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**Coronavirus - Changing the Money System**

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The coronavirus pandemic presents an opportunity as well as a challenge. It has been said that you should never let a good crisis go to waste. This is an economic crisis as well as a health crisis. A crisis presents the incentive and the opportunity to do things differently; to make changes which would not otherwise be considered. This may be the occasion for changes to our monetary policy which are necessary and long overdue.

The coronavirus pandemic of 2020 is unique. Governments worldwide have responded to the pandemic by closing down their economies to reduce contact and save lives. This has produced a unique level of economic disturbance. From an economic point of view, coronavirus has been more disruptive than a war. To prevent the spread of the virus, economies have been shut down in 1 or 2 weeks.  In comparison, a war requires the diversion of a large amount of effort towards the army and weapons, but this takes place over several months.  People may be drafted into the army but they still have an income and their employers have time to find replacements.  
  
The coronavirus crisis caused a substantial proportion of businesses and people to lose customers and income, over a period of one or two weeks.  Suddenly people had no income but they still had expenses for rent, mortgages, living and so on. Inevitably there is a widespread trail of debt left behind.  Governments are providing loans and grants to keep the economy alive. But this means that governments too will be left with large levels of debt after the coronavirus is under control. An overwhelming level of debt is building up.

Unquestionably, the drop in economic activity is very sudden. The nature of the recovery is going to be important. To start with the optimistic view: The Office for Budget Responsibility (OBR) has produced a reference scenario (2020) which assumes a v shaped recovery. There is a sharp reduction in output over 4-5 months, followed by a bounce back as some of the lost production is made up over a period of 6-9 months. Based on this Calvert Jump and Michell (2020) have produced a range of different forecasts of public sector debt. Their overall conclusion is that public debt is unlikely to rise to unsustainable levels. Though, of course, it will be raised and some politicians are likely to use this to argue for further austerity.

But the OBR reference scenario is probably too optimistic. It is going to be several months before some sections of the economy, such as entertainment, are able to re-open. Many small businesses may not survive. The recession is more likely to take the form of a “tick”, a sharp fall followed by a slow recovery. On average it can take around 5 years to recover from a financial crisis (Reinhart and Rogoff 2009:229 & 233).

The situation may be worse still. We are still recovering from the 2007/8 financial crisis. Income growth in the period since 2007/8 has been very low (Bourquin et al. 2020). The coronavirus pandemic has damaged a recovery that was already feeble. Could we face an “L” shaped recession; a drop that is never recovered? There is precedent. The recovery from the 1929 crash was not complete until the start of the second world war (Reinhart & Rogoff 2009:236).

There are many reasons why the consequences of the Covid epidemic may be severe. Many businesses have been made bankrupt and will not be able to restart. Many people have been made unemployed. They will have lost skills and confidence and may not quickly be able to fit back into a changed economy. Some changes in transport and internet use will be long-lasting. Most people are still susceptible to Coronavirus. There are likely to be outbreaks of disease and a full-scale epidemic could recur over the winter. As the pandemic was worldwide, most countries will be suffering and there will be no single country that can generate demand and help to pull the world out of recession.

Around 93% of the global workforce has been affected by full or partial business closure due to the pandemic, (International Labour Organization monitor June 2020)

Global growth is forecast at -4.9% by the IMF (World Economic Outlook update June 2020)

High levels of debt could become unmanageable and there is a disconnect between the financial markets and the real economy which could pose a risk. ( IMF Global Financial Stability update June 2020)

There is also considerable ground for concern about the financial system. Even before the virus, the world economy was suffering from a long period of slow growth. The debt accumulated from coronavirus has added to the debts which have continued to build up after the Global Financial Crisis.

This is a good time to look again at monetary policy. The Global Financial Crisis illustrated fundamental weaknesses in the monetary system, that have not yet been corrected. This paper proposes some sensible and rational changes which are essential in the long term and may become urgent in the next months or years in order to overcome the looming depression that may well face us.

The changes that are needed may only be possible in the emergency conditions of a crisis. History shows that the monetary system changes in response to necessity rather than as a result of theory. State money creation to fund extraordinary direct government spending may be needed to overcome the debt problem that has been inherited from the global financial crisis and exacerbated by the coronavirus pandemic.

The next two sections of the paper describe why the monetary system needs to change. Section 2 describes the effect of an overwhelming level of debt; how it causes economic stagnation and why state money creation may be the best solution.

Section 3 considers the enduring influence of 18th century ideas on economic theory. Real money has never achieved the 18th century ideal. An enduring confusion between money as it really exists and money as it was imagined in the 18th century has led to ineffective monetary policy.

Section 4 makes the simple and relevant proposal that state money creation will provide the best remedy for the economic effects of the coronavirus crisis. Section 5 develops this proposal into a more general description of an effective and rational monetary policy that could be gradually and easily adopted with minimum disruption. It also discusses some problems with Modern Monetary Theory.

Section 6 considers how the effects of commercial lending by banks and financial agencies can be controlled. The idea of Full Reserve Banking is discussed but it is likely that a more diverse set of restrictions will be more effective in exerting control. Section 7 concludes.

**Section 2. Overwhelming Debt**

There is a worldwide problem of overwhelming debt which is being intensified by the coronavirus pandemic. The only real solution to this is state money creation.

During the lockdown, Individuals, businesses, organisations, charities and the health service have all been running up debts. Government has run up extraordinary levels of debt supporting the economy and will probably continue to run a deficit for several years as a result of unemployment and low taxes (Reinhart & Rogoff 2009).

This will exacerbate the economic stagnation which has bedevilled the world economy since [2008](tel:2008). There are a variety of explanations for this including secular stagnation, slowing innovation and demographics. But the clearest and most obvious explanation is on the demand side of the economy. High levels of debt have reduced spending (Lo & Rogoff 2015). This applies equally to individuals, businesses and governments. Low demand has also made investment unprofitable so a high level of debt has sparked a vicious cycle in which debt causes low spending, low spending reduces investment and low investment maintains the situation of debt.

This is described in Fisher’s Debt Deflation paper following the 1929 crash (Fisher 1933). Many writers believe that the financial crisis of 2007/8 was the result of an accumulation of debt. (Mian & Sufi 2015, Reinhart & Rogoff 2009, Wolf 2014)

*“the biggest problem we faced was not an impaired financial system but a severe debt overhang in the real economy. And fixing the banks cannot itself fix that problem. Faced with severe debt overhang, indeed, all policy levers have seemed inadequate. The result has been seven years of recession and only weak recovery”* (Turner 2016:74)

Overwhelming debt is the problem. Everybody is in debt. Individual people are in debt. Businesses are in debt. Local authorities are in debt. Government debt is only a small part of this. At every level and in every situation there is an uncomfortable level of debt.

Conventional economists over-emphasise government fiscal debt. But government debt should not be distinguished in this way. In modern economies, state and private debt are intertwined. State spending may be around half of GDP. If either half of the economy is depressed; the other half of the economy will be affected. Debts are transferred from the state to the private sector by increasing taxes and reducing spending. Alternatively business failures reduce tax revenue and increase welfare spending, transferring debt to the state. The most common sequence is for over-optimistic investments to lead to a squeeze on lending, followed by a collapse in production, a sharp reduction in government income and problems with state debt (Reinhart and Rogoff 2009:271).

*“Our biggest problem is ever-rising debt and the most worrying debt is not the public debt with which policy-makers are obsessed, but private debt, whose collapse, as we have seen, creates huge public debt problems.”* (Wolf 2014:192)

Some conventional economists minimise the importance of debt by concentrating on the total amount of wealth.

*“Ignoring the foreign component, or looking at the world as a whole, the overall level of debt makes no difference to aggregate net worth -- one person's liability is another person's asset.”* (Eggertsson & Krugman 2010)

This underestimates the way that high levels of debt distort the economy. Increasing levels of debt make businesses bankrupt and affect people’s abilities to pay rent and maintain their jobs. The effect is likely to be cumulative as reductions in spending lead to business closures and job losses which, in turn cause further reductions in spending and further job losses. As spending and demand decreases, there is less incentive to invest in increased production. It is easier and more profitable to gain rents from existing assets. According to Turner (2016:173), increasing levels of debt influence the nature of economic activity.

**High property prices**: In a debt-laden economy, acquiring assets that will grow in value becomes an important way of gaining wealth. Land in prime locations, like city centres, is likely to rise in price, because it is in limited supply (Werner 2005:207-214). Property investments are also attractive to banks because they provide a fixed asset as security.

**Inequality** The effect of increased debt varies depending on how people’s debt burden relates to their ability to repay. Debt falls more heavily on the poor than the rich. Richer people who lose wealth will reduce spending, but poorer people are more likely to be driven into the debt deflation cycle, where they are forced to waste resources just to maintain a minimum income. They may take poorly paid jobs or use high-cost payday loans. They may be forced to forgo opportunities or sell goods at reduced prices (Mian & Sufi 2015). As poorer households have a greater propensity to spend, rising inequality reduces the propensity to spend, reduces demand and encourages the wealthy to invest in assets rather than production (Wolf 2014:187&278).

**Global imbalances** The distortion of national economies is mirrored in the global economy. There are large scale imbalances between some countries that produce, sell and save and other countries that spend and run up debt. These imbalances mirror, on a global scale, the imbalances between rich and poor people (Wolf 2014:149-172 & Pettis 2013).

High levels of debt mean that a large proportion of people’s income goes into debt repayment. For the debtors, this is discouraging, because they know that most of their effort goes into other people’s pockets. Creditors, on the other hand, benefit from a steady income with little effort. But there is little incentive for them to produce goods since they get an adequate income from the assets they already own.

A high level of debt reduces the amount of purchasing power (or money) in the economy. [[1]](#footnote-1) Our present monetary system exacerbates the problem of debt. It is beyond the scope of this paper to go into the continuing debates about the nature of money. However, it is relevant to note that there is a perplexing duality between money and debt.

Most of us would consider that our bank balances represented our money. But legally, they don’t. Our bank statements record the money that banks owe us. Our “money” is actually bank debt. When we pay someone, we are transferring the debt that our bank owes us to become debt that the bank owes the person we are paying. But if we all asked the banks to pay us the money that we are nominally owed, they could not do it and the whole monetary system would collapse. This nearly happened in 2008 until central banks stepped in with large injections of credit to keep the system stable.

The simple picture, from conventional monetary theory, that money and debt are opposites is seriously misleading. The reality of our money supply is completely opposite to the rhetoric of much monetary policy. We are told to repay our loans. But if everyone really did this the economy would collapse through a lack of purchasing power.

Almost all our money is bank debt according to the Bank of England (Mcleay et al. 2014). Less than 5% is coins, notes and “high-powered” money created by central banks (Ryan-Collins et al 2011).

The supply of money is not constant. Banks create additional money when they make loans. As the loans are repaid, an equivalent amount of purchasing power is destroyed. The supply of purchasing power (in effect money) within the economy depends on a balance between new lending creating money and repayments destroying money.

Bank lending is pro-cyclical. So when the economy is prospering; bank lending increases potentially leading to a boom. When there is a loss of confidence, bank lending drops. As bank lending collapses, the money supply drops.

When there is an overwhelming level of debt, the amount of new loans will decrease. Potential borrowers will not wish to incur new debt. Banks will perceive many people as high risk. And a reduction in demand, as people pay off existing loans, will reduce the number of worthwhile investment projects. Meanwhile the level of repayments will be maintained, as people seek to pay off existing loans. The result will be a drop in the overall level of purchasing power. This may result in a recession or alternatively in a long period of stagnation and low growth.

Even before coronavirus, debt was steadily growing

*“Contrary to widely held beliefs, six years on from the beginning of the financial crisis in the advanced economies, the global economy is not yet on a deleveraging path. Indeed, the ratio of global total debt over GDP has kept increasing at an unabated pace and breaking new highs: up 38 percentage points since 2008 to 212% “ (*Buttiglione et al. 2014:11)

*“aggregate corporate debt has been rising over several years to stand at historically high levels relative to GDP. Household debt has also increased, particularly in countries that managed to escape the worst impact of the 2007-8 global financial crisis”* ( IMF Global financial Stability Report update June 2020)

Since then the situation has only got worse and the coronavirus crisis will exacerbate the situation still further. And once there is an overwhelming general level of debt it's very difficult to get rid of it.

*“Debt doesn’t go away-it simply shifts around.”* (Turner 2016:80)

How can we get out of debt, if it is everywhere? Making goods or providing services does not change the overall debt burden. This may surprise some economists. Our present system of fiat currencies is essentially different from the gold trading system that Adam Smith imagined. Colloquially, we might be told to make money. But if you really made money, it would be illegal. Fiat money requires no labour; it is created by tapping the keys of a computer. The power to create fiat money is legally restricted to commercial banks and the central bank. An individual might be able to get out of debt by producing more and earning more. But the fallacy of composition [applies. What](http://applies.what) is true for the individual is not true for the nation. If an individual earns more money, then someone else must pay and the overall level of debt remains the same. It is just transferred between different actors.

Almost all our money supply is created through bank loans. When a bank creates money by making a loan, it creates both money and debt at the same time. Once there is an outstanding burden of debt, the debt will never go away. New money created by a bank loan to repay outstanding debt, will also create an equal amount of new debt. Thus debt will move around – but will never be extinguished.

A widespread burden of overwhelming debt cannot be reduced by producing goods, because that just transfers money and debt between different actors. It cannot be reduced through creating new money by means of bank loans, because the loans also create new debt.

The direct way to reduce a widespread burden of overwhelming debt is for the state, through the central bank, to create money and spend it into existence. Only central banks have the authority to create money without debt and so reduce the general burden of outstanding debt. The outdated ideology of most conventional monetary theory considers this anathema. But it needs to be considered much more seriously according to Adair Turner (2016) and Mary Mellor (2016).

The effects of the coronavirus crisis may make this new approach an urgent necessity. To understand why much monetary theory is outdated and why we need a more rational and realistic monetary policy, the next section discusses how our monetary system became so dependent on debt.

**Section 3. Our changing money**

The reality of money has always been rather different from its image in economic theory. Monetary theory has an unfortunate tendency to minimise the role of the nation state and to imagine money as more consistent and unchanging than it really is. While the theory strives towards an international and universal ideal; the reality is that money is a national institution, reflecting national power and national wealth.

Times of crisis are also times of change. The nature of national money can be changed by a crisis, like other national institutions. As the reality of monetary practice changes, so monetary theory belatedly follows behind reality and explains in retrospect what has happened.

**The role of the State**

Though monetary theory has a different emphasis; in reality money is a national institution. It reflects national interests, national power and national wealth. Money has always been intimately linked with state power. The state has created and regulated money from the earliest times. Early coinage was minted by Greek city states and later by the Roman Empire. At times, as in the 18th century, banks or local manufacturers have started creating their own bank notes or tokens. But the central government has eventually found it necessary to control independent currency creation, both to assert the authority of the national government and also to ensure a reasonably secure and stable money supply (Helleiner 2003).

Money cannot exist completely outside the control of the state. Firstly because money can only be effective within established markets, which need the power of the state to enforce laws in order to function effectively. Secondly, money’s power to pay for political influence or if necessary, armies, means that national governments cannot allow such an important source of power as the money supply to be outside their control.

**The Ideal**

In contrast to the reality of national currencies, monetary theory is strongly influenced by an ideal of money with completely different origins. The ideal view of money is based on custom. Its intellectual basis comes from 18th century enlightenment ideals and its practical political force originates in the interests of business.

Custom, going back to pre-historic times, has linked money to precious metals. The origin of current monetary theory lies in the ideas of the late 18th century enlightenment, expressed in the writings of Adam Smith and David Hume. Enlightenment thinkers promoted logic and empirical evidence against the forces of tradition and hierarchy. Europe during the 18th century, was a jigsaw of hereditary monarchies constantly at war and juggling for power at the cost of human life and material destruction. So it is not surprising that Adam Smith should consider that the role of the state is mainly to waste resources in pointless disputes (Smith 1979:442-446).

Adam Smith and his contemporaries were influenced by Newton’s theories about the motion of the planets. So Adam Smith created an idealised model of money and the economy which would be stable and self-regulating, like the motion of the planets. In such an economy, state intervention would be superfluous and even harmful.

The political force behind the ideal view of money comes from business interests and the age-old contest between business powers and national [government.](http://government.national) Business wants sound international money unaffected by national borders with unchanging value everywhere. Business needs government help to produce the conditions in which business thrives: peace, stability, consistent laws and prices; but wishes that it didn't cost so much

“the *can’t live with it, can’t live without it, don’t want to pay for it* problem of the state” (Blyth 2013:100)

Business interests combine with the intellectual ideas of the 18th century and the prehistoric custom linking money to precious metals to promote an ideal view that money should be linked to gold and should be immune from the decisions of national governments. The quantity of gold is externally fixed and not easily changed (exogenous) so this ideal view does not consider the possibility that money might be created or destroyed or the possibility that the amount of money might need to be altered.

**How money has changed**

Money has changed over the last 300 years. Bank debt has replaced precious metals at the heart of the monetary system. This has not been a deliberate change. It has happened in stages more by accident than design. The supply of precious metals was not able to expand to meet the needs of an expanding economy, increased prosperity and wider use of money. Bank debt provided an alternative form of purchasing power. It was available, expandable and it was also more convenient than metal coins. In the view of an economic ideology opposed to state money creation, bank debt provided a convenient “market-based” alternative.

Without design, the reality of everyday transactions has just gradually changed to reflect the convenience and availability of bank credit. Monetary theory has followed some way behind monetary reality, adjusting the theory to practical changes that have already happened.

There have been some noticeable points of change in 1797 and in 1914, at times of war, when the state has needed to rapidly expand the available purchasing power to meet the needs of a national crisis.

In 1797 the British government instructed the Bank of England to stop providing gold in exchange for banknotes, in order to preserve supplies of gold for the Napoleonic war. This led to a lengthy period of public discussion over the next few decades, culminating in the Banking Act of 1844.

In 1914, Britain went off the Gold Standard, once again refusing to provide gold in exchange for banknotes so that the currency could be expanded to fund the war effort against Germany. This contributed to a period of monetary instability in the following decades, including the financial crash of 1929.

The Bretton Woods agreement after the Second World War helped to create a period of comparative stability until President Nixon ended the link between the US dollar and gold in 1971. Once again, it was the needs of war (the Vietnam war) that forced the change. Since then there has been a period of renewed uncertainty and an increasing domination of the international economy by financial managers. One commentator describes it as a non-system (Ocampo 2017).

These have been the marked points of change but there has also been a gradual transition as bank credit provided the additional purchasing power needed because supplies of precious metals could not expand fast enough. This was a result of the growth of population and prosperity. The total amount of purchasing power had to outgrow the supply of gold and the difference was supplied by various forms of bank credit. During the second half of the 19th century gold was being replaced in daily life by various forms of credit money (Davies 2002:355).

*“During the course of the century the total supply of gold increased substantially, but in irregular spurts; yet it could not keep pace with the steady increase in population and the increase in the average standard of living. The more manageably elastic part of the money supply was provided by the banking system..”* (Davies 2002:285)

*“Luckily, the world’s stock of monetary gold increased substantially during this period , from £519million in 1867 to £774 million in 1893, an annual rate of increase of 1.5 per cent; and to £1909 million by 1918, at an average annual rate of 3.7 per cent; helping to give confidence to a financial world that still worshipped gold, while in fact relying on bank deposits at least twenty times as large.”* (Ibid p359)

Bagehot (1873) and Wicksell (1936) provided a theoretical commentary on the changing nature of money. Wicksell’s ideas on adjusting interest rates have been influential in forming the basis of current monetary theory.

**Conventional monetary policy**

Conventional monetary policy is the result of superficially adapting the commodity money theory from the 18th century without altering the underlying fundamentals. The result is an illogical compromise based on the belief that commercial banks should control the money supply because states cannot be trusted. But, at the same time, commercial lenders cannot be trusted either, so states need to control bank lending.

Central banks aim to regulate the amount of lending by adjusting the interest rate. The most widely accepted policy rule is the Taylor rule (Taylor 1993) which assumes that reducing the interest rate will increase purchasing power by increasing bank lending and vice versa. But this is not straightforward. There are at least 17 different ways that the interest rate could affect the amount of economic activity (Fender 2012). Reducing the interest rate might reduce bank lending because banks decide that the costs of lending exceed the income from interest.

While the nature of money has changed radically in the last 300 years, changing from gold coins to bank credit; monetary theory still retains many relics of the 18th century. There is remarkably little coherent theory about the nature of money or how the amount of money might be altered. There is a strong bias against state control of the money supply but no realistic alternative.

Meanwhile, banks and financial agencies have taken advantage of the absence of any alternative. They have provided the purchasing power the economy needs by providing credit. Bank credit/debt has come to be over 90% of our money supply. This has appeared to be an easy option. It is a “market” alternative to creating money.

But this excessive dependence on commercial lenders to supply money, which is an essential public good, has serious disadvantages. It is potentially unstable. Banks lend more in a boom and withdraw lending when it is most needed, in a slump. In the long run, an even more serious disadvantage is that it gives commercial lenders substantial control of the economy. Banks decide which projects proceed and which do not. This is a serious democratic deficit. It cripples the ability of a democratically elected government to guide the economy. It also hampers any strategic direction to the development of the economy. In practice banks tend to favour the purchase of existing assets (especially houses) over the production of new goods because existing assets provide good security to the lender.

Careless bank lending and ingenious but misguided financial calculations contributed to the Global Financial Crisis. A better and more rational monetary policy is needed. The Coronavirus Crisis may provide the occasion to make a change.

**Section 4. A Practical Proposal**

Following the coronavirus pandemic, the UK and the whole world will be weighed down by an overwhelming level of debt. Businesses, individuals, banks and the government will all have more debt than they can comfortably manage. A substantial government stimulus will be needed to restore the economy. Simply maintaining the level of debt incurred during the crisis will not be adequate. The world will have changed forever. It may no longer be possible to go back to the monetary system as it was before. A new, better and more rational understanding of money will be needed.

It will be easy to make a difference by abandoning outdated monetary dogma. The state will need to create more money by typing numbers into the central bank’s computers. This will be the simplest and most effective way of restoring the economy after the coronavirus pandemic.

*“Central banks and governments together can create nominal demand in whatever quantity they choose by creating and spending fiat money. Doing so is considered taboo -  a dangerous path towards inflation perdition. but there is no technical reason money finance should produce excessive inflation and by excluding this option we have caused unnecessary economic harm.”* (Turner 2016:[214](tel:214))

This may partly happen by default. Governments will have unrepayable debts. Central banks will have to legitimise the situation. Effectively they will write off the debt. They may use some form of words to achieve this (like charging interest and then repaying it to the government). But central banks need to go further and explicitly create money for a spending package to revive the economy.

This is a logical extension of present practice. It is common for central banks to stimulate the economy when needed. Money creation is the most effective stimulus. So, in this extreme situation, central banks should wisely use the most effective tool at their disposal.

This will be an incremental change. It requires just a small change to existing practice on a particular occasion, needing minimal change to existing organisations. This is similar to the way that monetary policy has changed on previous occasions. It is more likely to be accepted than other, more distinctive ideas, such as Modern Monetary Theory and Full Reserve Banking, which are discussed in following sections.

Money does not change rationally, in response to a theoretical plan. Change in monetary theory usually follows from necessity. Theory follows practice rather than the other way round. A new practice is adopted for one occasion, such as the coronavirus pandemic. Initially, the change makes little difference. As people gain confidence, the new practice gradually becomes more common. Over time, a new understanding of money develops. In time, the new practice may be so accepted that a new generation considers the new practice to be normal.

A radical response to the coronavirus crisis will not need any change in the present separation of roles between the central bank (or Bank of England) and the treasury. The central bank would not spend the money it has created (because this is outside its current functions and also spending money on one project and not another is a political decision which is outside the normal function of the central bank). Instead the central bank would credit the newly created money to the government’s account. It would then be up to the treasury to decide how the money was used, to reduce taxes, or to increase spending. To ensure that the newly created money has a rapid effect on the economy, the central bank might require a definite change in government spending and tax plans, so that the new money is spent into the economy. Additional government spending or reduced taxes will increase employment, provide additional demand for goods and an immediate increase in prosperity. This will provide the boost the economy requires to recover after the coronavirus shutdown.

This proposal differs from quantitative easing as previously practised. In this proposal, the central bank passes money to government for rapid spending into the economy. In quantitative easing central banks do not provide money for direct spending. Instead they provide “high-powered” money to banks, usually by purchasing bonds. This reduces the effective interest rates on bonds and reduces interest rates. This might have enabled banks to lend more but lending did not increase as expected. The transition from “high-powered” money to actual spending was limited.

Conventionally banks are preferred as a way of injecting money into the economy, in deference to an outdated ideology. But, relying on banks, which are private corporations aiming to maximise profits, to create our money is philosophically dubious. Why should private companies supply a public good? It also gives banks an excessive amount of influence over the structure of the economy. Creating money indirectly through the loan rate and commercial banks is a cumbersome way of producing a result that can be achieved more directly.

Under conventional monetary policy, central bank may lower interest rates to stimulate the economy. In theory, this encourages banks to lend and entrepreneurs to borrow, because projects which are not viable at a higher interest rate might be feasible at a lower interest rate. However this may not be effective especially if interest rates are low (near the Zero Lower Bound to use the technical term). Instead it is proposed that to stimulate the economy, the central bank creates new money and ensures it is spent into the economy, instead of lowering interest rates. This would be a much more certain and definite way of putting more money into the economy than relying on banks to lend and businesses to borrow.

In theory, it is possible that government spending might crowd out private investment; but this is disputed. In the immediate aftermath of the coronavirus shutdown, there will be unused resources. People will have lost their jobs and businesses will need increased demand for their products. Additional government spending will help to restart the economy with little danger of inflationary pressure because of a lack of employees or materials.

Governments have been required not to create money because of a fear that they would overuse this privilege. But preventing nation states from creating money has not prevented financial crises. Indeed, the most common cause of financial crises is that private credit created by banks has been poorly controlled. Reinhart & Rogoff (2009:271) report that financial liberalisation often precedes crises.

Adam Smith accepted that state money creation could be helpful. He mentions the printing of paper money by the State of Philadelphia with qualified approval. He wrote that the success depended on:

*“ The demand for some other instrument of commerce…..secondly on the good credit of the government…….Thirdly upon the moderation with which it was used”* (Smith 1999:410)

Pennsylvania’s paper notes were successful because they were issued in moderation, unlike some other early American colonies, who issued too much paper money with disastrous results. Galbraith (1975:63) notes that the prejudice of 19th century scholars meant that the problems caused by over-issuing paper money got far more publicity than the benefits of a moderate issue.

Government money creation has been advocated by several eminent economists as part of proposals for Full Reserve Banking which is discussed in Section 6 (Friedman 1948).

These first steps to reform will be undertaken because they are practically and politically necessary. They may also be the first steps to a more radical change in monetary practice and theory.

**Section 5. A Better Monetary Policy**

The previous sections have shown how economic recovery from the coronavirus restrictions will need extraordinary monetary funding for a stimulus package of government spending. Initially, this will be an incremental change. Faced with an unusual challenge, the monetary authorities will take action that would not previously have been considered.

But this is not enough. The stimulus is needed because of the damage done by a failing monetary system based on outdated ideology which enabled the financial crash of 2007/8 and the following period of austerity. To build a better future, we need a more rational and effective monetary policy. This section will develop the ideas of the last section into a more complete monetary policy. The next section will consider how to control the financial sector to benefit rather than damage wider society.

A complete monetary policy needs to consider how to respond to a booming economy; even if this problem seems unlikely at the moment. If money creation is the best way to stimulate the economy, then conversely money destruction is the best way to restrain an over-expanding economy.  So when the central bank considers inflation is too high. It would instruct the government to run a surplus and return money to the central bank. The government would increase taxes or lower spending in order to achieve this.  
  
In this new monetary system, government spending would be controlled; but not by the irrelevant idea of balancing the books. It would be controlled by the needs of the wider economy. The central bank would ensure the money supply was at an appropriate level, neither too much nor too little. The easiest way to do this is to adjust the supply of state-created money. The central bank and the government, working together, would supply as much money as seemed necessary. State payments increase the money supply, taxes reduce it. So to increase the money supply, the state would run a deficit (payments > taxes). To reduce the money supply, the state would run a surplus (taxes> payments).

Generally, economic activity would be increasing at a steady rate, so the state would usually run small deficits so that the money supply increased gradually. If economic activity appeared to be increasing too fast and there were other warning signs (inflation, exchange rate problems, property bubbles) then the state might slow down the economy by running a surplus. This might be comparatively easy because tax income would be rising, so it might only be necessary to limit expenditure to previously planned amounts, instead of increasing it in line with tax income.

In other words, the economy will be regulated by government surplus or deficit; the balance between spending and taxes. Government would aim to achieve surpluses or deficits as required by the central bank. This would still leave the overall level of spending under the control of the government of the day. Governments could decide to increase or decrease spending and taxes; completely independently of advice from the central bank. The central bank would only dictate the difference between spending and taxes according to the needs of the economy rather than according to an outdated idea of fiscal balance.

To formulate this idea in a slightly different way; the state needs to regulate the amount of purchasing power to approximately match the amount of goods and services available. There is an idea that the amount of money is limited, but this is out of date. It derives from the use of precious metals. The state can regulate the amount of purchasing power in two ways. It can restrain or encourage commercial lending. Alternatively, it can create or destroy money. It is more direct and more effective to regulate the purchasing power in the economy by creating or destroying money, rather than by attempting to control the amount of bank lending.

**Present policy**

Money supply may reduce/increase (amount and timing uncertain)

Inflation High/Low

Bank lending may reduce/increase

CentraI bank raises/ reduces interest rates

**Simpler, more logical monetary policy**

Money supply will reduce/increase as budget changes take effect

CentraI bank authorises government surplus/deficit

Inflation High/Low

This proposal shares with Modern Monetary theory, the idea that state spending need not be constrained by an irrelevant and outdated idea of fiscal balance. The nation state has more policy space than is allowed by current monetary theory.

Modern monetary theory (MMT) developed from the state money theory of Knapp (1924 ). According to Knapp, money’s value originates from its function as the means of paying tax. If people need to obtain a particular token to pay the government tax then those tokens will also have value for commercial transactions. In this view, the government has no need to obtain money before it spends. The real situation is the reverse. The state has to spend to distribute money tokens before people can return the tokens to the government by paying tax. Several episodes of monetary history illustrate this approach.

The state view of money is developed in Abba Lerner’s functional finance view. He suggests the government budget should be determined by the needs of an agreed function – such as maintaining full employment – rather than by a narrow insistence on maintaining a balanced budget (Lerner 1943).

MMT complements the idea of functional finance with the idea of a Job Guarantee or the Government as Employer of Last Resort as a route to maintaining full employment. The idea is that the government should provide work at a minimum wage to anyone willing to work but unable to find a job. More recently some American politicians have suggested that MMT might provide a way of supporting projects which are urgently needed but have no funding under current budget arrangements; such as carbon reduction and the Green New Deal.

As might be expected, there is a large literature by advocates of MMT, particularly scholars associated with the Levy Institute of Bard College and also many issues raised by people who question this idea[[2]](#footnote-2) (Wray, 2012). It is beyond the scope of this paper to summarise this literature.

How do the ideas in this paper compare with MMT? Both agree that state money creation is possible and useful and would create additional policy options. MMT additionally proposes that the additional policy space could be used to create full employment or to fund a Green New Deal. These suggestions make MMT attractive to politicians that favour these policies. Academic commentators question whether these proposals are feasible. This question can be answered many different ways depending on what assumptions are made about institutions and politics.

But the policy proposals that make MMT attractive to some politicians also make it anathema to others and make it questionable for many voters. Some businesses and wealthy people oppose changes that give more policy space to central government. They will use their political influence to support conventional monetary ideas limiting government action.

By combining changes in monetary policy with proposals for practical new policies, MMT weakens both proposals politically. Neither changes in monetary policy nor the Job Guarantee scheme or the Green New Deal get considered properly on their own merits. The proposed changes in monetary policy look like special pleading for a particular policy proposal. Those who do not wish to consider the MMT proposal carefully, can easily portray it as paying for special projects by printing money.

The link between practical proposals and monetary changes has also caused criticism because this might obscure the traditional boundary between the central bank and the treasury. This boundary is probably not as sacrosanct as MMTs critics would suggest. But this paper avoids this potential difficulty by minimising changes and leaving the relationship between these institutions unchanged.

More critically, MMT does not generally include proposals for an important area of monetary policy; how banks and financial agencies can be controlled. This is the core aim of Full Reserve Banking and the topic of the next section.

**Section 6. Banking, Finance and Full-Reserve Banking**

In proposing a new monetary system, the role of banks and financial institutions needs to be considered. Commercial lending has been given a dominant role in providing purchasing power, more by accident than by design. But this has damaging consequences. It means that commercial lenders determine the nature of our economy and they can be expected to act in the interests of the wealthy. Commercial lending is also unstable; alternating between boom and bust. To manage the economy, central banks need to take responsibility for controlling commercial lending and regulating banks and other financial institutions.

One of the lessons of 1929 and 2007 is that the banking sector can create too much money by excessive lending. Excessive lending is followed by a crash, as it becomes clear that the loans cannot be repaid. Banks collapse as they lose money from failed loan repayments.

“*If there is one common theme to the vast range of crises we consider in this book, it is that excessive debt accumulation whether it be by the government, banks, corporations, or consumers, often poses greater systemic risks than it seems during a boom*” (Reinhart & Rogoff 2009:xxv)

Minsky (1986) wrote one of the best known analyses of how commercial lending can gradually get out of control. Keen (2011:337-356) explains the attraction of an increasing level of debt. Increasing lending creates a growth in demand. There is more money to spend, more employment, more profit. Tax receipts increase. Existing debts are easier to repay. But increasing debt also has to be repaid. While each individual may find it easier to repay their debt, this is only possible because other people are taking on more debt. The society as a whole is repaying existing debt by taking on more future debt. An apparently stable period hides the steady accumulation of debt until a crisis becomes inevitable. Keen uses the picture of a car accelerating. Initially it seems attractive, but then it becomes dangerous and eventually, you have to turn round and go back to where you started.

Banks can create money because of the “fractional reserve” system. A bank only needs to hold a fraction of the money in its deposit accounts, because it relies on its creditors not to ask for their deposits to all be cashed at the same time. Therefore banks can create money by lending out more money than they hold.

Full Reserve Banking (FRB) would require that for every pound deposited with them, banks would have to hold a pound of authorised central bank money in their reserves. Under this regime, banks would be required to hold cash reserves equal to the amount of their lending. This would ensure that additional purchasing power created by lending would be balanced by the reduction of purchasing power caused by cash being held in reserve.

Full Reserve Banking aims to separate the lending business of banks from their transactions function so that failed loans cannot endanger everyday transactions. Money creation is reserved to a central monetary authority (the central bank or, in the UK, the Bank of England). The monetary authority would create money in a limited amount and ensure it was spent into existence.

There would also be a separate system for people who want to lend money and accept some risk in return for interest. This would be achieved by creating separate “investment” accounts. People who put their money in investment accounts would know they were putting their money at risk in order to benefit from interest payments.

These proposals were originally formulated by Frederick Soddy in 1920; then after the 1929/30 financial crisis, publicised more widely as “the Chicago plan” by eminent economists associated with the University of Chicago including Irving Fisher. More recently, similar proposals have been re-formulated in the U.K. as “Positive Money “or “Sovereign Money”. They are probably most accurately described as “Full Reserve Banking” (FRB).

FRB could prevent abrupt changes in business activity caused by changes of confidence and resulting alterations in bank lending. It could prevent bank runs, since all banks would have to hold enough reserves to pay out all their depositors at once.

As money would all be created by the central bank giving it to the government to spend into existence, the government would not need to rely on borrowing money from banks. The level of private debt would be reduced since there would be a larger supply of debt-free money created through government spending. Money creation would no longer require the simultaneous creation of debt. IMF economists have confirmed that these benefits might theoretically be expected if these proposals were implemented today (Benes & Kumhof 2012).

However there are difficulties with Full Reserve Banking (Dyson et al. 2016:45-51). The money supply would be controlled by a small central bureaucracy. This would not be as flexible as multiple commercial agents. It could cause shortages or surpluses of credit or volatile interest rates. Central bureaucracies can also contribute to crises through over-confidence as they clearly did before the 2007 crash ( the “This time is different” scenario: Reinhart & Rogoff 2009).

Full-reserve banking will suffer from similar problems of regulation as monetarism. These apparently logical monetary policies suffer from multiple problems caused by near-monies. A near-money is anything similar to money but not so widely used including postage stamps, supermarket bonus points, deposit accounts or billing in arrears. Any of these represents a form of credit. Currently many forms of near-money exist but are not sufficiently prevalent to seriously affect the amount of purchasing power. But if there was an official limit to the availability of credit, then any near-money which got around the regulations would become commonly used. Goodhart (1975) put his frustration at attempting central monetary regulation into the form of a “law”; “When a measure becomes a target, it ceases to be a good measure”.

On a larger scale the international shadow-banking system would present a similar problem. Firms that could not get credit in a full-reserve banking system would raise credit abroad then transfer the money into the local currency. The international financial system has shown itself to be adept at getting around regulations. On a local level, credit regulations about bonus points or paying in advance might easily appear annoying and pointless in everyday life.

The final difficulty, which may well prevent FRB ever being implemented, is that this is an “all or nothing” reform. It needs new legislation. Banks would be legally required to hold a full reserve of centrally authorised money equal to the total of their deposits and would be forbidden to engage in transactions that amounted to indirect lending or money creation. The central bank would establish a central electronic register with a record of all the authorised money in existence. The legal changes would need to occur on one designated day, followed by a gradual transition to a new monetary system (Jackson et al. 2013). For most people, who feel that money is something mysterious that nevertheless controls their lives, any proposal to change the monetary system will be deeply worrying. Better the devil you know than an unknown system that might not work.

The proposals described in this paper provide a better alternative. Like FRB, these proposals restrict the ability of commercial banks to control the economy. Like FRB, these proposals support money creation by the central bank, reducing the current excessive reliance on the banking system and putting more control in the hands of the nation state (central bank and government combined). But these proposals are incremental. They require no drastic initial change.

The proposals in this paper put more tools at the disposal of the central bank. The central bank would regulate the money supply by adjusting the fiscal balance between taxes and spending. This means changes in the interest rate can be used to regulate the amount of commercial lending. So if the central bank felt that the amount of commercial lending was becoming excessive, they might increase interest rates to restrict lending, while, at the same time, authorising additional government spending so that the reduction in lending did not depress the economy.

These proposals will enable the use of a wider range of forms of control. This is likely to be more effective than a legal credit limit. In regulating a diverse, ingenious and flexible sector, like commercial lending, it is neither wise nor effective to rely solely on one form of restriction like a central credit limit.

Furthermore, once dogmatic reliance on bank lending to expand the economy and fund the government is abandoned, it will become much more possible for the government and the central bank to use a range of regulations to shape the economy in a way that is desirable. Loans for strategic productive activity (like solar power generation) could be given preferential terms; while loans for property purchase (which just bids up existing prices) could only be given at much more restrictive terms.

It is to be expected that banks and other powerful financial institutions will not welcome these proposals. Firstly, bankers are inherently conservative and keen to preserve the mystique of their profession. Many will not accept the abandonment of accepted dogma for proposals that are simply rational. Secondly, banks and financial institutions are first and foremost commercial businesses. At present, commercial lenders are given an effective monopoly on creating purchasing power. These proposals would break that monopoly by legitimising the creation of purchasing power by the state. Any commercial institution will use all the means at its disposal to hold onto a monopoly.

Exactly how opposition from financial institutions will be shown in practice, is difficult to predict. There will certainly be lobbying to delay or restrict any changes. Alternative theoretical models and criticisms of this proposal will be enthusiastically promoted. Another approach might be a booby trap or ambush. If banks lend enthusiastically at the same time as the state is creating money, then there could be inflation. Banking lobbyists will then blame the state, while minimising their own role. This sort of blame shifting was very effective after the financial crisis of 2007/8 (Blyth 2013).

**Section 7. Conclusion**

The experience of the coronavirus has changed our society in ways we do not yet know. It may well exacerbate the economic stagnation following the Global Financial Crisis of 2007/8. This is the time for a long-overdue change in our monetary system.

A modern and rational monetary policy would accept that money is created by the nation state. The central bank would continue to have responsibility for managing the money supply. But instead of managing the money supply by altering interest rates, it would adjust the money supply by instructing the government to run a deficit (to increase the money supply) or a surplus (to reduce it). This would be more rational and more effective than the current policy of adjusting commercial lending by altering interest rates.

It is beyond the scope of this paper to go into all possible future scenarios. Because these are incremental proposals, it is not necessary either. It is only necessary to take one step at a time. The first step, outlined in section 4, is to fund a fiscal stimulus through state money creation to overcome the immediate crisis following the coronavirus epidemic. Sections 5 and 6 outline a longer term strategy, but this can be implemented one step at a time. It is to be expected that an innovative monetary policy will not always work out as planned. Time, experience and creative ingenuity will be needed to work out the best balance between different measures.

These changes will make the economy less dependent on commercial lending and make it easier for the state to control of the nature and level of economic activity. These changes can be introduced gradually which will make them more politically acceptable and more likely to be implemented than alternative proposals which were also considered. This is a proposal that deserves consideration.

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1. “Money” and “Purchasing power” are used interchangeably. There is an argument that bank credit provides purchasing power but is not money. These technical discussions on the nature of money are beyond the scope of this paper. [↑](#footnote-ref-1)
2. See Real World Economic Review (2019) Issue 89 for a range of comments [↑](#footnote-ref-2)