing to work in this way would find the payment services it offered would be less widely accepted and therefore less useful, and not an effective substitute for sovereign money.

“IT’S IMPOSSIBLE FOR BANKS TO BE PROFITABLE IN THIS MODEL.” / “BANKING WOULD BE UNVIALE.”

In a sovereign money system banks provide two essential functions, both of which can be highly profitable.

- The payments system. Billions of pounds are transferred between accounts every single day. MasterCard, Visa and various other payment networks all run successful businesses by providing payment systems. It is unrealistic to think that banks would be unable to find a way to generate a profit given the fact that they sit at the centre of the national payments system.
- The lending/saving function. Banks would perform this function just like any other part of the financial sector, by getting funds from savers and investing them in financial assets and loans. The rest of the financial sector is profitable. It seems unrealistic to think that banks cannot also generate a profit from providing this service.

“THIS IS A MONETARIST POLICY.”

Currently, the Monetary Policy Committee attempts to control bank lending – and therefore the quantity of broad money in the economy – by influencing the interest rate at which banks lend to each other on the interbank market (for a good description see Clews et al., 2010). After the reform, the MCC would have direct control over the money stock and so there would be no need for the MCC to use interest rates to affect it. Instead the money stock would be controlled directly, with interest rates determined by the markets.

This has only a superficial resemblance to the monetarist policies of the 1980s. It is important to note that the main reason monetarism failed was because central banks were attempting to control the growth in bank deposits (mainly through bank lending) through restricting the

monetary base. The theory was that the quantity of money on deposit at the central bank (reserves) could be used to restrict the quantity of deposits at private banks (broad money). This policy was in part based on a money multiplier view of bank lending – that banks required deposits (or central bank reserves) before they could make loans. However, the money multiplier model gets causality the wrong way round – loans in fact create deposits and reserves are required by banks only to settle payments between themselves. In short, base money is endogenous to the creation of bank deposits and is supplied by the central bank on demand. Central Banks were unable to credibly restrict the supply of reserves to any private bank once it had made loans, as to do so could have led to the bank in question being unable to make payments to other banks. This could have led to a bank run and as such would have contravened the central bank's remit to maintain financial stability.

However, under the reforms outlined here commercial banks would no longer hold deposits on their balance sheets – all money would exist on the central bank's balance sheet (i.e. there would only be one quantity of money circulating in the economy, used by banks and non-banks alike). As a result, the central bank would not be attempting to control the creation of deposits on commercial banks' balance sheets through limiting deposits on its own balance sheet; rather, as money would exist only on the central bank balance sheet, and because the central bank would be the only creator of money, the MCC would be able to control the money stock directly.

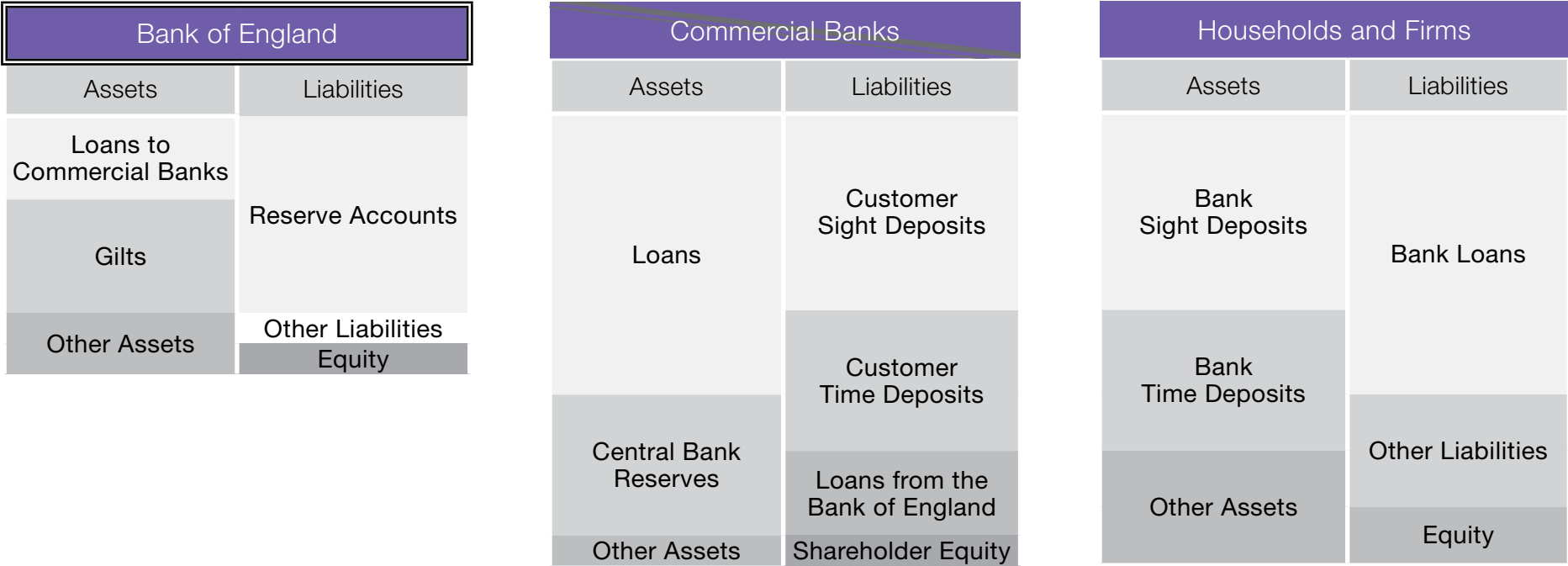
With the MCC having direct control over the amount of money in the economy, the interest rate-setting Monetary Policy Committee at the central bank would no longer be needed and could be disbanded.

In addition, monetarists were mainly concerned with inflation, and saw all money creation as inflationary. In contrast, a sovereign money system recognizes that there are situations in which money creation actually raises demand and output rather than simply causing inflation. Monetarists also saw inflation as the main threat to the economy, and were willing to let unemployment rise in order to keep inflation under control (although in theory this did not work). In contrast, proposals for a sovereign money system have a strong focus on how money creation can be used responsibly to boost employment and output.

APPENDIX: BALANCE SHEETS PRE- AND POST-TRANSITION

The charts on the following pages show the stylised balance sheets of the Bank of England, commercial banks, and the private sector (households and firms together) at three points in time: today, one day after the switchover, and 30 years after the reforms have been implemented.

FIGURE 1: STYLISTED BALANCE SHEETS IN THE CURRENT MONETARY SYSTEM

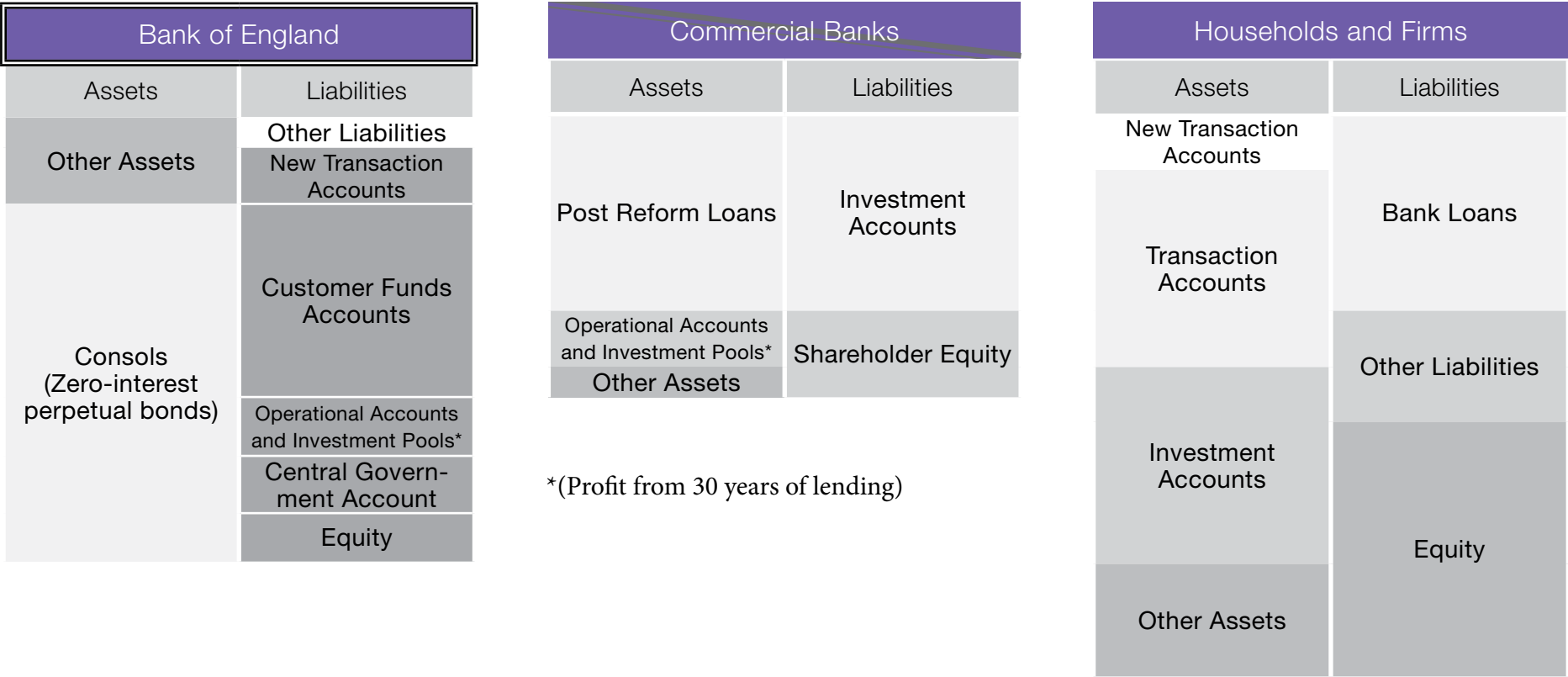


Bank deposits exceed the quantity of loans due to the effects of QE. During QE the Bank of England purchased bonds from non-banks. This led to an increase in deposits and reserves one for one.

FIGURE 2: STYLISED BALANCE SHEETS FOR THE MONETARY SYSTEM THE DAY AFTER THE REFORM

Bank of England		Commercial Banks		Households and Firms	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Loans to Commercial Banks	Other Liabilities	Pre Reform Loans	Liability to Bank of England	Transaction Accounts	Bank Loans
Gilts	Customer Funds Accounts		Investment Accounts	Investment Accounts	
Other Assets	Operational Accounts and Investment Pools		Loans from Bank of England	Other Assets	Other Liabilities
Commercial Bank Liability to Bank of England	Central Government Account	Operational Accounts and Investment Pools	Shareholder Equity		Equity
	Equity	Other Assets			

FIGURE 3: STYLISED BALANCE SHEETS FOR THE MONETARY SYSTEM 30 YEARS AFTER THE REFORM



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