Banking School vs Currency School
Money Creation as State Monopoly?

History of Economic Theory – Final essay
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Abstract

In the modern monetary system private banks engage simultaneously both in financial intermediation between savers and borrowers, and in money creation by the act of lending. The money supply is therefore determined endogenously according to the needs of the banking sector and the real economy. This is made possible by fractional reserve banking. However, following the recent financial crisis there are calls for full reserve banking, and thereby the separation of financial intermediation from money creation. The current paper reviews similar historical proposals along the debate between the Currency School and the Banking School (1844 British Banking Act, 1935 US Chicago Plan), and compares them with recent proposals. We find both ideological and practical arguments in the Currency School for why the state should have full control over money creation, while the Banking School remains mainly on the ground of practical arguments in defending the current system.

JEL: B12, B25, E42, E51

1 Introduction

Money creation in the modern economy is done – contrary to common misperceptions – mainly by private banks, and not by the central bank (McLeay et al., 2014). The view according to which banks are "intermediaries of loanable funds", collecting pre-existing real savings/funds from savers in the form of deposits and then lending them out to borrowers, is mistaken. In reality banks do no such thing, but instead create their own funds (deposits) by the act of granting a loan to a borrower.

As Jakab and Kumhof (2015) describe,[1] banks can create monetary purchasing power (i.e. deposits) at will, out of thin air, without the need to first divert real resources (pre-existing savings) from third parties, or without any action by the central bank. They do this by granting a loan to a borrower and crediting her deposit account with the same amount. This is rather described as *financing*, which does not involve any *intermediation* or any need to collect deposits from savers beforehand. The borrower might use this loan to invest and transfer her deposit

[1] For a non-technical summary see also Kumhof and Jakab (2016).

to her business partners who, in turn, *become* savers since they accept this deposit as means of payment. But notice, that they became savers as a *result of* the investment, rather than being the enabling *cause* of that. Hence, saving is a consequence of lending, not a cause of it; and therefore saving does not finance investment: financing does. Banks do not intermediate any real loanable-funds, they are fundamentally monetary institutions that create the main medium of exchange in the economy (deposits) to facilitate transactions.

That being said, banks are still financial intermediaries in the sense that they have expertise (compared to individual savers) in deciding which investment projects to finance and whom to grant a loan, whereby they mitigate asymmetric information problems inherent in the lending market. Some authors refer to this activity as *banking* rather than *intermediation*, but for our purposes we can settle at the starting point that banks today are both creators of money and providers of financial intermediation.

In this framework, the money supply is endogenously determined. Banks are constrained in their lending (and therefore in their creation of deposits) neither by the amount of real savings in the economy, nor (to some extent) by the availability of central bank reserves. Under fractional reserve banking banks have to hold at least a required minimum fraction of their deposits in central bank reserves, but this is usually not a binding constraint and as long as it is like that, private banks face no technical limit on their ability to lend and create deposits, except their own assessment of profitability and risk-return trade-offs.[2] Therefore, up to that point the central bank has no *direct* control over the money supply, but rather it will be a result of decisions made by private banks and investors based on their expectations about the future course of the economy.[3] Of course, a central bank can still influence monetary conditions by setting the short term interest rates, but this is a rather indirect way of affecting the money supply, the large part of which is created at the discretion of the private sector in an endogenous way.

All this is not a new realization. Ricardo (1824) was already writing about this in the 19th century, and macroeconomists during the Great Depression, like Keynes or Irving Fisher were also aware of this. Although non-mainstream schools of thought, like the Post-Keynesian tradition (see, for instance, Howells (1995) or Moore (1997)), held on to the notion of endogenous

[2] This is one reason why the "Money Multiplier" narrative, utilized in most introductory macro textbooks, is also flawed. It suggests that in a fractional reserve banking system central bank reserves are automatically "multiplied up" through lending and deposit creation to become the money supply. This assumes that the minimum reserve requirement is always binding, but in reality this is not true, and extra reserve creation by the central bank should by no means lead automatically to extra deposit creation by private banks. In other words, the money multiplier is not stable, or better, it does not exist. This was demonstrated during the Great Depression and also during recent rounds of Quantitative Easing by advanced country central banks.

[3] Moreover, in most cases monetary policy is not conducted by using targets for the monetary base, but by targeting short term interest rates. In this case, whenever the banking system as a whole would hit the minimum reserve requirement and they would still want to lend more at the going interest rate, they can just go to the discount window of the central bank who will automatically create new reserves as the need arises. This makes money supply completely endogenous, and adds an additional layer of endogeneity, also to the monetary base itself.

money, for some reason it was not part of the mainstream thinking in the second half of the 20th century. The money creator role of banks was not in the spotlight during normal times when monetary policy conducts business as usual. Probably this is why until very recently the financial sector was included in modern macro models, if at all, as an intermediary and not as a money creator. In addition, money supply was often assumed to be totally exogenous, fully controlled by the central bank. However, now this "lost wisdom" is being rediscovered. After the Great Financial Crisis of 2008-09, with many advanced economies falling into liquidity traps *á la Keynes* where monetary policy looses traction and is constrained by the Zero Lower Bound, it has become increasingly apparent that central banks fail fully to control the money supply (it is another question, beyond the scope of this essay, whether it would matter if they did). The above cited sources, which are published by the IMF and main central banks, are evidence of this trend.

Together with this "rediscovery" came opinions that the current system is not good, and calls to take money creation out of private hands and give the central bank truly full control over money supply (Wolf, 2014), in essence transforming the current setup into a full reserve banking system. These ideas are not new, either. One of the earliest of such suggestions dates back as far as Ricardo (1824) on which the 1844 Banking Act in Britain was modeled. It resurfaced in the US during the 1930s in the form of the Chicago Plan which was supported also by Fisher (1935). These ideas can be put collectively under the umbrella of the so called Currency School, which argues for the separation of the functions of money creation and financial intermediation, and wants to give the state full monopoly over the money supply. Standing against this camp is the Banking School which argues that the current system, in which private banks perform the two functions simultaneously, is either better than the alternative or that the alternative is simply not feasible.

The aim of this essay is to review this historical debate between the Currency and Banking Schools and try to identify underlying ideological or practical motives for the respective arguments. This could help in assessing the flaws and merits of current proposals.

2 Banking school vs Currency School – Historic proposals

2.1 1844 Bank Charter Act

After the Napoleonic wars Britain returned to the gold standard which was followed by a damaging deflationary period and several banking crises (Skaggs, 1999). This prompted a heated discussion about the currency and Bank of England policy which started the Currency School - Banking School controversy. The proponents of the Currency School were convinced that the severity of the credit cycle was due to the improper management of the money supply by the Bank of England. They did not just want to ensure convertibility to gold but wanted to control

the money supply "in a stabilizing manner" (Skaggs, 1999). Until then paper bank notes could be issued by the Bank of England (a private institution) and other country banks without fully backing them with gold or government debt. The potentially unchecked increase in circulating currency (overissue) could have lead to price increases, which in turn could have lead to gold outflows according to the price-specie flow mechanism. And this could endanger the very convertibility on which the gold standard relied. So in this narrative the phrase "stabilizing manner" mentioned above was not used in the sense we use it today, i.e. that countercyclical monetary policy should be used to fight *both* excessive inflation *and* deflation. It was merely meant to stabilize the amount of currency so that gold convertibility is not endangered, which they also associated with stable prices.

The proposals of the Currency School built on the work of David Ricardo. As we see in Ricardo (1824), the separation of money creation from banking was seen as the means to achieve the above goals. It ensured that under a mixed currency (consisting of both metal and paper) inflows and outflows of gold were exactly matched by an increase or decrease of the paper component – which should lead to the same price level as under a purely metallic currency.

> *"The Bank of England performs two operations of banking, which are quite distinct, and have no necessary connection with each other: it issues a paper currency as a substitute for metallic one; and it advances money in the way of a loan, to merchants and others.*
>
> *That these two operations of banking have no necessary connection, will appear obvious from this, – that they might be carried on by two separate bodies, without the slightest loss of advantage, either to the country, or to the merchants who receive accommodation from such loans."*
>
> (Ricardo, 1824, p.2)

Ricardo's plan was used as a guideline for the Bank Charter Act of 1844, which effectively achieved the separation of paper money creation from lending. This was done by requiring the 100% backing of new paper notes with either gold or government debt. That paper issues could be backed also by government debt (in addition to gold) did not endanger convertibility since government debt in turn was supposed to be backed by gold. The Act, in effect, gave the government the possibility to control the paper currency more tightly: banks could only issue additional paper notes if the government issued more debt (equivalent to increasing central bank reserves nowadays) or if there was a positive net gold inflow to the banking system. Banks could no longer fund new loans by printing paper money. Whether government debt was sufficiently backed by gold, was another question, but it was certainly decided at the government's discretion which gave more control over monetary affairs. The same reforms were implemented in the United States by the National Currency and Banking Acts of 1863 and 1864.

Banking School proponents, like Thomas Tooke, in contrast argued that no restrictions should be placed on bank note (or bank deposit) issuance. They viewed money (credit) as an endogenous variable, the quantity of which was demand determined by the "needs of trade": creating more of

it by the government (the so called "overissue") would just result in a "reflux" of unwanted paper notes to banks in exchange for deposits, gold or loan repayment.[4] Therefore, controlling money creation was not really effective in affecting prices or the credit cycle since the causation ran in the other direction in their view. Money should be left to be determined by the needs of banks and business, and the government should not intervene. To protect the value of the currency, they argued that ensuring convertibility to gold is enough and no reserve requirement is needed. In order to guarantee convertibility, the government should just keep large gold reserves to be able to satisfy temporary withdrawal surges – but it should not squeeze paper money issuance along with gold outflows since this would just disrupt credit markets (Skaggs, 1999).

As Lainá (2015) points out, the 1844 Bank Charter Act was a slight departure from the original Ricardo plan who advocated a *pure commodity standard*, i.e. one in which not only cash and central bank reserves but also bank deposits are backed with gold. In a *regular commodity standard* (like the gold standard) only base money is backed with gold, and deposit creation is less constrained. The 1844 Act did not extend to deposits, since bank notes were the dominant means of payment at the time; they were regarded as *the* money supply. Nevertheless, over time it became apparent that bank deposits can act as a substitute to bank notes in their function as money (this argument was already put forward by the Banking School). Deposit creation by banks were not constrained by the full-backing requirement of the Act, and it turned out that banks and merchants just switched to using them instead of bank notes, the supply of which was restricted. The insufficient backing of deposits then lead to bank runs whenever panic occurred: in these cases the Act had to be suspended in order to be able to pay depositors in cash (Lainá, 2015). This was vindication for the Banking School, but later the achievements of the Currency School prevailed insofar as restrictions on paper note issance were to remain, and eventually the right to print them was given exclusively to the Bank of England.

2.2 Chicago Plan

Following the Great Depression of the 1930s, the Chicago Plan was presented and discussed during Roosevelt's New Deal banking reforms in the 1930s, mainly written by Henry Simons of the University of Chicago and supported very much by Irving Fisher. In short, it advocated 100% reserve requirement, so it can be viewed as a continuation of the Currency School. However, this time the full reserve requirement did not only apply to paper currency (which was anyway put solely in the hands of the Federal Reserve) but also to deposits, which had become the main medium of exchange and the dominant component of the money supply. By imposing a 100% reserve requirement on commercial banks, they would be unable to extend credit at will

[4] This **law of reflux** was a modification to the **real bills doctrine**. The latter said that overissue is not impossible but can be avoided by extending loans only to finance real trade or working capital needs, which leads to the expansion of output. This way the higher money stock would not lead to price increases. As Schwartz (2008) points out, the real bills doctrine was flawed because, among other reasons, it confused the flow demand for loanable funds with the stock demand for circulating notes.

by financing it with newly created deposits – they would first need to acquire government-issued money (central bank reserves) which are fully controlled by the Fed.[5]

Another difference with the 19th century Currency School is that stabilizing the value of money was not proposed by pegging it to gold. The Chicago Plan was motivated by the experience of the deflation of the Great Depression and the failure of the Federal Reserve to reflate the economy. The reform would not have made much sense if the monetary authority, having just regained full control over the money supply, at the same time tied its hands to the exogenous quantity of gold reserves of the country. Instead they suggested other rules which monetary policy could follow (like price stability or a steady growth of money supply).

Under the Chicago Plan proposal there was need neither for a central bank discount window, nor for deposit insurance, since the full backing feature ensures the security of deposits and also the ability of banks to settle payments. Bank runs would be completely eliminated. If banks were allowed to borrow additional central bank reserves at will, they could create additional deposits by increasing lending which is exactly what the proposal wanted to prevent. Central bank reserves were to become exogenous, fully controlled by the Federal Reserve through open market operations. The separation of money (deposit) creation and lending (financial intermediation) was made very explicit in the Chicago Plan by delegating the two functions to two different institutions: deposit banks were to provide only payment services without the ability to make loans (Lainá, 2015).

Irving Fisher, who was a huge supporter of the full reserve idea, put it like this in his book, 100% money:

> *"The revival now of this ancient 100% system, with the readjustments demanded by modern conditions, would effectually restrain the monetary inflation and deflation incident to our present system; that is, would actually stop the* ***irresponsible creation and destruction of circulating medium by our thousands of commercial banks which now act like so many private mints.*** *[...]*
>
> *The essence of the 100% plan is to make money independent of loans; that is, to* ***divorce the process of creating and destroying money from the business of banking.*** *A purely incidental result would be to make banking safer and more profitable; but by far the most important result would be the prevention of great booms and depressions by ending the chronic inflations and deflations which have ever been the curse of mankind and which have sprung largely from banking."*
>
> (Fisher, 1935, Preface)

Fisher also realized – much like the "reflux" argument in the Banking School – that the connection

[5] Or if some depositors choose to move their liquid deposit claims into a less liquid savings account, the reserve requirement becomes non-binding allowing for additional deposit creation by lending. This, in effect, means that if the government does not issue any more reserves, additional lending can only be funded by first collecting savings and not by creating more deposits – rendering the banks to the sole financial intermediary role which many (falsly) attribute to them today.

between money creation and lending works in reverse as well: merely the act of paying back a loan at the expense of a deposit balance destroys the money supply as the balance sheet of the banking system shrinks. He wanted to disconnect these two.

> *"If all bank loans were paid, no one would have a bank deposit, and there would not be a dollar of currency or coin in circulation.*
>
> *This is a staggering thought. We are completely dependent on the commercial banks.* ***Someone has to borrow every dollar we have in circulation, cash or credit. If the banks create ample synthetic money, we are prosperous; if not, we starve.*** *We are absolutely without a permanent monetary system."*
>
> (Fisher, 1935, Preface)

It seems clear from these quotes that the primary motivation of Fisher for this reform was a better management of the credit (and thereby the business) cycle. And since money creation would be detached from lending, Fisher predicted that the economy could also see a dramatic reduction of private debt. While it seems obvious how the new restrictions would prevent excessive deposit (and debt) creation by the commercial banks, it is less clear how full reserve banking would have prevented everyone from repaying their loans with their deposits. This would have just pushed the reserve ratio *above* the required 100% level which would have been allowed under the proposal. In any case, the Chicago Plan was not implemented in reality, as the political will behind it was eroded by opposition from the banking industry.

2.3 Current proposals for full reserve banking

Following the Great Recession of 2008-09 the ideas of the Currency School are staging a comeback. An increasing number of economists and policymakers (also from the mainstream) are flirting with the possibility of a full reserve banking system, which would reduce the procyclicality of the current credit cycle, would give firmer monetary control to central banks and would therefore make such large credit crunches both more unlikely and easier to handle. Researchers of the IMF, Kumhof and Benes (2012) are proposing a revival of the Chicago Plan.

> *"Because additional bank deposits can only be created through additional bank loans, sudden changes in the willingness of banks to extend credit must therefore not only lead to credit booms or busts, but also to an instant excess or shortage of money, and therefore of nominal aggregate demand. By contrast, under the Chicago Plan the quantity of money and the quantity of credit would become completely independent of each other. This would enable policy to control these two aggregates independently and therefore more effectively."*
>
> (Kumhof and Benes, 2012, p.5)

They calibrate a DSGE model which supports all of Fisher's claims about the advantages of full reserve banking: 1) less procyclical credit cycles and enhanced ability to control them, 2) complete elimination of bank runs, 3) reduction in government and 4) private debt. The reduction in debt levels is mainly due to a large one-off windfall in seigniorage revenue of the

state which is generated by creating the extra reserves needed to back existing deposits. This revenue is then used to buy and forgive certain private debts and to offset government debt previously held by banks. In addition, the authors find that this monetary reform generates longer-term output gains through lower real interest rates (due to smaller debt levels) and lower distortionary taxation (due to higher seigniorage income of the state). Moreover, steady state inflation can drop to zero since the separation of money and the credit functions of the banking system allows the government to effectively control the money supply, the quantity of bank lending and the price of government credit to banks. According to the authors, one critical implication is that in this monetary environment liquidity traps cannot exist because the policymaker can directly increase the quantity in agents' hands, and because interest on treasury credit can become negative without any problem as it is not an opportunity cost of holding money any more (treasury credit is only accessible by banks).

Lainá (2015) lists several other proposals like that debated by the UK Parliament, the report commissioned by Iceland's prime minister or Switzerland's Vollgeld-Initiative. Wolf (2014) also describes many contemporary suggestions, and promotes the abolishment of private money creation on the grounds that it would lead to a more stable financial system.

> *"Banking is therefore not a normal market activity, because it provides two linked public goods: money and the payments network. On one side of banks' balance sheets lie risky assets; on the other lie liabilities the public thinks safe. This is why central banks act as lenders of last resort and governments provide deposit insurance and equity injections. It is also why banking is heavily regulated. Yet credit cycles are still hugely destabilising. [...]*
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> *Our financial system is so unstable because the state first allowed it to create almost all the money in the economy and was then forced to insure it when performing that function. This is a giant hole at the heart of our market economies. It could be closed by separating the provision of money, rightly a function of the state, from the provision of finance, a function of the private sector."*
>
> Wolf (2014)

The suggestion of Wolf (2014) (which builds heavily on Jackson and Dyson (2012)) would create two kinds of bank accounts: transaction and investment accounts. Only the former could be used as a means of payment, all of it would be created by the state meaning that a 100% reserve requirement would apply to it, basically giving the central bank full control over this form of money in its pursuit of promoting non-inflationary growth. Investment accounts, on the other hand, would be the ones funding loans. No reserve requirement would apply to them and their holders (savers) would be vulnerable to losses, but banks would still be stopped from creating such accounts out of thin air by regulation: this way they could only lend money which was previously invested by savers, making banks the pure financial intermediary institutions that many wrongly believe they now are. To prevent such investment accounts to start functioning as money, their acceptance as means of payment must be forbidden.

To put the aim of these proposals a bit differently, they want to replace debt-based private money with debt-free government-money. A substantial part of outstanding debt was created for the sole purpose of lending into existence an adequate amount of monetary purchasing power (e.g. by mortgaging already existing physical assets) – now there would no longer be any need for this type of credit since the money supply can easily be created debt-free by the government. The other part, the "socially useful" credit that finances real investment into *new* physical assets, would continue to exist, and the financial intermediary function of the banking system would still facilitate the efficient allocation of savings/capital to their most productive uses as well as to provide intertemporal consumption smoothing to households.

Now, it is apparent from the above discussion and also from the example of the 1844 Bank Charter Act that any reform, which imposes full reserve requirement to a certain form of money, must prevent the emergence of near monies which are exempt from the requirement. The restrictions on paper note issuance in 1844 just lead to the emergence of bank deposits as the main medium of exchange, and similarly, full reserve backing of deposits might prompt private agents to start using other bank liabilities as money. Henry Simons realized this in the 1930s and Kumhof and Benes (2012) also propose some remedies to solve this problem.

> *"...but the main point is likely to be lost if we fail to recognize that savings-deposits, treasury certificates, and even commercial paper are almost as close to demand deposits as are demand deposits to legal-tender currency. The whole problem which we now associate with commercial banking might easily reappear in other forms of financial arrangements. [...] Little would be gained by putting demand deposit banking on a 100% basis, if that change were accompanied by increasing disposition to hold, and increasing facilities for holding, liquid 'cash' reserves in the form of time deposits. [...] The expansion of time deposits might be just as inflationary as expansion of demand deposits – and their contraction just as deflationary; and the problem of runs would still be with us."*
>
> (Goodhart and Jensen, 2015, p.24) cites Henry Simons, 1934

> *"...the banking system's credit assets must be funded by non-monetary liabilities that are not subject to runs. This means that policy* ***needs to ensure that such liabilities cannot become near-monies.*** *[...] The easiest is to require that banks fund all of their credit assets with a combination of equity and loans from the government treasury, and completely without private debt instruments. [...] By itself this would mean that there is no lending at all between private agents. However, this can be insufficient when private agents exhibit highly heterogeneous initial debt levels. [...] One* [other solution] *is debt-based investment trusts that are* ***true intermediaries, in that the trust can only lend government-issued money to net borrowers after net savers have first deposited these funds in exchange for debt instruments issued by the trust.*** *But there is a risk that these debt instruments could themselves become near-monies unless there are strict and effective regulations. This risk would be eliminated under the remaining alternative, investment trusts that are funded exclusively by net savers' equity investments, with the funds lent to net borrowers."*
>
> (Kumhof and Benes, 2012, p.5)

2.4 Banking School arguments

Representing the other side of the debate (which we can regard as heirs to the British Banking School) Goodhart and Jensen (2015) points out that the above proposed remedies to the vulnerabilities of full reserve banking plans are not satisfactory. For them to work, there should be a clear distinction between "money" and "near money", which is not true in reality. What private agents regard as money can evolve flexibly over time as was demonstrated by the switch to bank deposits from paper notes after the 1844 reform. Strict regulation like prohibition of issuing such near-money bank liabilities or forbidding to use them for settling payments is unlikely to succeed for long. "If authorities try to impose constraints on the private sector's access to liquidity, it will attempt to innovate its way around that" (p.22).

> *"Suppose that narrow, FRB, banks were established, while other (risky) banks continued to be allowed to offer seven-day time deposits, as now. Banks would still be able to make loans by writing up both sides of their balance sheet, only in the form of short-dated time deposits rather than demand (sight) deposits. Borrowers would have to wait a week before accessing their funds, but that is a short time for most purposes."*
>
> (Goodhart and Jensen, 2015, p.23)

Goodhart and Jensen (2015) also argues that this system would only *increase* the instability and procyclicality of the financial system since people would just hold the less liquid, risky investment accounts (offering higher returns) which now are not protected either by full reserve backing or by deposit insurance. Therefore these bank liabilities would be subject to the same runs as checking deposits, and could force the banking system into quick liquidation of assets and sharp deleveraging.

But even if we assumed that the state could somehow establish full control over the money supply and make a clear distinction with near-monies, it is likely that this "reduced" banking system could not meet the short-term working capital needs of industry, as all bank lending would have to be funded with less liquid, longer-maturity liabilities which are therefore also more expensive. Therefore, access to both borrowing and liquid assets would be impaired unless the government can flexibly respond by providing more money according to the "needs of trade" – which is unlikely. This might be a small price to pay for financial stability, but maybe it would not succeed at all (Goodhart and Jensen, 2015).

As mentioned before, Banking School proponents are in line with the Post Keynesian tradition in viewing the determination of the money supply as largely endogenous, which cannot be controlled fully. According to them, various monetary aggregates should respond "flexibly to the needs of trade". Credit creation is the one which connects money with the real economy, but it is difficult to control fully and directly. That said, they admit that in the current system there is an inherent problem as borrowers and banks behave procyclically. The original solution proposed to this issue was the *real bills doctrine*, i.e. to restrict/incentivize banks to lend only to finance real trade and working capital needs, so that credit does not extend beyond real economic

growth (as opposed to lending to finance speculative investments into assets). Unfortunately, the real bills doctrine was wrong since real output can exceed its "sustainable" level and this overheating would generate inflation. In other words, even without "credit going beyond real growth", it can go beyond *sustainable* real growth. The best advice the Banking School has to offer is to manage banks better on the micro level and improve macroprudential regulation by the authorities of the whole banking system, in order to mitigate systemic risk.

3 Role of the state in money creation

3.1 Free market forces or government control?

After going through all the details of these proposals, the question naturally arises: which of the two approaches is correct? To simplify and sharpen the conflict: is it the state or private markets who should manage money? The answer has many dimensions, the first of which is the most obvious, i.e. deciding between the two should be based on which one does a better job in terms of economic outcomes or social welfare. In light of the above discussion, this would include looking at performance in stabilizing credit cycles, delivering stable inflation and *flexibly* providing sufficient credit for investment as well as liquidity to finance transactions and thereby supporting *sustainable* real growth. The Currency School argues that it is their plan which can achieve this by making credit cycles less procyclical, while the Banking School argues that government interference would just make things worse and in any case is doomed to fail, since markets will just innovate their way out of restrictions. Free market supporters usually also point out that the state cannot react as flexibly to continuously changing economic conditions (to the "needs of trade" in our context), as decentralized private actors can who, through the mechanisms of the *invisible hand*, function most efficiently under a *laissez faire* regime. In contrast, private management of money might create negative externalities which call for government intervention.[6]

What is surprising, however, is that otherwise free market enthusiasts like those from the University of Chicago, including Milton Friedman or Henry Simons, or those in the Austrian School like Friedrich Hayek, all supported the Currency School (with slightly different emphasis). While they were indeed proponents of *laissez faire* in industry, the came down firmly for state monopoly in money creation and against leaving it to private banks who are driven by market incentives. Their motivations were different, though. While Simons and Coauthors (1933) wanted to assert

[6] Deciding all the above is not any easy task and the question is still unsettled today. Historically, however, it seems that private money creation started relatively late in history which is also when financial crises started to become frequent. Earlier monarchs usually handled monetary affairs responsibly, with few exceptions. Even the German hyperinflation of 1923 was due to private control of the Reichsbank. And the obvious cases where government-issued currencies collapsed had more to do with corrupt officials and bad management than with the inherent inability of a government-controlled institutional setup to manage money well (Kumhof and Benes, 2012).

full government control over the money supply in order to better manage the credit cycle, Hayek (1937) supported full reserve banking in order to preserve the value of the currency. Similarly to Ricardo (1824) he proposed a pure gold standard, where deposits should be fully backed not with government debt, but with gold. In Hayek's version, the government would have no control over monetary policy, since its hands would be tied to gold. So, as Lainá (2015) puts it, although banks would be free from any government control, they could still not issue money freely. Friedman (1960) supported the Chicago Plan, and similarly to Hayek, he suggested eliminating the private creation of money *not* in order to be able to actively manage the money supply, but rather in order to keep its growth under control. Therefore, he also wanted the government to tie its own hands, but instead of by pegging to gold, rather by committing to fixed rules in terms of money supply growth (k-percent rule) – see also Friedman (1967). Beyond this he wanted to keep the state from interfering with borrowing and lending relationships, and leave the rest of banking unregulated.

By contrast, it is mostly those from the Keynesian tradition, usually advocating the need for active government management of aggregate demand by either monetary or fiscal policy, who were now on the side of the Banking School, rejecting total government control over the money supply and leaving it rather in the hands of private market participants.

Perhaps this apparent contradiction, i.e. that free market enthusiasts support full government control of money creation while Keynesians are for keeping it in the hands of private market actors, can be mitigated somewhat (though not fully) by considering the rules versus discretion dimension. Many Currency School advocates wanted state monopoly over money but at the same time wanted to constrain the government by rules (by either the gold standard, or monetary-growth targets or price level targets in the case of Fisher). In this narrative, the proposed monetary reform by the Currency School is not active government *intervention*, but rather much needed government *regulation*, which just ensures the smooth functioning of financial markets, once it is left on its own. This is of course not true for those, who view full reserve banking as a way of making monetary policy omnipotent, providing it the means to escape liquidity traps, like Kumhof and Benes (2012). Banking School representatives on the other hand, are more associated with proposing discretion in monetary policy, citing that no monetary rule can account for all eventualities (just look at the need for unconventional policies in the recent crisis).

3.2 The privilege of money creation

Deciding whether based on practical arguments, i.e. in terms of economic outcomes, it is government-controlled or privately issued money that performs better has no obvious answer, as we have seen above. However, deciding it based on "ideological" arguments, or "fairness" grounds offers a more straightforward direction which favors the Currency School. Issuing the medium of exchange results in *seigniorage*, a profit coming from the difference between the purchasing power of the new money and the cost of creating it. Whoever has the privilege of money

creation, commands this profit which can be seen as a pure rent.

In this analysis it is imperative to distinguish between debt-based private money and debt-free government money. Privately created money is necessarily debt-based (a loan has to be created together with the deposit), but at the same time it is a liability to the issuer bank. The seigniorage in this case is *part* of the interest income the bank earns on the difference between lending rates and deposit rates. And this rent is being accummulated in the hands of a few private business, who are able to create money, which Kumhof and Benes (2012) call an "extraordinary privilege":

> *"...money and credit would become detached and completely independent of each other. [... B]anks would no longer be able to generate their own funding, deposits, in the act of lending,* ***an extraordinary privilege that is not enjoyed by any other type of business.*** *Rather banks would become what many erroneously believe them to be today, pure intermediaries that depend on obtaining outside funding before being able to lend."*
>
> (Kumhof and Benes, 2012, p.5)

The particular part of the interest income which can be regarded as seigniorage is generated on those particular loans which were created solely in order to satisfy the economy's demand for monetary purchasing power (i.e. not those loans which finance real investments). Therefore this income has nothing to do with the payment of the banker for bearing the risk of its loan book or for providing financial intermediation services. In any case these loans are usually risk-free, being collateralized with an existing physical asset, like mortgage. According to Kumhof and Benes (2012), another consequence of the debt-based feature of private money is that high and destabilizing debt levels become necessary just in order to create sufficient money supply in the economy. This carries the potential for defaults which in turn lead to large wealth transfers across agents and wealth concentration in the hands of bankers.

> *"Private money has to be borrowed into existence at a positive interest rate, while the holders of that money, due to the non-pecuniary benefits of its liquidity, are content to receive no or very low interest. Therefore, while part of the interest difference between lending rates and rates on money is due to a lending risk premium, another large part is due to the benefits of the liquidity services of money.* ***This difference is privately appropriated by the small group that owns the privilege to privately create money.*** *This is a privilege that, due to its enormous benefits, is often originally acquired as a result of intense rent-seeking behavior. [...] [Debt-based private money creation] repeatedly led to systemic borrower defaults, forfeiture of collateral, and therefore the* ***concentration of wealth in the hands of lenders."***
>
> (Kumhof and Benes, 2012, p.13)

In contrast, the government can create money in a debt-free manner. One might argue that government-money (e.g. central bank reserves or currency in circulation) are liabilities of the government, and therefore *debt*. But under a fiat money regime this is a special kind of liability, which is not redeemable to anything but itself (which would not be the case under the gold

standard). Therefore many argue that it is best viewed as equity for the government: by creating money, the state created monetary purchasing power out of nothing without owing anything else to anybody in return. In this narrative the whole stock of newly created money is pure profit, seigniorage which adds to the equity of the consolidated government, which then can be spent on fiscal transfers or tax cuts.[7] In any case, irrespective of how we classify government-created money, it would surely be debt-free in the sense that it does not require increasing *private* debt levels, and is therefore free from the adverse and destabilizing consequences described above. In addition, the resulting seigniorage would be public and not a quasi-rent concentrated in the hands of a few privileged banker.

If we believe that the benefits resulting from the right to issue money should be shared equally across society, then the Currency School proposal surely seems "fairer". But fairness also has a lot to do with who *invented* money. In a more direct analogue, taxing away a large portion of the wealth of the rich and redistributing it among the poor might be regarded as "fair" from an equality perspective, but can be seen as gravely unfair to those who accumulated this wealth not by luck but by their hard work. So we should establish whether private banks and markets "worked hard" for their privilege to issue money in the sense that they invented it, or was it just handed to them due to a historical coincidence? To answer this we must look at the origins of money which will lead to the *nature* of money.

3.3 The nature of money

The commodity theory of money can be an argument for the private issuance and control of money. This can be traced to Adam Smith or Karl Menger who hold that money arose in private trading transactions to overcome the double coincidence of wants problem of barter economies. In this narrative money is a commodity, and as it came into being by and due to the needs of private market actors, the state has no business in taking money creation out of the hands of free markets - similarly to any other commodity markets. In contrast, if money and the payments system in general is viewed as a public good, which would otherwise not be created by anyone, then the state can solve this coordination problem by issuing money, the value of which derives from government fiat, i.e. the medium of exchange nature of it is established by law.

> *"Banking scholars demand that the government does not meddle in monetary and banking affairs, for money is seen as a means of exchange which is spontaneously – or market-*

[7] This is related to recent debates among policy makers whether it would be a bad thing for a central bank to operate with negative equity. Helicopter money could be implemented by central banks crediting the account of the government with newly created money without buying any claims on the government in return. Under current accounting rules this would reduce their equity potentially to negative territory, but they would still not be insolvent in the usual sense, since their liabilities are to be paid by themselves. As the government uses the proceeds to pay for fiscal deficits, on the consolidated government level this would just mean that fiscal spending is financed by printing money, while the increasing equity of the private sector is mirrored by the negative equity of the government, but the latter never has to be repaid.

> *endogenously, as it is called – created among traders. In the process, money itself becomes a commodity. The banking school's idea of money, and what is known today as the commodity theory of money, was later expounded in more detail by Menger in 1871 and the subsequent Austrian School. A commodity should be left to 'the markets'."* Huber (n.d.)

The commodity money vs fiat money narratives might seem to have followed each other over the course of history (the commodity view especially lends itself to metallic based monies, while post-gold standard monetary regimes are regarded as fiat money). However, as documented in Zarlenga (2002), even in the historical regimes based on precious metals, the relatively high value of those metals was precisely due to their role as money which derived from government fiat, e.g. that it was accepted for tax payments, and not from their "intrinsic" qualities. In addition, there is little evidence that money emerged as a solution to barter, since barter was virtually nonexistent already in primitive and ancient societies. On the other hand, there is plenty of evidence that early credit systems and later monetary systems had their origins in the needs of the state (Zarlenga, 2002).

In fact, it seems that "it was the English Free Coinage Act of 1666, which [first] placed control of the money supply into private hands, and the founding of the privately controlled Bank of England in 1694, that first saw a major sovereign relinquishing monetary control, not only to the central bank but also to the private banking interests behind it (Kumhof and Benes, 2012, p.14). Based on this, private money creation is a relatively fresh phenomenon and the commodity view of money has little basis according to history. Therefore the nature of money has more to do with government fiat.

While establishing that it was most likely the state which created money helps in determining the true government fiat nature of money – and based on this we might say there is nothing "unfair" in taking money creation out of the hands of private banks – it does not necessarily mean that the state is a better manager of money than the private sector. As discussed above, this debate is not decided.

4 Concluding remarks

In this essay we reviewed the historical controversy between the Currency and Banking Schools. The debate revolves around the main question of whether money creation should be taken out of private hands and given exclusively to the government. As a means to achieve this, the Currency School proposes a full reserve banking system which would manage to unmount the money creation activity from the financial intermediary function of modern banking, which currently does both things simultaneously. They argue that this would result in a much more stable financial system and more effective management of the business cycle.

In summary, Banking School proponents say that although the Currency School proposals can be very seductive in their elegant simplicity, the reality is much messier than that. Separating

money creation and financial intermediation, putting the former into the hands of the state with a tightly managed, protected core payments/monetary system, and leaving the latter to free market competition between unregulated private banks and without government interference or any safety net – this seems like a neat idea, which is unlikely to be feasible.

This controversy bears every element of the ever-existing debate between free market enthusiasts and those believing in a larger role for government. Who is better positioned to manage a particular activity or carry out a certain economic function? And apart from that, which solution is fairer for society in normative terms? I believe, we do not yet have a definitive answer to these questions. However, in an interesting twist, it turns out that it is precisely those otherwise advocating free markets who stand for state monopoly and full government control in money creation, while usual proponents of active government policy would rather leave money creation in private hands. This twist might also be a sign of the very special role which money plays in our inherently monetary economies.

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