

## **If banks do not have a 100% capital ratio, they are subsidised.**

Ralph Musgrave.

### **Abstract.**

If government so much as hints that it will rescue banks in trouble, that constitutes a subsidy of banks, and subsidies misallocate resources.

Alternatively, if government makes it clear it will never rescue banks, then all of those who fund banks, regardless of whether they are called depositors, bondholders or shareholders, in effect become shareholders. That is shareholder as in “someone who at worst stands to lose everything”.

Since subsidies misallocate resources, i.e. reduce GDP, it follows that the GDP maximising option is the latter second one, that is a system where banks are funded just by shareholders or people who are in effect shareholders. And that equals or leads inevitably to full reserve banking.

One apparent escape from the latter conclusion for conventional banking might seem to be a system in which banks retain depositors in the conventional sense of the word (i.e. people who are guaranteed all their money back) with that guarantee made good by some sort of self-funding insurance like FDIC. However there are several problems there. One is that FDIC type insurance involves moral hazard in the form of the temptation take excessive risks, keep the profit when all goes well, and have the insurer pay when the risks go wrong. That is a very real cost. Indeed, that sort of moral hazard is widely seen as one of the main causes of the recent crisis, the real costs of which were astronomic. Thus FDIC type insurance costs more than

self-insurance, which is what shareholders do. Thus the conclusion is that the GDP maximising arrangement for banks is full reserve.

Also the latter point about insurance means that a more accurate title for this paper would be “If banks do not have a 100% capital ratio, they are subsidised, or we have a bank system that does not maximise GDP”. However, that sentence is probably too long for a title.

The UK’s Independent Commission on Banking tried to criticise full reserve. Their arguments are examined and shown to be badly flawed.

Section 1 sets out the basic argument. Section 2 (p.10) sets out the arguments against self-funding insurance for banks. Section 3 (p.15) considers the arguments against full reserve banking put by the Independent Commission on Banking.

The ideas in this paper are ADDITIONAL TO the ideas in Musgrave (2014) rather than a MODIFICATION of the later ideas. I am grateful to Vincent Richardson for reading the draft of this paper. All errors are my responsibility.

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## **Section 1: the basic argument.**

The word deposit refers here to money which is lodged at a bank or similar entity and which that entity claims is totally safe. But if that bank then lends on deposited money, that is plain incompatible with the promise that the money is safe, and for the simple reason that there is no such thing as a totally safe set of loans or investments. (The word “bank” is used here in reference to COMMERCIAL banks rather than central banks. Central banks are referred to with the word “central”.)

As Levitin (2015) put it in the first sentence of his abstract, “Banking is based on two fundamentally irreconcilable functions: safekeeping of deposits and relending of deposits.”

The solution adopted to that problem since the 1930s has been to have government, i.e. taxpayers, stand behind banks. But that amounts to a subsidy of banks, or if you like, a subsidy of “lending on deposit money”. However, it is widely accepted in economics that subsidies misallocate resources (unless there is a good social justification for a subsidy), so the latter subsidised arrangement for banks does not maximise GDP. Governments do not stand behind garages or restaurants, and there is no obvious reason why governments should stand behind money lenders.

Alternatively, if government makes it clear it will never rescue failing banks, then all of those who fund banks, including depositors, in effect become shareholders, or shareholders of a sort. They would actually become very similar to preference shareholders: that is, they would be next in line for a hair-

cut after ordinary shareholders had been wiped out, which is what happened to some Russian depositors at Cypriot banks in 2012-13.

In addition of course, ordinary Cypriots with more than €100k deposited also lost out. And indeed anyone in the EU with more than €100k deposited stands to lose out and is thus to some extent a preference shareholder.

Moreover, for those who object to classifying depositors and bondholders as shareholders, that objection is not of any great importance. The IMPORTANT point is that funding banks via deposits is cheaper than funding them via shares precisely because of the above state backing for depositors. That is, semantic questions as to exactly what a depositor is and what a shareholder is are unimportant: the important question is the COST of different methods of funding banks / money lenders.

Thus if some readers want to use the phrase “depositors who stand to lose everything like those Russian depositors” instead of “shareholder”, that is fine by the author. But the fact is that those Russian type depositors are little different to preference shareholders.

### **The conclusion so far.**

The conclusion so far is that either a bank is subsidised (as per current arrangements) or it is funded just by equity. And since subsidies do not make economic sense, the conclusion is that money lending should be funded just by equity, while money which bank customers want to be totally safe should be just that: the money should be lodged in a totally safe manner, or as near a totally safe manner as is possible in this world.

Probably the nearest thing to total safety in the real world is lodging money at the central bank. Thought another near totally safe option (suggested by Friedman (1960)), and which would enable those seeking near total safety to earn a little interest, is to invest “safe” money in short term government debt. (See Friedman (1960, Ch3) under the heading “Why interest should be paid on reserves”).

Clearly the central bank and government debt are not particularly safe in politically unstable countries. However it is assumed here that we are dealing with politically stable countries.

That arrangement, where money to be loaned on or invested is funded just by equity, while money which the owner wants to be totally safe is invested just in government debt or lodged at the central bank is often referred to as “full reserve” banking. Friedman called it “100% reserve” banking and advocated the idea in Friedman (1948) as well as in Friedman (1960). Other advocates of full reserve banking include Fisher (1936), Kotlikoff (2012), Cochrane (2013) and Dyson (2011 & 2012).

### **Do banks lend on deposits?**

It has become fashionable recently, particularly amongst advocates of bank and monetary reform, to claim that banks do not lend on deposits: rather they create new money out of thin air and lend it out. And that might seem to undermine the argument in the above few paragraphs which rely on the idea that banks do indeed lend on deposits.

In fact banks cannot just create and lend out money willy nilly without acquiring money from savers (i.e. depositors, bondholders, etc). The reasons

for that restriction on money creation are different in the case of an INDIVIDUAL bank as compared to the bank industry as a whole. Individual banks are considered first.

If an individual bank simply creates and lends out money willy nilly, it runs out of reserves, no matter how credit-worthy the borrowers might be. Thus an individual bank has to get the bulk of the money it lends out from depositors, shareholders, bondholders etc.

As to the bank industry AS A WHOLE if it creates and lends out money, that money is SPENT which is stimulatory or inflationary. And assuming the economy is at or near capacity, that extra spending is not possible unless there is a compensating cut in demand, e.g. in the form of someone ABSTAINING from spending, and saving the relevant money.

In fact a very rough idea of the ratio of “loaned on” money relative to the amount of “thin air” money can be gleaned from considering an economy where there is no growth and no inflation, and all else is constant and in equilibrium. In that scenario there would be no reason for the amount of bank created money to rise or fall relative to other assets. That is, the amount of that type of money would be constant: put another way, apart from the basic stock of that type of money, banks would not create money at all. Thus all loans would be funded by savers.

Turning now to a more realistic scenario, that is where there is say 2% inflation and 2% growth, and sticking to the assumption that the amount of bank created money the private sector wants is constant relative to other assets, the amount of bank created money would need to expand by 2%pa to counter the effect of inflation, plus another 2% would be needed to enable the stock of

bank created money (in real terms) to expand by enough to keep abreast of the rise in value of other assets (in real terms).

The conclusion is that typically (and this is a very rough back of the envelope calculation), 4% of loans are funded each year from new money, and 96% from existing deposits which are loaned on.

Thus the assumption here, namely that most loans are funded by existing savers is not unreasonable.

### **Is there a place for bonds?**

Before starting on section 2 of this paper (p.10), bonds are considered. This is arguably a diversion from the main argument. So for readers not interested in the details, the conclusion is that having money lenders funded by bonds is acceptable under full reserve, as long as the bonds can be bailed in, and as long as the maturity of the bonds is not too short (which would turn them into a form of money).

Indeed one advocate of full reserve, Dyson (2012, 6.3), advocates what amounts to bonds with a minimum maturity, though he calls them “investment accounts”. In contrast, Dyson’s bonds / investment accounts cannot be bailed in. It is argued below that bonds should all be liable to be bailed in.

Anyway, the details behind the latter conclusion on bonds are as follows.

As pointed out above, assuming there is no state backing for banks, various bank funders or creditors are in effect shareholders, even if they are not actually called shareholders: that’s shareholder (to repeat) as in “someone who at worst stands to lose everything”.

Bonds fall into the latter “lose everything” category. As regards bonds which cannot be bailed in, and in the event of failure by a bank to repay bondholders on maturity of their bonds, the bank is tipped into insolvency proceedings at the end of which bondholders get less than 100c in the dollar.

As for bonds which CAN BE bailed in, failure to repay bondholders results in the value of those bonds being written down, while the bank soldiers on.

The logic behind “non bail in” bonds is a mystery. Reason is that assuming the value of the bonds is based just on the value of the assets of the bank (rather than being based to a greater or lesser extent on the bank’s PROSPECTS), then the number of cents in the dollar that bondholders get in both the case of bail in and non bail in bonds will be much the same (though that depends on the exact terms of the bail in).

Thus it is quite likely that the only effect of funding a bank via non bail in rather than bail in bonds is that when a bank is in trouble, it may close down rather than soldier on. Why that should be regarded as beneficial is not clear. It will thus be assumed that bonds are allowed under full reserve, but that they must be bail in bonds.

### **Bond maturities.**

Apart from “bail-in-ability”, another crucial element in bonds (both under full reserve and under existing regulations) is that their maturity should not be too short. Reason is as follows.

If a bank that was funded to a significant extent by ultra short term bail in bonds those bonds would become a form of money. It could be argued that



“moneyness” wouldn’t matter because with the bonds being “bail in”, a bank in trouble would be able to refuse to repay bond holders on the due date, and bail them in instead.

However there is actually a potential problem there, as follows. After several years or decades without a major bank failure, those short term bonds might come to be regarded as a totally safe form of money. If there was then a repetition of the recent crisis or similar, holders of that sort of money might start crying wolf with a view to being bailed out by taxpayers.

It would thus probably be desirable to bar bonds with a maturity of less than roughly two or three months (which in effect is what Dyson (2012) advocates).

Cochrane (2013) made the latter point using different language. He said “Clearly, overnight debt is the problem. The solution is just as clear: Don't let financial institutions issue run-prone liabilities.” Saver / investors with cash in an instant access account or with short term non bail in bonds can run and cause insolvency. In contrast, it doesn’t make much sense for those with shares or bail in bonds to run.

## Section 2. Self-funded insurance for banks.

The conclusion was reached above that either banks are subsidised or they have capital ratios of 100%, which in turn equals or leads to full reserve.

There is however a possible escape from that “check mate” position for conventional banking, which is to have banks funded partly by deposits and/or non bail in bonds, but to deal with the inevitable risk by some sort of FDIC commercially viable insurance system. And as long as that is genuinely commercially viable or self-funding, then no subsidy is involved.

As to preventing a collapse of the entire bank system, that can be done via lender of last resort (LLR). As long as LLR loans are at Walter Bagehot’s “penalty rates”, then that on the face of it does not amount to a subsidy.

Unfortunately, the latter “FDIC / LLR” argument has numerous problems, as follows.

1. FDIC/LLR type insurance involves moral hazard. That is, it involves the temptation to run excessive risks in the knowledge that if the risk does not pay off, the insurer will foot the bill. Indeed, that problem partially explained the irresponsible lending to Greece and other Eurozone periphery countries prior to 2007/8. Plus that moral hazard problem is credited with being at the root of the crisis in the US.

To be more exact, there was no EXPLICIT state organised insurance for large banks in the US, but it was commonly assumed that government would not let a large bank fail or at least would not let a SERIES of large banks fail. That lends support to the basic point in this paper, which is that the choice is between the

state backing banks and, alternatively, the state very explicitly saying it does not stand behind banks. I.e. weazel words will not do: that is, if the state says it disapproves of state backing for banks, but drops hints that it might rescue banks, that is ipso facto a subsidy of banks.

Thus funding banks to a greater to lesser extent via deposits insured by some sort of FDIC type insurance is inherently more expensive than having banks funded by equity.

2. While LLR loans, as just stated, are supposed to be at penalty rates, in practice they aren't. Exactly what constitutes penalty rates is debatable of course. But as a rough guide, Warren Buffet loaned \$5bn to Goldman Sachs at 10% at the height of the recent crisis. And Buffet, successful businessman that he is, presumably obtained first class collateral in exchange for that loan. That was a loan between two private sector entities, so presumably 10% was a realistic "penalty rate". In contrast, the \$13tr or so loaned by the Fed to various banks was at nowhere near that rate, plus some of the collateral was nearer junk than first class.

Of course it can be argued that that junk collateral was only junk because of the crisis, and that given the \$13trillion of Fed loans to banks, the value of the collateral rose. Plus in the event, all banks rescued by the Fed repaid their loans. But why should public money even be put at risk? If there's a slump in the used car trade, the Fed doesn't buy acres of used cars. Moreover, the UK government certainly has not recouped the money it poured into banks at the height of the crisis (Hawkes, 2015).

As for deposit insurance, in the UK, that has been funded till recently by taxpayers, not by commercial banks.

All in all, the idea that state backing for commercial banks is guaranteed to be on a strictly commercial basis is very debatable. Come a crisis and in the heat of the moment, the temptation is to throw near limitless amounts of public money at the problem and at sweetheart rates of interest. And the AMOUNT involved in the recent crisis (about \$13trillion) was about three quarters of US GDP. Thus we are talking a HUGE subsidy there.

3. It is not clear why money lenders should be saved with public money when they're in difficulty and not other industries.

An apparent reason to save banks but not other types of corporation is that if banks collapse, the consequences are more serious than if some other industry suffers a serious setback.

That however is a circular argument: banks / money lenders collapse **precisly** **because** they are funded by or lodge deposits. That is, if banks are funded wholly or largely by equity, it's near impossible for them to collapse.

4. The idea that government or bank regulators are actually capable of working out the likelihood of bank failures is a joke in view of the 2007/8 bank crisis. Secondly, the defective arguments put by Vickers (considered below) do not give much assurance that bank regulators are supremely competent.

### **Underestimating the risk.**

Moreover, if shareholders underestimate the risk and a bank runs into difficulty, there is no subsidy: that is, shareholders take a hair cut regardless of whether they get the insurance premium right or not.

In contrast, if an FDIC type insurer underestimates the risks, the taxpayer comes to the rescue, and that constitutes a subsidy. Indeed, that is exactly what happened in the AIG fiasco in the US at the height of the crisis.

5. If government insures banks, sure as night follows day, banks will lobby and bribe politicians into underestimating the risk of bank failures: witness the fact that banks have very successfully watered down the Dodd-Frank bank regulations.

6. Contrary to popular perception, Walter Bagehot did not approve of LLR. In the last chapter of his book "Lombard Street", he expressed disapproval of it, but said he thought it was so ingrained in the system that it would be too difficult to remove.

7. A possible objection to having banks funded wholly or largely by equity is that when it transpires that bank assets (i.e. loans) are worth considerably less than book value, there will be a significant reduction in lending. The answer to that is that if any business over extends itself, that is, over estimates the amount it can sell, then a reduction in the size of the business is exactly what is needed.

In contrast, the whole thrust of FDIC/LLR insurance is to get banks back to where they were prior to the credit crunch or bank induced downturn. For example, with deposit insurance, if one bank lends out depositors' money and loses the whole lot, no matter: the insurance system reimburses depositors, who then deposit their money at another bank, which is a temptation for the latter bank to lend that money out again.

8. As the former governor of the Bank of England, Mervyn King put it:

"..we saw in 1987 and again in the early 2000s, that a sharp fall in equity values did not cause the same damage as did the banking crisis. Equity markets provide a natural safety valve, and when they suffer sharp falls, economic policy can respond. But when the banking system failed in September 2008, not even massive injections of both liquidity and capital by the state could prevent a devastating collapse of confidence and output around the world."

In short, a system where banks are funded by equity is more resilient than where they are funded by debt (e.g. deposits).

To paraphrase Mervyn King, under the existing bank system bank failures can lead to chaos despite the protection allegedly offered by the two backups, LLR and deposit insurance.

## **Conclusion.**

The conclusion of this section on the subject of FDIC/LLR insurance is as follows.

Lending on deposit money can never be totally safe, but it might seem that the risk there can be covered with FDIC/LLR type insurance. Unfortunately that type of insurance has numerous defects chief of which is that it is an inherently more expensive way of funding banks than funding them via equity. Thus the basic point made in this paper stands, namely that loans should be funded just by equity, while deposits which are supposed to be totally safe should be just that: totally safe.

### **Section 3: The Vickers commission.**

#### **A ban on traditional banking reduces growth?**

Probably the most common objection to a ban on the lending on of deposit money is that there would be a significant reduction in lending, which in turn would allegedly reduce GDP or economic growth.

That argument is frequently put by banks and organisations representing banks, plus that argument was put by the UK's Independent Commission on Banking, which was chaired by Sir John Vickers (see Vickers (2011)). The final report of that commission will be referred to below as "Vickers".

As to arguments put by banks, they are frequently dishonest (see Masters (2011)). Or as Paul Volker put it, "Just about whatever anyone proposes, no matter what it is, the banks will come out and claim that it will restrict credit and harm the economy....It's all bullshit". Thus only the arguments put by Vickers will be considered here. Also, Vickers merits attention because it was

the main official response to the bank crisis of 2007/8 in the UK: that is, Vickers is the nearest equivalent in the UK to Dodd-Frank in the US.

Incidentally numerous objections to full reserve banking other than those made by Vickers are dealt with in section 2 of Musgrave (2014). But in the paragraphs below, it is just the Vickers objections that are considered.

### **Vickers's criticisms of full reserve.**

Section 3.20 of Vickers introduces (but does not support) the system advocated here, namely splitting the bank industry into a totally safe deposit accepting half and a lending half which is funded just by equity. And section 3.21 claims that if banks "...were not able to perform their core economic function of intermediating between deposits and loans, the economic costs would be very high. If all current retail deposits were placed in narrow banks, around £1tn of deposits which currently support credit provision in the economy would no longer be able to do so. Alternative sources of credit could arise – for example if narrow banks could invest only in short-term UK sovereign debt ('gilts') the current investors in gilts would need other assets to invest in, since the stock of gilts would be more than taken up by the demand from narrow banks."

Incidentally, the phrase "narrow bank" is a name used by Vickers (and indeed others) to describe the above mentioned totally safe half of the bank industry.



### **The alleged “high costs” of not lending on deposits.**

As regards Vickers’s claim that the “economic costs” of not lending on deposits would be “very high”, Vickers does give detailed reasons. But one reason (which Vickers and others may have in mind) is that less lending, all else equal, brings a fall in aggregate demand and GDP, which might be construed as an “economic cost”.

The flaw in that idea is that the state can easily make up for any such fall in demand by standard stimulatory measures: interest rate cuts, QE, a larger deficit and so on. That way, demand can easily be brought up to the full employment level: the level at which inflation becomes a potential problem (NAIRU if you like acronyms).

The only difference between full employment brought about in that scenario, and full employment brought about where deposit money CAN BE loaned on is that clearly there would be more loan-based activity in the second scenario, and less non-loan-based activity.

Indeed, given that fiscal stimulus combined with QE comes to the same thing as the state printing and spending money into the private sector, the increased amount of money in private sector hands in the first scenario would mean that households and employers would NOT NEED to borrow so much. And as it just so happens, there has been a huge increase in the proportion of the money supply since QE was implemented that consists of central bank or state created money as distinct from private bank created money (which normally makes up a good 95% of the money supply).

Moreover, Vickers’s determination to maintain the amount of lending comes to exactly the same thing as a determination to maintain the level of private

sector debts, and it is widely believed that such debts are excessive. Indeed, numerous commentators advocate increased lending in one breath, and reduced debts in the next breath: a flagrant self-contradiction.

At any rate, given that full employment can very easily be maintained if deposit money can no longer be loaned on, the only remaining question is what is the optimum or GDP maximising arrangement: an arrangement where deposits CAN BE loaned on and where banks are inevitably subsidised, or second, an arrangement where deposit money CANNOT be loaned on, and where in consequence banks are NOT subsidised.

Well there is a very simple answer to that question: subsidies misallocate resources unless there is a good social justification for a subsidy, as is doubtless the case with education for kids. Indeed, Vickers quite clearly does not approve of taxpayer backing for private banks. As Vickers puts it, "The risks inevitably associated with banking have to sit somewhere, and it should not be with taxpayers."

Thus a system under which lending is done in a strictly commercial, or subsidy free basis is the system that maximises GDP. In short, Vickers's assumption that because lending declines when deposit money is no longer loaned on, that therefor GDP declines does not stand inspection.

### **The stock exchange.**

Another weakness in Vickers's claim that the "economic costs" of a ban on the lending on of deposit money would be high is that Vickers's section 3.21 assumes that the only type of investor stepping in to take the place of depositors would be existing holders of government debt. That is because,

according to Vickers, if totally safe money (i.e. existing bank deposits) is invested in government debt, then existing investors in that debt would tend to be pushed out of that type of investment, which would mean that some of them would purchase bank equity.

There are actually another significant types of investor which would buy bank equity. First there are holders of equity in non-bank corporations. That is, a ban on the lending on of deposit money would obviously raise the rewards for funding loans, which in turn would attract investors away from non-bank corporations.

Of course that would mean a rise in the return on all types of equity, but if the arguments presented here are correct, that rise stems simply from removing a subsidy (of banks). And that ought to involve a better allocation of resources, i.e. an increase in GDP, all else equal.

Second, some of those depositors prevented from having their money loaned on would also buy bank equity. In other words Vickers is misleading to say “If all current retail deposits were placed in narrow banks, around £1tn of deposits which currently support credit provision in the economy would no longer be able to do so.” That is (assuming £1tn is the right figure), not all those depositors would cease funding loans.

To summarise, if depositors are prevented from supporting loans, the effect would be a major re-arrangement of investment portfolios by wealthy individuals, pension funds and so on. The NET EFFECT would be a reduction in loans (and debts), but if the arguments in this paper are correct, that change would increase, not reduce GDP.

### **Stability and shadow banks.**

Next in section 3.21, Vickers claims, “Either way, narrow banking would mean that ring-fenced banks could not be a source of stable credit supply during times of stress. Instead, the supply of credit would move entirely to a less regulated sector.”

Incidentally, the phrase “ring-fenced” can be ignored, but for any readers who are interested, there is an endnote below that explains the term.

At any rate, the idea that banks SHOULD BE a totally stable source of credit is actually flawed and for reasons mentioned above. That is that where any industry makes a loss, that is a very good indication that it has over-extended itself: that is, over-estimated the size of its potential market. In that scenario, a cut in the size of the industry, far from being undesirable, as Vickers seems to suggest, is very much justified.

And as for Vickers’s above suggestion that credit supply would move to the “less regulated sector”, clearly if regular banks are more tightly regulated, then unregulated or less regulated banks and quasi-banks will move in to fill the gap. But the answer to that point was given by Adair Turner (former head of the UK’s Financial Services Authority). As he pointed out, ALL BANKS, large and small should obey the same rules. In his words “If it looks like a bank and quacks like a bank, it has got to be subject to the same bank like safeguards”.

Construction firms, whether they employ two people or thousands have to obey common standards. There is no reason for banks not to do the same.

That is not to say that EVERY SINGLE entity that acts in a bank-like manner should be regulated. For example if someone lends a small amount to their neighbour, the former is arguably acting like a bank. But there is no need to

regulate that sort of small scale lending: it was not that sort of lending that crashed the World economy in 2007/8. By the same token it would probably not be necessary under full reserve banking to regulate the smallest shadow banks.

Provisional conclusion: Vickers's criticisms of full reserve banking seem to be feeble in the extreme. But there is more to come.

### **Section 3.22.**

This section concentrates on the idea that loans should be funded just by shareholders (or stakeholders who are in effect shareholders). And Vickers claims, "First, it would constrain banks' ability to produce liquidity through the creation of liabilities (deposits) with shorter maturities than their assets. The existence of such deposits allows households and firms to settle payments easily. Second, banks would no longer be incentivised to monitor their borrowers, and it would be more difficult to modify loan agreements. These activities help to maximise the economic value of bank loans."

Taking the above "liquidity" criticism first, Vickers is of course quite correct to say that where a bank creates liabilities "with shorter maturities than their assets", liquidity is created. In fact where the "shorter maturity" is zero or a few weeks, a particular form of liquidity that is created, namely money.

However, there is absolutely no need for private banks to create money, given that central banks can and do create money, and without any sort of risk of credit crunches as a result of that money creation. Central banks have for a century or more issued a proportion of the money supply, namely physical money, i.e. notes and coin, and bank reserves. Plus, to repeat, as a result of

QE, the proportion of the money supply created by central banks is, at the time of writing, at a record high. Thus there is no obvious problem involved in having ALL MONEY created or “printed” by the central bank.

And there is no question but that money creation by private banks involves risk. As Diamond (1999) put it in his abstract and relation to liquidity creation, “We show the bank has to have a fragile capital structure, subject to bank runs, in order to perform these functions.”

If private money creation involves the risk of bank runs, then that is a good argument against private money creation.

Moreover, if the central bank is the only issuer of money, there is absolutely nothing to stop it issuing whatever amount is needed to bring full employment. And the existence of that money enables “households and firms to settle payments easily” to quote Vickers.

### **Monitoring borrowers.**

As for Vickers’s claim that “banks would no longer be incentivised to monitor their borrowers, and it would be more difficult to modify loan agreements”, no reasons are given.

However, the reality is probably the reverse of Vickers’s latter suggestion. That is, under full reserve, banks are, to repeat, funded just by shareholders. Now if 100% of those funding a lender are shareholders, rather than about 3% as was the case prior to the 2007/8 crisis, there are far more people with an interest in seeing that the entity lends responsibly. That is, there is a greater “incentive to monitor borrowers”, not a smaller incentive.

Indeed, the irresponsible lending to Eurozone periphery countries in the first decade or so of the life of the Euro resulted precisely from the lack of bank funders with an interest in insuring responsible lending. That is, banks knew, or strongly suspected that the Eurozone authorities would not let a Eurozone government or a series of banks go bust. Those banks thus knew they could play fast and loose with depositors' and bondholders' money.

As for the basis for Vickers's claim that modifying "loan agreements" would be difficult under full reserve, no reasons are given, and it is hard to see any good reason. A full reserve bank is an entity which like any other entity, e.g. a person or corporation, is free to make any agreement it wants with whoever it wants, as long as the agreement is legal. It is also free to include in agreements whatever clauses it likes to govern modifying such agreements.

### **Section 3.23.**

This section continues to argue for a system under which deposits are loaned on, and it claims, amongst other things that, "So some risk of failure should be tolerated but it must be possible for the authorities to ensure continuous provision of vital services without taxpayer support for the creditors of a failed provider."

Well that raises a big question, namely if a bank loses a significant proportion of depositors' money, who exactly does come to the rescue if not the taxpayer? Indeed, therein lies the central problem with traditional banking. That is, and the quote the title of this paper, it would seem that "If banks do not have a 100% capital ratio, they are subsidised."

**Endnote – Vickers’s ring-fenced banks.**

Vickers advocated splitting the bank industry into two halves: first, what might be called a “casino” or investment bank half, and second, a half that concentrates on basic simple bank functions, particularly for households and small businesses. The latter includes accepting deposits, organising the transfer of money via cheques, debit cards and so on, and granting loans and mortgages to small businesses and households. That second half is referred to by Vickers as the “ring-fenced” half of the industry.

The phrase ring-fence is not of much relevance to the arguments here because the arguments in this paper apply to all banks, regardless of whether they concentrate on small or large businesses or whether they offer cheque and debit cards to customers or not.

Indeed, therein lies one of the big merits of the system advocated in this paper: it consists of a set of rules which are much simpler than those advocated by Vickers or Dodd-Frank, and which cover both investment banks and retail banks.

The basic rule is simply: “all those who fund money lenders must be shareholders, not depositors”.



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