

# A response to critiques of ‘full reserve banking’

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In this response to critiques of ‘full reserve banking’ or ‘sovereign money’ proposals, we challenge four of the main criticisms made by Fontana and Sawyer (this issue): (i) the impact of the proposal on government finances and fiscal policy; (ii) the impact of the proposal on the supply of credit to the real economy; (iii) the danger of private money creation re-emerging in the shadow banking sector; and (iv) the argument that shadow banking, not commercial banking, is the real source of financial instability.

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*JEL classifications:* E42, E50, E62

## 1. Introduction

The call for papers for this special “‘Cranks” and “brave heretics”” issue of the Journal refers specifically to Positive Money proposals (‘for a radical restructuring of the way in which money is produced and used’) and relates them directly to views categorised as those of ‘monetary cranks’ in *The New Palgrave Dictionary of Economics* (Clark, 2008). This effectively set the seal on our status, to which Fontana and Sawyer (2016; hereafter F&S) and Nersisyan and Wray (2016; hereafter N&W) in this issue have happily added their stamp. In this response, we hope to show that we have been miscategorised.

Other critiques of full reserve banking have been made by Dow (2016, this issue) and Dow *et al.* (2015), while Lainà (2015) surveys the history of the idea and van Dixhoorn (2013) provides a literature review and comparison of similar (but distinct) proposals. In this response, we will speak only for our own proposals, which are summarised in Dyson *et al.* (2014), and will use the term ‘sovereign money system’ to distinguish them from other superficially similar proposals such as full reserve banking or narrow banking.

We wish to address four main concerns raised by F&S and N&W in this issue. First, F&S focus on a sovereign money system’s impact on government finances, arguing that it would place constraints on fiscal policy that do not exist today. We argue that there is in fact no difference as far as the Treasury’s policy space is concerned. Second, both papers claim that prohibiting money creation by banks would be economically

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destructive: in N&W's words, it would 'run our economy into the ground' (N&W, 2016, p. 25). We argue that the reality of bank lending and firm investment is a challenge to this assumption and ignores the fact that the central bank can always create money to finance lending to the real economy. Third, we address the argument that if money creation by banks is prohibited, then money creation in the form of 'near monies' will simply shift to the shadow banking sector. Finally, we address the claim that financial instability has its real source in the shadow banking sector, so that our focus on commercial banks is misplaced. Space does not allow us to address many of the other points made by F&S, but their omission from this response does not imply our acceptance of those arguments.

## 2. Problems with the current monetary system

A consequence of the historical development of capitalist banking is that in the USA, UK, eurozone and most other advanced economies, more than 95% of a nation's money stock is privately issued, in the form of commercial bank demand deposits (current/checking account balances) (Ingham, 2004B). Banks create new demand deposits when they issue loans (McLeay *et al.*, 2014; Ryan-Collins *et al.*, 2012). Graziani's original monetary circuit describes the money creation process as starting when a bank makes a loan to a creditworthy entrepreneur (Graziani, 1989), while Sawyer (2013) has described a more modern monetary circuit, which is initiated when a bank makes a loan to a household to finance consumption. However, in most cases today, the circuit starts with a bank creating money to provide a mortgage to a borrower (Michell, 2016), potentially allowing them to bid up the price of housing and land (Turner, 2015).

The deposits created by banks as they lend are 'backed' by risk-bearing financial assets—loans, mortgages, etc.—and a small pool of central bank money held in the form of reserves at the central bank. Banks benefit from 'official' support from the state in the form of liquidity guarantees (the central bank's lender-of-last-resort function) and credit guarantees (deposit insurance schemes such as the Federal Deposit Insurance Corporation (FDIC) in the USA or Financial Services Compensation Scheme in the UK) (Pozsar *et al.*, 2013). This means that bank demand deposits are in effect contingent liabilities of the state and ultimately of the taxpayer, as the last crisis made clear.

What determines how much money banks create? F&S (2016, p. 4) write that 'the amount of money which is created within any time period depends on the willingness of both banks to extend loans, and households and businesses to take out loans'. This is true: a bank cannot make a loan unless it can find a willing borrower. But we should avoid the trap of thinking of banks as providers of a public service who passively wait to meet the demand for credit from creditworthy businesses and households. Banks are profit-seeking businesses, and their main product is debt. They use incentive schemes and targets to encourage their staff to 'sell' (lend) more, whilst using marketing and sales strategies to encourage households to 'buy' (borrow) more. At the same time, they are in competition with other banks, aiming simultaneously to increase their market share and absolute size. Since banks do not face the negative externalities of their private money creation, they face powerful incentives to create 'suboptimally large' volumes of credit and money and direct most of this credit into property and asset markets rather than investment in production (Turner, 2015).

In [Dyson \*et al.\* \(2014\)](#), we argue that this monetary system is a key driver or facilitator of financial instability, asset price bubbles, unaffordable housing and unsustainably high private sector debt. It also has negative implications for public sector finances and rising inequality and may exacerbate ecological problems. We conclude that, on balance, the social and economic costs of private money creation outweigh the benefits.

### 3. A sovereign money system

The sovereign money approach is based on the view that money creation can be conducted more effectively and appropriately by the state than by commercial banks.

A sovereign money system makes two key changes to current arrangements. The first is that the central bank's primary instrument of monetary policy would cease to be the management of the policy ('base' or 'bank') interest rate and instead be the direct creation of money. The second change is that commercial banks would lose their capacity to create 'money' in the form of demand deposits, becoming simple intermediaries between savers and borrowers. These two changes together mean that private money creation is eliminated and exclusively replaced by public money creation.

Money as a means of payment currently consists of transferable bank deposits and cash, whilst banks settle up between themselves on behalf of their customers through the central bank money (reserves) they hold at the central bank. The original full-reserve banking proposals stipulated that the reserves held by banks should match the deposits held by their customers. Sovereign money takes this one step further by transferring the deposits themselves to the central bank, where they would be administered by banks as agents for the deposit holders. Payments would be made directly between these accounts rather than by way of commercial banks' reserves. Customers' central bank deposits would constitute risk-free central bank money and provide the liquidity needed to settle payments directly. Payments would not depend on the liquidity of the commercial banks and customers' money would not be at risk from commercial bank insolvency.

Banks would no longer be able to create loans by simply crediting the borrower's deposit, but would instead need to transfer money that they themselves held into the borrower's central bank account. Loans are therefore funded by money that savers and investors had transferred to a bank's possession for the purpose of lending out. Bank lending would not, therefore, result in the creation of new deposits, of new money.

With banks no longer able to create money, the task of creating new money consistent with a sustainable rate of change in economic activity would fall to the central bank. Rather than relying on manipulating the policy rate of interest to influence the borrowing of households and businesses and the consequential money creation by banks, the central bank would instead use its own powers of money creation to influence aggregate demand in order to meet its monetary policy objectives.

The government would set the objective and target of monetary policy. The central bank would calculate the change in aggregate demand it believed to be consistent with its target (as it does today when deciding on interest rate changes; [Bank of England, 1999](#)). It would aim to match this change by creating new money, which it would grant to the Treasury to be distributed through one or more of the following channels:

- (i) Increased government spending.
- (ii) Reduced taxes (using newly created money to compensate for the lost revenue).
- (iii) Direct grants to citizens (often referred to as helicopter money).
- (iv) Indirect lending to businesses (via banks or other business-focused intermediaries).

The Treasury would need to indicate the channels it intended to use to distribute any newly created money, so that the central bank could calculate the appropriate level of money creation. This requires more cooperation between monetary and fiscal policy than the principle of central bank independence would currently support. However, it is still the central bank that determines the level of money creation and the Treasury that determines how that money is spent.

Consequently, in a sovereign money system, monetary policy would work by financing a fiscal stimulus, boosting spending and aggregate demand. The role of the central bank's decision-making committee (e.g. the Monetary Policy Committee (MPC) in the UK or Federal Open Market Committee (FOMC) in the USA) is no longer to adjust the policy interest rate, but to adjust the rate of money creation.

Importantly, as long as the political mandate and appropriate institutional arrangements can be put in place, the spending financed by central bank money creation would be directed into the real economy, whereas much of the spending financed by commercial bank money creation is directed into property and financial asset markets. Consequently, money creation by the central bank in a sovereign money system will have a greater impact on aggregate demand, economic activity and employment than an equivalent amount of money creation (as it is currently allocated between sectors) by commercial banks.

A key difference between the current monetary system and a sovereign money system relates to the dependence on private debt. In the current monetary system, money is created when banks issue loans and therefore the money creation process relies on increases in the level of private sector debt. With sovereign money, the opposite applies: to borrow a concept from Modern Monetary Theory (MMT), money creation by the central bank increases the net financial assets held by the private sector.

#### **4. The impact on fiscal policy**

Much of F&S's critique focuses on the impact of sovereign money on government finances and the conduct of fiscal policy. They write that 'In contrast to current arrangements, under [full reserve banking] government expenditure would be constrained by lack of availability of finance' (F&S, 2016, p. 10). They argue that government spending is already financed by the creation of new money, which is destroyed by the payment of taxes and the sale of bonds.

This depiction of events assumes that the balance sheets of the Treasury and central bank can be consolidated so that any balances in the Treasury's account at the central bank are 'cancelled out' and effectively disappear. This view has been the subject of debate between Lavoie (2013), Fiebiger (2012) and Tymoigne and Wray (2013), amongst others. However, this consolidation is unhelpful, as it ignores the operational constraints on the Treasury's policy space.

In practice, in the UK and most other countries, the Treasury holds an account(s) at the central bank. When the Treasury spends, this account is debited and the reserve account of the recipient's bank is credited. When the Treasury collects taxes or issues

bonds, the reserve account of the taxpayer or bond buyer’s bank is debited and the Treasury’s account is credited. As a matter of policy, the central bank does not provide overdraft facilities to the Treasury; therefore, the Treasury’s account can only be debited if it has a positive balance. In other words, the Treasury’s account must be credited before it can be debited: the Treasury must collect taxes or issue bonds before it can spend.<sup>1</sup> Following [Roche \(2013\)](#), we agree that current operational arrangements mean that self-imposed operational constraints make the Treasury a currency user, while only the central bank is a currency issuer.

Wray and Tymoigne acknowledge that this situation applies in the USA:

[The] Fed is prohibited to be a net buyer of treasuries in the primary market (and is not supposed to allow overdrafts on the Treasury’s account) and thus the Treasury must have a positive balance in its account at the Fed before it spends. Thus, the Treasury must replenish its own account at the Fed either via balances collected from tax (and other) revenues or debt issuance to ‘the open market’. ([Tymoigne and Wray, 2013](#))

Reference to official documents confirms that the same arrangement applies in the UK ([National Loans Fund, 2015](#)).

In a sovereign money system, the Treasury can still set the desired level of government spending and the desired split of financing between taxation and bond issuance. It must still finance its spending through taxation and bond issuance, as in the current system. Consequently, a sovereign money system places no operational constraints on government finances that do not already exist in the current system.

## 5. Money-financed deficits

Much of F&S’s critique applies to the scenario in which governments are prohibited from issuing bonds, so that budget deficits must be entirely financed by money creation by the central bank. This is presumably following Friedman’s proposal, in which ‘government expenditures would be financed entirely by either tax revenues or the creation of money, that is, the issue of non-interest-bearing securities. Government would not issue interest-bearing securities to the public; the Federal Reserve System would not operate in the open market’ ([Friedman, 1948](#), p. 250).

We have never recommended this approach. In a sovereign money system, the Treasury would still be able to issue bonds and therefore automatic stabilisers would continue to work and fiscal policy would in no way become ‘completely subordinated to monetary policy’ ([F&S, 2016](#), p. 12).

## 6. Bond-financed deficits

[F&S \(2016, p. 13\)](#) acknowledge that if governments are still permitted to issue bonds—the situation that we have actually proposed—then ‘this case is similar to present

<sup>1</sup> Wray and others have argued that the spending must ‘logically’ come before taxing or bond issuance (see, e.g., [Tymoigne and Wray, 2013](#)), since taxes can only be paid and bonds purchased if reserves exist to pay them and the reserves can only exist if they have first been created. F&S seem to share this view. But in practice, it is only necessary for the government to have used money creation to ‘prime’ the central bank money monetary circuit. Once the initial stock of reserves is in the system, the Treasury can become a ‘money user’, taxing or issuing bonds so that those reserves return to its account and then recirculating them back into the economy via government spending, without any resulting net money creation at all. Indeed, this is what governments do today.

arrangements', with two alleged differences. First, they claim that bonds would be issued to cover the difference between the budget deficit and the target increase in the money stock, 'rather than the setting of policy interest rate' (F&S, 2016, p. 14). But as discussed earlier, for the UK at least, the purpose of issuing Treasury bonds is to cover the budget deficit. F&S appear to conflate bond issuance by the Treasury with the central bank's purchasing or selling of bonds (via sale and repurchase agreements or 'repos') to commercial banks to maintain the supply of reserves at whatever level is consistent with their policy interest rates.

Second, F&S anticipate that funding the budget deficit through newly created money rather than bonds will result in 'changing the balance in the funding of the budget deficit as between interest-bearing bonds and non-interest-bearing money' (F&S, 2016, p. 14). They base their analysis on the following equation:

$$\text{Budget deficit} = G - T = \Delta B + \Delta CBM$$

Viewed as an *ex post* accounting identity, it is easy to assume that government spending ( $G$ ) and tax revenue ( $T$ ) are fixed, so that any increase in the creation of central bank money ( $\Delta CBM$ ) must imply a smaller increase ( $\Delta B$ ) in the stock of bonds outstanding. F&S argue that this smaller stock of bonds would reduce the interest payments made by the government over time, 'as central bank money replaced bonds as the component of public debt' (F&S, 2016, p. 14). This would in turn reduce the income of bondholders and replace interest payments on public debt with other forms of public expenditure.

However, this analysis is flawed, as it assumes that the deficit would not change as a result of money creation by the central bank, so that a larger  $\Delta CBM$  must result in a smaller  $\Delta B$ . But in a sovereign money system, as described in Section 3, money creation by the central bank may be used to finance *additional* government expenditure or reduce taxation. Both of these options increase the deficit and the change in central bank money by equal amounts, leaving bond issuance unchanged. Alternatively, money creation may also be used to finance an unbudgeted direct distribution to citizens or be lent to the private sector, neither of which would enter the budget constraint. Consequently, it is wrong to assume that creation of money by the central bank will be used to simply reduce the level of bond issuance. This also addresses N&W's concerns that normal deficits would be insufficient to inject additional purchasing power into the economy.

Since many of F&S's further criticisms on fiscal policy issues rest on the incorrect assumption that bond issuance would necessarily be lower by the amount of money creation, we will not address them here.

## 7. The supply of credit

F&S claim that a sovereign money system has an 'inherent deflationary bias' which is likely to produce instability in the financial system (F&S, 2016, p. 7). They argue this is because withdrawing the private banking sector's ability to create new money will lead to (i) a shortage of credit to the real economy and/or (ii) an inflexible monetary system.

The first argument is based on the idea that existing savings would be insufficient to meet demand for lending to the non-financial sector (households and businesses). Unable to secure the credit needed to invest and expand, firms would be incapable of

creating new jobs and driving economic activity and ‘we would run our economy into the ground’ (N&W, 2016, p. 25).

These criticisms, addressed in detail by Positive Money (van Lerven, 2015), are summarised below.

First, the statement seems to assume that the money stock would be fixed. This is not the case. As Dyson *et al.* (2015, p. 8) write, ‘A fixed money supply would cause severe economic problems and limit economic growth’. For this reason, the money supply in a sovereign money system is not fixed, as the central bank is always able to create more and inject it into the economy if a shortage of money (or credit) is impacting adversely on its ability to reach its monetary policy target. As long as the central bank has an inflation/employment target, then it would always increase money creation (and therefore spending) whenever inflation/employment was below target; deflation due to insufficient aggregate demand would never be a problem. The argument that there will be an ‘inherent deflationary bias’ (F&S, 2016, p. 15) is therefore not supported.

Likewise, if there ever is a shortage of credit to the real economy, the central bank always has the option of making funds available to banks (and non-bank lenders) to finance lending to businesses (Dyson *et al.*, 2014). This not only counters F&S’s claim that monetary authorities would lack countercyclical tools in a sovereign money system, but should (again) eliminate any possible concerns of a ‘deflationary bias’.

Interestingly, N&W (2016, p. 27) concede that deflation is avoidable in a sovereign money system: ‘To prevent that [deflationary bias], we could grow government (‘thin air money creation’) to fill the demand gap.’ However, they go on to suggest that a sovereign money system would still be less flexible than the current one because ‘Private creation of money is more elastic in the sense that it is better able to respond to the needs of the economy’ (p. 27). The assumption is that the central bank cannot respond to the needs of the economy as flexibly as commercial banks.

Dyson *et al.* (2015) demonstrate that the flexibility and responsiveness of a sovereign money system depends not on which entity creates money, but on the criteria that trigger the creation of new money and how that new money finds its way into the economy. The policy space in a sovereign money system allows varying degrees of flexibility.

For example, at the extreme of a spectrum of flexibility, the central bank could provide loans of newly created money, at an interest rate of its choosing, on demand to any bank or non-bank lender that has a willing borrower. Such a system would be very similar, at least in terms of its economic effects, to the one we have today. The central bank would set the policy rate and would lend money at this rate. Money would therefore be created endogenously according to the demand for credit. Other policy regimes of varying levels of flexibility are possible. We suggest that the optimal system is probably one in which lending to businesses can be accommodated with the creation of new money by the central bank, but all other lending would be funded out of existing savings.

However, even in a less flexible system there should still be sufficient supply of credit. In a sovereign money system, a major source of funding for new loans will be repayments on existing loans. Money would not be destroyed when bank loans are repaid. Instead, loan repayments would transfer sovereign money from the borrower to the bank and this money could then be ‘recycled’ to finance the demand for new loans. This recycling would be sufficient to maintain the stock of loans at its current level, while the injection of new money by the central bank would allow households

and businesses to increase their savings so that the stock of loans could increase in line with the growth of economic activity.

## 8. Near monies

Both F&S and N&W express the belief that the central bank would not be able to retain control over which financial assets are used as a means of payment and therefore which are used as money. They anticipate the danger that near monies will emerge from the shadow banking sector. Here, we summarise the main points of our forthcoming assessment of this possibility (Dyson, 2016).

First, it is crucial to make a distinction between money as a store of value and money as a means of payment. Many of those writers who claim that near monies will spontaneously emerge from non-bank financial institutions seem to be referring to ‘money’ in the sense of highly liquid stores of value (see, e.g., Dow, 2016; van Dixhoorn, 2013). For example, money market fund (MMF) shares are clearly highly liquid stores of value and holders of MMF shares may see them as equivalent to bank deposits. But MMFs do not create additional purchasing power. They arrange the transfer of existing bank deposits from savers to borrowers, via the shadow banking system, as part of the secondary lending circuit (Dyson, 2016); however, the shares they create cannot be used directly as an additional means of payment (Michell, 2016).

Second, creating a substitute for state money as a means of payment is easier said than done. It is a truism that any entity can issue liabilities on themselves, but to get those liabilities used as a widely accepted means of payment requires that (i) there is a payment system allowing those liabilities to be reassigned from payer to payee and (ii) third parties will accept these liabilities in payment. It took a number of decades for banks to gain sufficient public trust in order to make bank deposits a perfect substitute for central bank money, and even this was only possible due to the courtesy of state-provided liquidity guarantees from the central bank and credit guarantees via deposit insurance. It is therefore straightforward to place constraints on firms wishing to offer payment services, which will make them unable to create money. Indeed, only minor tweaks to the current EU regulations (Payment Services Directives 1 and 2) are needed to achieve this aim (Dyson, 2016).

It is of course important to be aware of the risks of near monies emerging, but an assessment of those risks should be based on an understanding of the realities of payment systems and the difficulties of getting private liabilities widely accepted as a means of payment.

## 9. Shadow banking and financial stability

F&S (2016, p. 6) write that sovereign money proposals would only affect a small part of the financial system—commercial banks—and ignore the many non-bank intermediaries and shadow banks, which ‘account for most if not all of the growth of the financial system over the past decades’ and are considered to be the main cause of the financial crisis of 2007–09.

The first point to note is that much shadow banking activity was an extension of the transformation of maturity, credit risk and size traditionally undertaken on a bank’s balance sheet. Because the shadow banking process splits these ‘transformations’ across one or more of up to seven separate processes, each with its own balance sheet,

there is a proliferation of intrafinancial liabilities—liabilities from one shadow bank to another (McMillan, 2014; Pozsar *et al.*, 2013; Dyson, 2016). Measures of the growth of shadow banking typically reference gross liabilities, whereas the measures of the scale of conventional banking usually uses liabilities to the non-bank private sector. Consequently, much of this growth in shadow banking reflects considerable double counting, significantly overstating the scale of shadow banks relative to commercial banking (Pozsar, 2011).

Second, much shadow banking activity prior to the crisis was an attempt to meet the demand of institutional investors for ‘safe assets’. Institutional investors had a demand for safe assets partly because the sums of money they held greatly exceeded the coverage of deposit insurance, and therefore they could not hold significant funds at commercial banks without becoming unsecured creditors exposed to all of the opaque risks taken by the bank (Pozsar, 2011). Treasury bills (and bonds) were the preferred safe asset, but the level of demand for them exceeded their supply, fuelling the demand for the creation of ‘safe’ assets by the shadow banking sector.

However, in a sovereign money system, any individual or corporate entity can hold unlimited balances in the form of risk-free sovereign money held at the central bank. This satisfies some of the need for safe assets. Of course, sovereign money balances at the central bank will not be interest bearing, so there will still be a demand for ‘safe’ assets that bear interest. However, for many institutional investors, cash management will become easier when they no longer need to look for the ‘insured deposit alternatives’ created by shadow banks (Pozsar, 2011).

Finally, and most significantly, the shadow banks’ creation of ‘safe’ assets relied on the ability of commercial banks to create money (in the form of bank deposits) on demand. By definition, shadow banks could not access ‘official’, state-provided liquidity or credit guarantees (such as lender of last resort or deposit insurance). Instead, they indirectly accessed these facilities by taking out lines of credit with commercial banks or paying for credit guarantees from commercial banks, enabling them to achieve AAA credit ratings (Pozsar *et al.*, 2013). Banks could offer these lines of credit due to their ability to create demand deposits on demand. From the perspective of the hierarchy of money, shadow banks relied on commercial banks’ ability to create demand deposits at will, in the same way that commercial banks rely on the central bank’s ability to create money at will. Without the ability of banks to create money on demand and provide these liquidity guarantees, it may not have been possible for shadow banking activity to successfully create the illusion of ‘safe’ assets, certainly at anything approaching the scale achieved by 2008 (Ingham, 2004A, pp. 140–1).

## 10. Conclusions

We have argued that many of the criticisms of sovereign money put forward in this issue by F&S are invalid. First, on the impact on fiscal policy, a sovereign money system places no constraints on the Treasury’s ability to spend that do not already exist today. Monetary policy does not take dominance over fiscal policy.

Second, on the argument that limiting banks’ ability to create money would be economically destructive, we have shown that that the central bank always has the capacity to ensure there is sufficient credit to the real economy and that the recycling of existing savings would be sufficient to maintain the current level of credit.

Third, the argument that near monies would emerge from the shadow banking sector, so that the central bank loses exclusive control over money creation, seems to rest on a confusion between money as a means of payment and money as a liquid store of value. Shadow banks do not seem to create liabilities that function as a means of payment. Creating a new, widely accepted means of payment is far from easy and usually relies on official support from the state.

Finally, F&S argue that our focus should be on the rapid growth in shadow banking rather than traditional banking. But the growth and relative importance of shadow banking is overstated, because of significant double counting of gross liabilities. A sovereign money system goes some way to meeting the demand for safe assets by allowing any entity to hold central bank money in accounts at the central bank, reducing the demand for the product that shadow banks create. Finally, without the capacity to create money, banks are less able to provide credit or liquidity guarantees to shadow banks, making it less likely that such activity will be viable.

F&S (2016, p. 14) conclude by writing that ‘cranks base their arguments on analytical errors’, yet analytical errors underlie much of their critique. We hope this response corrects some of those errors of understanding and encourages others to give further consideration to this avenue of economic reform.

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