



Munich Personal RePEc Archive

## **Removing bank subsidies leads inexorably to full reserve banking**

Musgrave, Ralph S.

None

3 January 2013

Online at <https://mpra.ub.uni-muenchen.de/43544/>  
MPRA Paper No. 43544, posted 03 Jan 2013 14:05 UTC

## **Removing bank subsidies leads inexorably to full reserve banking.**

R.S.Musgrave.

**Summary.** The recent banking crisis laid bare a long standing and inherent defect in fractional reserve banking: the fact that fractional reserve is unlikely to work for long without taxpayer backing. Changing bank regulations in such a way that banks are never a burden on taxpayers leads inexorably to full reserve banking.

Full reserve involves splitting the banking industry into two halves. A safe half where depositors earn no interest, but they do have instant access to their money, and a second half in which depositors do earn a dividend or interest, but instant access is not guaranteed and depositors bear the losses when the investments or loans to which their money is channelled go wrong. Whether the second half counts as “banking” is debatable. Also whether that split is within banks or involves splitting the banking industry into two different types of institution is unimportant.

It is virtually impossible for a full reserve bank to fail, thus there is no implicit taxpayer subsidy of such banks. As to the safe half, deposits are not loaned on or invested, thus the relevant money is not put at risk. And as to the “investment” half, if the value of the relevant loans or investments fall, then depositors lose in the same way as investors lose given a stock market set back. And stock market set-backs do not cause the same sort of crises as bank panics.

The reduced amount of lending based economic activity and increased amount of non-lending based activity that results from full reserve is an entirely predictable result of removing bank subsidies. Far from reducing GDP, removing subsidies normally increases GDP, and there is no reason to suppose GDP would not rise as a result of removing bank subsidies: i.e. switching to full reserve banking.

Section I sets out the argument, and section II deals with some common criticisms of full reserve banking.

## Contents.

4. Definitions.

**5. Section I. Removing bank subsidies leads inexorably to full reserve banking.**

5. The basic flaw in banking.

8. Instant access accounts should not earn interest.

8. Depositors who want interest must accept risk.

10. Full reserve banks do not create money.

11. Bank failure is near impossible under full reserve.

11. The Werner system.

12. Money market funds and checking facilities.

13. Full reserve is simple compared to ICB or Basel.

14. A subsidy free fractional reserve system.

**14. Section II: The alleged justifications for fractional reserve banking.**

14. What is wrong with improved capital ratios a la Basel?

19. Idle money is a waste of resources?

20. Full reserve reduces individual banks freedom to lend?

21. Political problems.

22. Fine tuning under full reserve would not be perfect?

23. Funding banks via equity is expensive?

23. The alleged shadow bank problem.

25. Is interest rate instability a problem?

References.

## Definitions.

**Bank.** The word bank is used here very much as per Oxford Dictionary of Economics. The latter starts its definition: “A financial institution whose main activities are borrowing and lending money. Banks borrow by accepting deposits from the general public or other financial institutions.”

**Money.** Likewise, the word “money” is used very much as per standard definitions, that is, the word is used to refer to anything widely accepted in payment for goods and services or in settlement of debts.

**Full reserve banking.** This is also known as 100% reserve or narrow banking. It is a system where only the central bank creates money. That is in contrast to the existing fractional reserve system under which commercial banks when making a loan do not need to obtain funds from depositors or others before making loans: commercial banks can simply credit borrowers’ accounts with money produced from thin air.

There are of course differences between central bank and commercial bank created money, so to that extent the above definition of full reserve banking over-simplifies things. However, both types of money fit the above definition of the word money.

## **Section I. Removing bank subsidies leads inexorably to full reserve banking.**

A fundamental and very simple principle that should underlie banking is that banking is a business like any other: it should make a profit or at least break even. That is, the normal assumption in economics is that resources are best allocated and GDP is maximised where market forces prevail, unless overriding social considerations or market failure can be demonstrated. And having “market forces prevail” means abiding by the latter “break even” condition. All the arguments and conclusions below flow that very simple and widely accepted principle.

The latter mode of argument, that is arguing FROM the proposition that businesses should at least break even TO full reserve is a robust form of argument for full reserve, because the latter “break even” idea is widely accepted.

### **The basic flaw in banking.**

There is a very simple and basic flaw which lies at the heart of banking as it has been practiced for centuries, and which breaks the latter principle. It is thus.

The value of the bulk of bank’s liabilities (deposits) are fixed in money unit terms (i.e. in terms of dollars, pounds, etc). In contrast, their assets (loans, investments, etc) vary significantly in value, and can and do fall disastrously in value from time to time. That happens when a bank makes a string of bad loans or investments: something that is guaranteed to happen sooner or later.

The latter large fall in value has happened over and over again and has led to repeated bank failures throughout history. And that problem is currently solved by taxpayer backing, which amounts to a subsidy of the banking industry: the so called “too big to fail subsidy” (TBTF). But the latter subsidy contravenes the basic principle set out at the start above, namely that banks should not be subsidised. (As to the actual size of subsidies enjoyed by banks, there are numerous estimates. Haldane

(2011a&b) puts the subsidies at several times bank profits, which if true would make fractional reserve banks LUDICROUSLY uneconomic.)

Moreover, contravention of the “break even” principle is worse than might at first appear, and for five reasons.

1. There is the “lender of last resort” facility offered by central banks to commercial banks. Now if supposedly “commercial” banks have the luxury of lender of last resort, then every other business should have access to the same facility if there is to be an absence of bank subsidies or absence of preferential treatment for banks.

But even better would be no such facility at all. Reason is that funds for such a facility are inevitably funds withdrawn from the rest of the economy, that is from viable businesses (assuming constant GDP). Put another way, absent last resort largesse, the relevant funds would be available to be spent on goods and services provided by normal and viable businesses.

2. The lender of last resort facility is supposed to be on the basis of the principles set out by Walter Bagehot, namely that funds are available only at penalty rates and in exchange for first class collateral. In practice of course, lender of last resort has degenerated into almost the opposite: that is in the recent crises, banks have sometimes been offered loans at very favourable rates and on the basis of QUESTIONABLE collateral.

3. Bagehot did not even approve of central banks or of the lender of last resort facility. His point was that if central banks exist and offer a lender of last resort facility, it should be on the basis of penalty rates and first class collateral (see Selgin (2010:p.492)).

4. Another form of preferential treatment for banks is that in recent decades they have been allowed to publish balance sheets which are essentially works of fiction (Peston (2012, p.15-16): an activity which would result in severe penalties for the directors and/or accountants of any other business.

5. The main beneficiaries of bank bail outs and the TBTF subsidy are those with above average amounts of money deposited in banks. Thus those subsidies pretty much amount to the average taxpayer subsidising the rich: a policy devoid of social justice. Indeed that unjust policy has

taken an even more extreme form over the last five years in the form of having ordinary taxpayers rescue not just rich depositors, but bondholders as well! The latter policy caused extreme and justified resentment amongst the less well off in some Euro periphery countries, like Ireland.

The above points can be put another way and as follows. When someone invests DIRECT (for example in property or the stock exchange) and it goes wrong, they lose money, and quite right. On the other hand if they put their money into a bank and the bank invests in property or the stock exchange and it goes wrong, the depositor / investor is rescued by the taxpayer. Advocates of the existing banking system need to tell us what the justification is for the latter artificial assistance for banks and their customers. Of course those advocates cannot answer the latter question. In fact I know of no instances of them even asking the question, and if there are indeed no such instances or very few, that says something about the tenuous grip on reality possessed by advocates of fractional reserve banking.

It follows from the above that the only system that completely dispenses with bank subsidies is one that makes it abundantly clear that under no circumstances will there be any taxpayer assistance for banks. And as to the idea that the current attempts at bank reform (Basel III, ICB (2011), etc) actually achieve the latter “abundant clarity”, that is laughable.

As the governor of the Bank of England at the time of writing (King 2010) put it, “Basel III on its own will not prevent another crisis..”. Plus there are more references below to the widespread scepticism about current attempts at reform. And we all know what will happen come the “next crisis”: taxpayers will come riding to the rescue. So current attempts at reform just don’t remove the TBTF subsidy or the spectacular billion dollar bailouts that will appear come the next crisis.



## **Instant access accounts should not earn interest.**

To summarise so far, the basic activity carried out by banks, namely, 1, taking deposits, 2, lending on or investing the relevant money, while 3, promising to return the exact sums deposited to depositors is nonsense, because it is almost guaranteed at some point to fail, which in turn makes bank subsidies necessary.

So the obvious conclusion would seem to be that banks should not lend on or invest depositors' money. Indeed, if banks do not lend on such money, that money is then very near 100% safe, which in turn means no taxpayer exposure or taxpayer funded subsidy.

Or as King (2010) put it: "If there is a need for genuinely safe deposits the only way they can be provided, while ensuring costs and benefits are fully aligned, is to insist such deposits do not coexist with risky assets."

Moreover, where money is not lent on, it does not earn interest, thus depositors who want 100% safety cannot expect any interest (not that depositors get any significant interest anyway at the time of writing).

So called banks which simply accept deposits and do nothing with those deposits will henceforth be referred to as "depository banks".

(Incidentally, the obvious objection to the latter sort of system, namely that it would curtail bank lending and hinder economic growth, is dealt with in Section II below.)

## **Depositors who want interest must accept risk.**

As distinct from the above mentioned depositors who want 100% safety and accept that that means they get no interest, there are depositor / investors who want some sort of interest or dividend on their money. However it is a flagrant self-contradiction to ask for interest or a dividend AND for 100% safety. Reason is, as already intimated, that the only way interest can be earned is by lending on or investing money, and the very fact of doing that means the money is not 100% safe: the loans or investments can go wrong.

(Of course some form of self-funding insurance, like FDIC in the US, can deal with the failure of a small bank. However, when it comes to systemic failure or the failure of an individual large bank, only the state can come to the rescue, and indeed, entire states have been near bankrupted in the recent crisis.)

Thus if the basic principle mentioned at the start above (namely that banks should pay their way) is to be observed, depositors who want interest must carry the loss when the underlying loans go wrong. And where the latter policy obtains, those depositors are little different to bank shareholders. Or put another way, such depositors are little different to those who buy into unit trusts (“mutual funds” in the US).

Indeed, Kotlikoff (2012 & 2010), an advocate of full reserve, argues that where depositors want interest and are prepared to take the concomitant risk, they should SPECIFICALLY be offered a range of unit trusts to choose from.

Moreover, unit trusts, whether they are run by banks or not are essentially separate from banks. Certainly if the assets of an EXISTING unit trust run by a bank turned out to be worthless, that is not supposed to harm depositors, or bondholders or shareholders of the bank itself.

Indeed, there is much merit in making unit trusts run by banks fully open to or available to those who ARE NOT customers of the bank in question: it increases the independence of those trusts from the relevant banks still further. First that tests the value of the relevant units. Second, absent the latter “independence”, under a Kotlikoff system, it is 100% certain that banks would try to promise their existing customers that investments in their unit trusts were as good as cash and would try to maintain that fiction by restricting access to bank run unit trusts to existing bank customers. Commercial banks always want to get into the money creation or seignorage business, and the latter is one way of doing it. That is, absent any test of the real value of those unit trusts, banks might claim those trusts’ value was more than was really the case. And that would enable banks to turn unit trust units into a form of quasi-money. Thus if full reserve were to be introduced along “Kotlikoff” lines, there are good reasons for having any unit trusts run by banks

very much separate entities from banks themselves, just as is the case with unit trusts currently run by banks.

To summarise, there is a logical place for institutions that accept deposits, but do nothing with those deposits (depository banks). Plus there is a logical place for institutions which (like unit trusts) accept investors' money, but do not promise to return any SPECIFIC SUM to such investors.

As to institutions which fall within the above Oxford Dictionary Definition of the word "bank", there is no place for such institutions: at least not if the principle mentioned at the outset is to be obeyed, namely that commercial organisations should make a profit or at least break even.

In other words to use the phrase "ring fence" (a phrase popularised by Britain's Independent Commission on Banking (ICB (2011))), the fence should be between on the one hand, safe accounts and on the other hand, investment accounts or unit trusts or other investing / lending institutions.

### **Full reserve banks do not create money.**

Under fractional reserve, commercial banks can create money when they lend. That is, where a bank grants a loan which is not matched by any corresponding "loan reduction" or loan repayment, then money creation takes place. The latter process involves simply crediting the borrower's account with money that comes from nowhere.

Now since depository banks do not lend, they do not create money. Thus such banks are essentially full reserve banks.

As to investing institutions like unit trusts, they do not create money either. That is, when someone invests £X in a unit trust for example, they lose £X and gain £X of units. That is different to where someone deposits £X in a traditional bank and their money is loaned on. In that case, both depositor and borrower hold £X: that is, £X is turned into £2X.

## **Bank failure is near impossible under full reserve.**

Under full reserve, and absent large scale and blatant criminality, it is impossible for depository banks to fail. As to investing institutions, they are not prone to the sort of sudden collapse or “run” that occurs with traditional or existing banks. Of course a significant fall in the value of unit trusts can take place. But that is not the same as a run on a traditional bank. A bank run can start where there is just a SUSPICION that the bank is insolvent. And which TYPE OF insolvency is involved – cash flow insolvent, balance sheet insolvency, etc – does not matter too much.

In contrast, those who buy into unit trusts or similar investing entities DO NOT EXPECT to be able necessarily to withdraw exactly the sum that they invested. At worst, the value of unit trust falls. But that happens every time there is a stock market set-back, and stock market set-backs of themselves do not cause recessions.

Or as King (2010) put it, “And 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...”

## **The Werner system.**

There are of course variations on the full reserve theme. One was set out by Werner (2010). Under the latter system, those wanting their money invested rather than simply being lodged in a 100% safe manner, put their money into so called investment accounts for a specific and longish period, or they have to give a period of notice before withdrawing their money.

Under that system, if the average maturity of those deposits is less than the maturity of the relevant investments, then maturity transformation (MT) takes place, which in turn amounts to money creation. And there is no question but that MT involves risks. That is, it is precisely MT (i.e. “borrow short and lend long”) that has brought down hundreds of banks

throughout history, Northern Rock being just a recent example. In short, MT necessitates bank subsidies.

So to ensure no risks of the latter sort arise, the above average maturities have to match. But even then it's possible that the value of the relevant investments declines substantially, in which case the bank may not be able to repay depositors. Werner does advocate letting depositors choose how much risk they are prepared to accept (in exchange for a better or worse rate of interest or dividend). But if investors are not exposed to losing all their money, then someone carries the risk. And we all know who that is: the taxpayer.

Thus the Kotlikoff system seems preferable. Under the latter system, depositors are free to try to cash in their investment any time, but the risk is that that depresses the value of the relevant investments, which in turn dissuades others from cashing in. The Kotlikoff system certainly gives depositor / investors more flexibility.

For that reason, the Kotlikoff system will be assumed from now on.

## **Money market funds and checking facilities.**

In the U.S. there are so called "money market funds" which offer checking facilities and invest only in supposedly safe securities, which makes them compliant or very near compliant with the principles of full reserve.

Kotlikoff actually regards these funds as being "compliant". But there are two problems with counting ANY FORM of investment (even if only in government securities) as "full reserve compliant".

1. Financial institutions may bribe or cajole politicians and regulators into progressively accepting and counting ever more risky investments as being compliant.

The latter is not a problem at the moment because money market funds are run by risk averse individuals, while "riskphiles" work for investment banks. But if the activities of banks, investment banks included were to

be more heavily regulated, there could be a movement of riskphiles, accompanied by smart lawyers, into the money market fund sector.

2. As to the government debt that money market funds invest in, that is far from entirely safe. Government securities even in well run countries rise and fall substantially in value. As to the idea that the debt of Eurozone periphery countries is safe at the time of writing, that is completely unrealistic. Indeed, one money market fund in the US failed during the recent crisis.

So much the best solution here is a clear line in the sand: “instant access or checking account money should never be invested in anything”.

The alternative (for those who want to invest in very safe securities) is to have unit trusts or similar investing institutions which (a la Kotlikoff) concentrate on such securities. But in that case the value of depositors' stakes must be allowed to float (again a la Kotlikoff). Indeed the Financial Stability Oversight Council in the U.S. has realised this. See Wall Street Journal (2012).

### **A subsidy free fractional reserve system.**

Having argued that removing bank subsidies leads to full reserve, it could be argued that a subsidy free fractional reserve system would be possible. That is, it would be possible under a fractional reserve system for government to simply refuse to recompense depositors in the event of a bank failing (as indeed was the case in for example the US prior to the 1930s). But in that case, depositors become risk carriers, just as under the full reserve system advocated here: i.e. those depositors become very similar to bank shareholders. So that system comes to much the same as full reserve.

As to depositors who wanted 100% safety under the above “subsidy free fractional reserve” system, they would go for government provided savings accounts of some sort (e.g. National Savings and Investments in the UK). And that also amounts to the same thing as full reserve.

## **Section II: The alleged justifications for fractional reserve.**

### **What is wrong with improved capital ratios a la Basel?**

The obvious alternative to the near 100% safe banks that full reserve brings is to retain fractional reserve and improve capital ratios and/or make sure bondholders bear some of the costs when a bank fails. Indeed the latter sort of objective is very much what the ICB, Basel III and Frank-Dodd are all about. And certainly such legislation could in theory make banks near 100% safe. But there are several problems with the latter sort of legislation. I will set out the problems briefly, and then consider each in detail.

1. ICB type legislation is complicated. 2. Because of the complexity, it is easy for banks to water down the legislation via lobbying. 3. Fractional reserve does give private banks freedom to influence stimulus, but it is largely governments nowadays that determine stimulus, plus banks tend to give stimulus a boost just when it is not needed. 4. Fractional reserve does give banks more freedom to boost lending given an increased number of viable lending opportunities. Unfortunately “viability” is normally code for “speculation”, and even where it is not, the latter boost to lending just boosts inflation.

Now for a more detailed consideration of those four points.

1. ICB or Basel type regulation is horrendously complicated.

Many economists are frustrated by this complexity, for example Haldane (2012) in his introduction, Kay (2009, p. 9-10), Mallaby (2012) and Rogoff (2012). The need for simplification is referred to in the preface of Kregel (2012).

In contrast, the basic rules of full reserve are just two in number and are simple. First, banks or other entities which hold money on behalf of depositors cannot invest or lend on that money if the depositor wants 100% safety and/or instant access to the money. Second, if the depositor is prepared to forego instant access and have their money invested or loaned on with a view to earning interest or a dividend, the depositor loses access to money, and instead holds an asset which is

little different to a shareholding or a stake in the latter investments or loans.

Science awards top marks to the simple ideas that explain a lot, with  $E=MC^2$  being a classic example. Conversely it is right to be suspicious of complex alleged solutions to problems.

2. Banks devote HUGE efforts to watering down bank regulations. For example in Britain, the finance industry spends £93 million a year on lobbying (Mathaison (2012)). A complex set of rules governing some reserve figure other than 100% is easy for banks to nibble away at. In contrast, 100% is a clear line in the sand.

In fact it is debatable as to how much “nibbling” banks would need to do since they seem to have ALREADY watered down ICB and Basel type legislation to near impotence. For example thanks to bank lobbying, the capital adequacy ratio suggested by Basel III (33:1) is no different to the ratio at Lehmans with it failed.

3. There is a popular argument to the effect that fractional reserve somehow absolves governments and central banks from creating money or providing stimulus: the “burden” so to speak is carried by private banks. For example Kregel (2012) in criticising the full reserve arguments put by Minsky (1995) says in reference to full reserve “This would be a system marked by a chronic tendency toward deflation, making it even more reliant on demand injections from the government.” (Wolf (2012) made a similar point when he said “I cannot see why the right answer should be no leverage at all. An intermediary that can never fail is surely also far too safe.”

There are five answers to the above sort of point as follows.

i) Kregel & Co may not have noticed, but economies are heavily dependent on “demand injections from government” anyway! That is, come a recession, everyone looks to the central bank to reduce interest rates or for government to implement fiscal stimulus. (It is true that in the recent crisis, particularly in the UK, there have been calls for more bank



lending. But that is unusual, and is a peculiarity of the recent crisis which was very much caused by banks. I.e. normally, when stimulus is required, everyone looks to monetary and/or fiscal policies for solutions.

ii) As to Kregel's suggestion that banks can bring "injection", they are certainly likely to do that from time to time under fractional reserve. But they are likely to do so in a boom: exactly when more injection is not needed! And of course the most dramatic recent example of that was the credit fuelled house price boom that preceded the recent crisis, followed by mega bank bail outs, followed by the worst recession since the 1930: hardly an advertisement for letting banks influence stimulus. As the head of Britain's Financial Services Authority (Turner (2012)) put it, "The financial crisis of 2007/08 occurred because we failed to constrain the private financial system's creation of private credit and money."

iii) Given that we already have a system for effecting stimulus (monetary / fiscal policy), letting banks affect stimulus is clear prima facie case of duplication of effort. Or put it another way, on the face of it, it contravenes the Tinbergen principle. (The latter principle states, roughly speaking, that for each policy objective (e.g. effecting stimulus) one policy instrument and one only is required).

Thus the advocates of private bank effected stimulus need to tell us why this duplication of effort is justified. As far as I know it has never occurred to them that duplication of effort is involved, never mind justifying that duplication.

iv). As to Kregel's "deflation" point, that was dealt with above. To recap briefly, the answer to that point is that introducing full reserve probably has an initial deflationary effect, but that effect is easily dealt with by having government / central bank create and spend extra money into the economy. As to the word "chronic", that is just emotive rhetoric, which Kregel fails to substantiate.

v). In addition to the above mentioned EVIDENCE as to what happens when private banks influence stimulus, there is a theoretical flaw in the idea, as follows.

Economic expansion can be led either by a general increase in demand which of course results in some extra lending and investment. Or it can

be led just by additional lending. However, there are no circumstances in which the latter makes sense. This however, this is a complicated point, and it is not possible to do the point full justice here. So what follows is brief and simplified version of the argument.

Let us take two scenarios: first where an economy is at capacity and second where it is operating at below capacity, and I'll consider the first one first.

If an economy is at capacity, and everything is in equilibrium (e.g. interest rates and investment are optimum) there is no reason for additional lending because the amount of lending is already optimum: extra lending will simply lead to excess demand and inflation. However, extra lending can very easily take place given excess bank reserves as explained by Selgin (2012). Plus extra lending can take place where interest rates are at their optimum or free market level as pointed out by Huber (2009: p.31). Huber's point is that most entities that borrow and lend have to pay interest to those they borrow from, while in contrast, banks do not always do this. That is, banks can simply create money from thin air and lend it out, and that activity clearly has a stimulatory effect. So in a "Selgin" or "Huber" scenario, bank determined injection can occur when it is not needed. And of course that Selgin and Huber theory is backed by the evidence: the recent crisis.

Now let us take the second assumption, namely that an economy is operating at below capacity. In that scenario obviously extra demand is needed. But whence the assumption that ALL THAT DEMAND (or most of it) should come via extra lending rather than via a GENERAL or broad based rise in demand? There is absolutely no reason. At least there is no reason given the assumptions made above, namely that everything is optimum and that includes the assumption that lending and investment are optimum relative to GDP (a GDP which of course is sub-optimum).

Indeed, one work which advocates full reserve (Werner (2010)) specifically advocates that any additional demand should be broad based, and not concentrated on lending or investment.

vi) As for any idea that full reserve in making government entirely responsible for stimulus imposes some sort of "burden" on government

or central bank, that is completely untrue in that creating new money costs nothing in real terms.

As Friedman (1960, Ch 3) put it, “It need cost society essentially nothing in real resources to provide the individual with the current services of an additional dollar in cash balances.” (Incidentally, that quote is from a book of Friedman’s which actually advocates full reserve banking.)

4. Another fallacious argument for fractional reserve is that if banks see more than the normal number of viable lending opportunities, they are free under fractional reserve to create new money and fund those opportunities, whereas under full reserve with its relatively fixed money supply, banks would be more restricted, and given the increased demand for loanable funds, interest rates would probably rise.

The first flaw in that argument is that when private banks see what they think is an increased number of viable lending opportunities, they are normally looking at a mirage. That is, so called “viability” consists of loans made with a view to stock market speculation, as was the case just prior to the 1929 crash. Alternatively there was the property speculation that preceded the recent crisis.

But let us suppose that banks see an increased number of GENUINELY viable lending opportunities, e.g. a spate of technological improvements that call for increased investment. Under fractional reserve, banks would create and lend out new money, but unfortunately the effect would be stimulatory. And assuming the economy was already at capacity, the result would be excess inflation.

In contrast, under full reserve, the relatively inflexible supply of money would result in interest rates rising. That would reduce the extra investment spending a bit, plus it would induce extra saving, which would have a deflationary effect which would counter the stimulatory effect coming the extra investment spending. And the net result of that, ideally, would be no excess inflation.

So the answer to the above Kregel type point is that both the theory and the evidence is that when the banking system has the freedom to influence stimulus or “injection”, it is likely to effect it when it is not

needed. Second, where stimulus IS NEEDED, but everything else is optimum, there is no reason for the bulk of such stimulus to be led by or to consist mainly of extra bank lending. Thus the above “Kregel” criticism of full reserve, namely that it is a system that is reliant on government for “injections” or stimulus does not stand inspection.

### **Idle money is a waste of resources?**

As already pointed out, fractional reserve involves letting safe or instant access money be invested or loaned on, and that, according to the advocates of fractional reserve involves making full use of such money or “capital”.

The latter sort of idea lies at the heart of ICB thinking. To quote: “The economy would suffer if separation prevented retail deposits from financing household mortgages and some business investment.” And much the same point is made by Diamond (2008, Section III) and Kregel (2012). The flaw in that argument is as follows.

The amount of money in “retail deposits” is at its current size partly thanks to bank subsidies. That is, if a particular form of saving is made 100% safe thanks to taxpayer largesse, then there will be more of that type of saving. Secondly, the amount of that money that is currently invested is boosted by the same factor: the fact that those investments are underwritten by the taxpayer. That is, (to repeat) depositors can enjoy 100% certainty of getting their money back while enjoying the rewards of having their money put into less than 100% investments, and partially thanks taxpayers.

In other words the amount of lending and investment currently done via banks is artificially inflated because of taxpayer backing. Thus, far from “the economy suffering” when that subsidy is withdrawn, the effect would be the OPPOSITE. Reason is (to repeat) that unless there is a good reason for a subsidy, GDP rises when a subsidy is withdrawn.

The ICB type argument amounts simply to saying “lending and/or investment are good, so the more of it we have the better”: clearly a nonsensical argument.

As to any deflationary effect that comes the decline in lending that would occur on implementing full reserve, that is easily countered by increasing the TOTAL AMOUNT OF MONEY, i.e. the total money supply. And doing that costs precisely and exactly nothing in real terms, as pointed out in the above Friedman quote. (Indeed, increasing the total stock of central bank money in the hands of private sector entities is inherent to full reserve.)

### **Full reserve reduces individual banks' freedom to lend?**

There is a variation on the “full reserve reduces lending” fallacy which is the claim that under full reserve, an INDIVIDUAL bank which sees more than the usual number of viable lending opportunities would not be able to increase its lending by the required amount.

There are four flaws in that point, as follows.

1. Regardless of what banking system prevails, there are limits to how fast an INDIVIDUAL commercial bank can expand its loan book relative to the rate at which other banks are expanding (as is widely appreciated). Reason is that any such relatively fast expansion results in the expanding bank losing reserves.

2. There are of course solutions to the latter problem. One is for the quickly expanding bank to go into partnership with other lending entities who have spare funds to lend. Indeed those sort of partnerships are already common when it comes to lending very large amounts.

An alternative is for the above “individual” bank or lending / investing institution to borrow from other lending institutions (inter-bank lending). And that again has been common practice for a long time. (The only difference would be that under full reserve, the lender would take a stake or shareholding in the borrowing entity.)

However, the outstanding example of a bank that relied heavily in inter-bank lending or wholesale money markets in the UK recently was Northern Rock, which went bust: not exactly a ringing endorsement for the idea that there is huge merit in allowing an individual bank to expand much faster than others.

3. Even if the amount of lending per bank or unit trust were somehow fixed, banks or other lending / investing institutions would just restrict lending to the MOST VIABLE borrowers, while turning down the borrowers of marginal viability. And the economy suffers very little when projects of marginal viability are stopped or delayed.

4. As regards INDIVIDUAL and particularly large loans, the relevant borrower is likely to be able to access the stock exchange or wholesale money markets.

Conclusion: the idea that banks' reduced freedom to lend is some sort of defect in full reserve does not stand inspection.

### **Political problems.**

Full reserve would be a big change from the current system, and as is often the case with big changes, that would probably result in protests from those adversely affected, while those who benefit would keep quiet.

In particular, those who think they have some sort of right to the combination of 100% safe bank accounts plus interest will object. However that is just "bread and circuses" all over again. Or as Samuel Brittan once correctly pointed out, implementing subsidies is easy, while removing them is difficult. The fact that the masses in Ancient Rome objected when free entertainment at the Colosseum was not up to scratch does not prove that free entertainment makes sense.

But sometimes we just have to bow to political forces, and the solution here might be to allow every citizen some sort of account at an institution like National Savings and Investments (NSI) which operates in Britain. NSI offers deposit accounts which are "too good to be true": that is they offer a combination of interest and inflation proofing that commercial banks cannot match. As a result, the amount that can be invested per person in those accounts is limited. And the idea that everyone is entitled to a "too good to be true" account, while the amount deposited per person is limited, would probably have political appeal.

Incidentally, there would be no need under the above NSI idea for everyone to open their own NSI account. That is, a rule could be

implemented under which commercial banks paid interest to depositors with safe accounts up to the above mentioned limit, and obtained the money for interest from NSI (i.e. government). As to whether there would be any point in commercial banks lodging the capital sums involved with NSI, there would be little point. Reason is that under full reserve, money in safe accounts is effectively lodged at the central bank anyway.

### **Fine tuning under full reserve would not be perfect?**

There are two traditional methods of fine tuning: fiscal and monetary, with interest rate adjustment being the main monetary tool. If commercial banks are barred from lending money into existence, that rather rules out interest rate adjustments as a demand regulating tool, since those rate adjustments work VIA commercial banks.

As to fiscal fine tuning, that would still be possible under full reserve. Indeed, some advocates of full reserve (e.g. Werner (2010)) advocate that fine tuning should be done simply by having the government / central bank machine print and spend money into the economy as required (or do the reverse: raise taxes and withdraw money from the economy when inflation looms).

And the criticism has been made (e.g. by Keen (2012)) that that method of fine tuning is not perfect or reliable (which is not to suggest that Keen is a strong opponent of full reserve: he is moderately sympathetic).

Well the simple answer to that is that the above traditional methods of fine tuning (fiscal and monetary) have well known defects, to put it politely. To put it less politely, those traditional methods have led to a disaster: the recent crisis. Thus the above Keen type criticism is hardly a crucial weakness in full reserve. Moreover, interest rate adjustments have numerous and glaring defects – set out below.

### **Funding banks via equity is expensive?**

As already pointed out, under full reserve, depositors who want their money loaned on or invested become similar in nature to shareholders.

And funding via shareholders is more expensive for banks than via depositors. Thus assuming that the “lending on” or “investing” part of banks is still classified as banking, then banks’ funding might seem to become more expensive under full reserve. The flaw in that argument is as follows.

Those supplying equity carry the risk of losing some or all the capital they have supplied, and charge for the service provided. However, if the total amount of equity funding relative to other forms of funding for a bank rises, there is no effect on the total amount of risk. That is, the risk per dollar of equity declines. Thus there is no reason to think that the total charge made by, or reward required by supplies of equity will change. Indeed there is empirical evidence to support that point – see Miles (2011).

Taking the above point to the extreme, if (as under full reserve) depositors accept risk and become little different to shareholders, there would still be no OVERALL increase in the cost of funding the relevant bank. So the above “extra cost of funding” criticism of full reserve does not stand inspection (all of which is very roughly a re-statement of the Modigliani-Miller theory).

### **The alleged shadow bank problem.**

A criticism that is sometimes made of full reserve (e.g. by Goodhart (2009)) is that if the larger banks are forced to obey the rules of full reserve, that will result in shadow banks filling the void. That is, shadow banks will up their fractional reserve or money creation activities. A similar claim is made by Diamond (2008: p.65). In fact this is not much of a problem and for the following four reasons.

1. It is absurd to implement bank regulations, and then regulate just those institutions which have the word “bank” emblazoned over their front door, while ignoring relatively large institutions which effectively ARE BANKS, but do not actually call themselves such. As Turner (2012b) put it, "If it looks like a bank and quacks like a bank, it has got to be subject to bank-like safe-guards." Moreover, regulators worldwide seem to have realised that shadow banks should be regulated (Masters



(2012)). Thus it will be assumed from now on that while there may be some small shadow banks that the authorities fail to regulate, the larger shadow banks ARE REGULATED.

2. While the shadow banking industry AS A WHOLE may easily pose systemic risks, regulating the larger shadow banks probably disposes of that risk. Put another way, governments can probably ignore small shadow banks, and better still make it abundantly clear that under no circumstances will they mount any sort of rescue of such banks. Thus taxpayers needn't be on the hook for anything here: there needn't be any subsidy involved.

3. There is a problem for small shadow banks if they want to get into the money creation business, and as follows.

Creating money involves persuading as many players as possible to accept and use one's liabilities as money. And that's an activity where size definitely pays. To illustrate (and taking the "very small" end of the scale) any individual person can create money in that they can pay for goods or services with an uncrossed cheque, and the payee can endorse the cheque and pass it to a third party. And the third party can pass it to a fourth, etc. That's all perfectly legal, and the uncrossed cheque is then in effect a form of money.

But that form of money is almost unheard of. It is extremely cumbersome and just cannot compete with a well-run form of money supplied by the state or by the commercial banking system.

Same goes for small shadow banks. They will have no problem pursuing their basic activity: connecting large borrowers with large lenders. But that process does not create money: it does not amount to fractional reserve. In contrast, it is much harder for a small shadow bank to persuade a significant proportion of actors in the economy to accept its liabilities and pass them from hand to hand. Or as Minsky (1986, p.228) put it, "everyone can create money; the problem is to get it accepted".

Of course in the world's financial centres, numerous small shadow banks will be well known to those working in those centres, and that small group of people may well treat a small shadow bank's liabilities as money. But then all sorts of strange bits of paper get treated as money

in the world's financial centres: government debt is often accepted in lieu of cash in those centres. But that is a small proportion of the total amount of money in circulation, thus it would not seriously degrade an attempt to switch to full reserve.

4. If small shadow banks do collapse in significant numbers, there is no reason in principle why government and central bank between them cannot make up for the deflationary effect of that by printing and spending new money into the economy, though clearly getting the timing and quantity of new money exactly right is not easy.

### **Is interest rate instability a problem?**

A criticism sometimes made of full reserve is that it brings interest rate instability, as indeed it does. Reason is that given a relatively stable money supply, and an increased desire to borrow money, interest rates rise. That is in contrast to the current system where central banks control or try to control interest rates. Central banks success in that endeavour is questionable, as is shown below, but certainly central banks have a finite effect on interest rates. But the latter "interest rate instability" criticism is not a strong one, and for the following reasons.

One of the main causes of the recent crisis was that there was an increased demand for funds to borrow and invest in property, yet no significant interest rate increase came about as a result because central banks were using their usual tool to control demand, that is interest rates, and neither demand nor inflation were excessive, so central banks saw no reason to raise interest rates.

In contrast, had interest rates responded to market forces, interest rates would have risen, which would have dampened the speculation at least to some extent. As to any undesirable deflationary effect that would have had, governments could easily have compensated with fiscal stimulus.

And there is actually a very long list of defects in interest rate adjustments as a tool for controlling demand or inflation and as follows.

First, several reasons are given in Werner (2010), and in the various works referred to in that work. But there are further weaknesses in interest rate adjustments as follows.

1. Adjusting interest rates is distortionary. That is, an interest rate change works only via households or firms which are significantly reliant on variable rate loans: i.e. those reliant on FIXED rate loans or not reliant on loans at all are not affected by an interest rate change. Thus this policy makes no more sense than boosting an economy only via people with black hair, with blondes, red-heads, etc waiting for a trickle-down effect.

2. The idea that there is a close relationship between interest rates and the ACTUAL availability of credit is an idea that is hardly supported by events over the last two years or so. That is rates have been at record low levels, but banks have been reluctant to lend.

3. An interest rate reduction tends to cause asset price bubbles. In contrast, a straightforward change in government net spending has less of a “bubble blowing” effect. That is, if the additional net spending is directed at a cross section of the population (not just the wealthy), there will not be a significant asset bubble effect.

4. The optimum price for borrowed money (i.e. the optimum rate of interest) is determined by the same sort of factors that determine the optimum price for concrete, steel or any other commodity: supply and demand. That is, the rate of interest is optimised when the marginal disutility of forgone consumption by savers equals the marginal utility or marginal benefit that derives from borrowing (which in the case of borrowing which is used to fund investment, equals the benefit derived from investments.)

If government interferes with this free market rate of interest, then the total amount invested will not be optimum. GDP will not be maximised.

5. Low interest rates allegedly encourage investment. Unfortunately those making investments look at LONG TERM rates, not the fact that the central bank has recently cut rates and will probably raise them again in two years' time. And that applies both to firms which invest and people who borrow with a view to buying houses.

While most people will not buy a house just because interest rates have dropped for a couple of years, there ARE those who are attracted by temporarily reduced rates, for example the so called “No Income No Job or Assets” mortgagors. So in that the “low interest rates encourages investment” argument DOES WORK, it works to a significant extent by encouraging irresponsibility: not a good argument for interest rate adjustment.

6. The idea that reduced interest rates encourage investment is of questionable benefit given the fact that in a recession, (certainly in SHORT recessions or the initial stages of a longer recession) there is more than the usual amount of capital equipment lying idle! Of course it takes TIME to manufacture or create real investments like machinery or factories, and assuming an economy will return to trend growth shortly after a recession, employers need to make sure they are not SHORT of capital equipment after a recession. But employers do not need governments to tell them this. Nor will small inducements like 2% changes in interest rates do much to optimise any given employer’s investment strategy.

7. Radcliffe Report on monetary policy in the U.K. published in 1960 concluded that ‘there can be no reliance on interest rate policy as a major short-term stabiliser of demand’.

8. There seems to be no relationship between base rates and rates charge by credit card operators. See UK CreditCards (2009). Indeed there even seems to be an INVERSE relationship in that in 2011 when central bank rates were at a record low, credit cards rates were at a record high (Insley (2011)).

9. Keynes said, “I am now somewhat skeptical of the success of a merely monetary policy directed towards influencing the rate of interest...it seems likely that the fluctuations in the market estimation of the marginal efficiency of different types of capital...will be too great to be offset by any practicable changes in the rate of interest.” Keynes’s General Theory – near the end of Ch 12.

10. It is sometimes argued that monetary policy (interest rate adjustments at any rate) can be made quickly, i.e. fiscal changes take longer to implement.

That point is irrelevant. The IMPORTANT question is TOTAL TIME LAG between the decision to implement a policy and the actual effect.

11. Where government borrows, some of the money is inevitably lent by foreigners. But there is a problem there, which is that money flowing into a country from abroad temporarily boosts living standards in the country. And that standard of living boost will be reversed if and when the money is repaid.

Now those standard of living “gyrations”, have nothing to do with solving the basic problem, namely raising employment. The gyrations are an unnecessary and complicating factor. Plus, the temporary boost to living standards poses big temptations for politicians: it enables them to raise living standards while in office, while the mess is left for their successors to sort out.

A further point in connection with “foreign” effects is that the effect of interest rate adjustments is hindered by foreign currency movements. That is, a rise in interest rates designed to damp down an overheated economy draws foreign capital into the relevant country, which reduces the desired effect. In contrast, a straight cut in government spending has the opposite effect, if anything, on internationally mobile capital. That is, given a cut in demand in a particular country, capital will tend to leave the country in search of better opportunities elsewhere.

12. There is disagreement amongst economists as to how effective monetary and fiscal policies are. That little problem can be solved by doing both policies at once. If one policy is much more effective than another, it doesn't matter: the COMBINATION is almost guaranteed to work.

Conclusion: the list of defects in interest rate adjustments as a regulatory tool is a long one.

## References.

Diamond, D.W. & Dybvig, P.H., 2008. Banking Theory, Deposit Insurance, and Bank Regulation. *The Journal of Business*, Vol. 59, No. 1 pp. 55-68.

Friedman, M., 1960. *A Program for Monetary Stability*. Fordham University Press.

Goodhart, C., 2009. Appendix : The Boundary Problem in Financial Regulation. In: *The Fundamental Principles of Financial Regulation*. Centre for Economic Policy Research.

<http://www.princeton.edu/~markus/research/papers/Geneva11.pdf>

Haldane, A., 2011a. *Control Rights and Wrongs*. Bank of England.

<http://www.bankofengland.co.uk/publications/Documents/speeches/2011/speech525.pdf>

Haldane, A., 2011b. What is the contribution of the financial sector? Vox.

<http://www.voxeu.org/article/what-contribution-financial-sector>

Haldane, A., 2012. *The Dog and the Frisbee*. Bank of England.

<http://www.bankofengland.co.uk/publications/Documents/speeches/2012/speech596.pdf>

Hayek, F.A., 1931. *Prices and Production*. New York: Augustus M.Kelley. <http://mises.org/books/pricesproduction.pdf>

Huber, J. & Robertson, J., 2000. *Creating New Money*. London: New Economics Foundation.

<http://www.jamesrobertson.com/book/creatingnewmoney.pdf>

ICB 2011. *Independent Commission on Banking Final Report*.

[http://www.ecgi.org/documents/icb\\_final\\_report\\_12sep2011.pdf](http://www.ecgi.org/documents/icb_final_report_12sep2011.pdf)

Insley, J., 2011. Credit card interest rates hit 13-year high, analysis shows.' *The Guardian*.

<http://www.guardian.co.uk/money/2011/may/05/credit-card-interest-rates-13-year-high>

Kay, J., 2009. *Narrow Banking: The Reform of Bank Regulation*.  
<http://www.johnkay.com/wp-content/uploads/2009/12/JK-Narrow-Banking.pdf>

Keen, S., 2012. *Debtwatch Manifesto*.  
<http://www.debtdeflation.com/blogs/2012/01/03/the-debtwatch-manifesto/comment-page-5/#comments>

Keynes, M., 1936. *General Theory of Employment, Interest, and Money*.  
 London: Macmillan.

King, M., 2010. 'Banking: From Bagehot to Basel, and Back Again.'  
<http://www.bankofengland.co.uk/publications/Documents/speeches/2010/speech455.pdf>

Kotlikoff, L., 2010. *Jimmy Stewart is Dead*. Hoboken, New Jersey: John Wiley & Sons.

Kotlikoff, L., 2012. 'The Economic Consequences of the ICB Commission'. London: Civitas.

Kregel, J., 2012. *Minsky and the Narrow Banking Proposal*. Levy Economics Institute of Bard College Public Policy Brief No 125, 2012.  
[http://www.levyinstitute.org/pubs/ppb\\_125.pdf](http://www.levyinstitute.org/pubs/ppb_125.pdf)

Mallaby, S., 2012. "Regulators should keep it simple". *Financial Times*, 5th September 2012. <http://www.ft.com/cms/s/0/697e5ad4-f5ec-11e1-a6c2-00144feabdc0.html>

Masters, B., 2012. Regulators Peer into Financial Shadows. *Financial Times*. <http://www.ft.com/cms/s/0/36878ee2-3175-11e2-b68b-00144feabdc0.html#axzz2FbKhqaly>

Mathiason, N., Newman, M. and McClenaghan, M., 2012. 'Revealed: The £93m City lobby machine.' Bureau of Investigative Journalism. London. <http://www.thebureauinvestigates.com/2012/07/09/revealed-the-93m-city-lobby-machine/>

Miles, D., 2011. *What is the Optimal Leverage for a Bank?* Vox.  
<http://www.voxeu.org/article/what-optimal-leverage-bank>

Minsky, H. P., 1986. *Stabilizing An Unstable Economy*. New Haven: Yale University Press.

Minsky, H.P., 1995. Would Universal Banking Benefit the US Economy? Jerome Levy Economics Institute.  
[http://digitalcommons.bard.edu/cgi/viewcontent.cgi?filename=1&article=1050&context=hm\\_archive&type=additional](http://digitalcommons.bard.edu/cgi/viewcontent.cgi?filename=1&article=1050&context=hm_archive&type=additional)

Peston, R., 2012. *How Do We Fix This Mess?* Hodder & Stoughton.

Rogoff, K., 2012. *Ending the Financial Arms Race*. Project Syndicate.  
<http://www.project-syndicate.org/commentary/ending-the-financial-arms-race-by-kenneth-rogoff>

Selgin, G., 2012. Central Banks as Sources of Financial Instability. *The Independent Review*, v. 14, n. 4.

Selgin, G., 2012. Is Fractional-Reserve Banking Inflationary? *Capitalism Magazine*.  
<http://capitalismmagazine.com/2012/06/is-fractional-reserve-banking-inflationary/>

Torres, C., 2009. 'Fed Focuses on Consumer, Corporate Loan Rate Spreads.' *Bloomberg*.  
[http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a64X\\_CFyfh\\_M](http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a64X_CFyfh_M)

Turner, A. 2012a. '*Monetary and Financial Stability*.'  
<http://www.fsa.gov.uk/static/pubs/speeches/1102-at.pdf>

Turner, A., 2012b. '*The Regulation of Shadow Banking*', Financial Services Authority.  
<http://www.fsa.gov.uk/library/communication/speeches/2012/0902-at.shtml>

UK CreditCards, 2009. 'No link between credit card APR and Bank rate, says trade group.'  
<http://uk.creditcards.com/credit-card-news/credit-card-interest-rates-bank-rates-1360.php>

Wall Street Journal, 2012. Liberating Money Funds  
[http://online.wsj.com/article/SB10001424127887324556304578119443428082224.html?mod=WSJ\\_Opinion\\_AboveLEFTTop](http://online.wsj.com/article/SB10001424127887324556304578119443428082224.html?mod=WSJ_Opinion_AboveLEFTTop)



Werner, R. A., Dyson, B., Greenham, T., and Ryan-Collins, J., 2010. 'Towards a Twenty-first Century Banking and Monetary System'. <http://www.positivemoney.org.uk/wp-content/uploads/2010/11/NEF-Southampton-Positive-Money-ICB-Submission.pdf>

Wolf, M. (2012). 'Seven Ways to Clean Up Banking Cesspit'. *Financial Times*. <http://www.ft.com/cms/s/0/7a95df3e-cb50-11e1-b896-00144feabdc0.html#axzz20UIIPDuL>