Our absurd fractional reserve bank system.

Musgrave, Ralph S.

27 June 2021

Our absurd fractional reserve bank system.

Ralph Musgrave.

Abstract.

Fractional reserve banking is inherently risky, which in large part explains the hundreds of bank failures throughout history and the 2007/8 bank crisis which lead to catastrophic economic and social damage. So fractional reserve must have some amazing benefits to make up for the latter shambles, or so you might think. In fact the alleged benefits of fractional reserve as compared to the alternative, namely 100% reserves are unimpressive to put it politely. Three of the main alleged benefits are examined below: first, the fact that fractional reserve banks create liquidity / money, second that it gives private / commercial banks more flexibility and third that it involves lower interest rates.

_____

The existing bank system is known as “fractional reserve”(FR), a system where the amount of cash that private / commercial banks (henceforth just “banks”) have is a small fraction of their deposit liabilities, i.e. the amount of cash which depositors are entitled to withdraw instantaneously or at short notice: an obviously risky strategy. The main alternative to FR, is sometimes called “100% reserves” where 100% of bank deposits (i.e. money which depositors want to be totally safe) must be backed by cash / reserves at the central bank. 100% reserves is also known as “full reserve”, “Sovereign Money” and “narrow banking”. The phrase “100% reserves” will be used below. (The term was used by Friedman (1960, Ch3) when advocating the idea).

For some dictionary definitions of FR and some more information on it, see Appendix 1 below.

Under FR, people effectively have their bank lend on their money without such people taking any risk because they are protected by deposit insurance and bank bail outs. That is unacceptable because those people are effectively money lenders: they are into ***commerce***, and it is widely accepted that those who are into commerce should carry relevant risks. And that’s exactly what happens under 100% reserves: those who want their money loaned on or invested buy into mutual funds of their choice (“unit trusts” in UK parlance) and carry relevant risks. (There is more on that point below.)

Incidentally, any readers wishing to cite the recently fashionable view that commercial banks create money rather than lend on depositors' money, please see Appendix 2.

The major weakness in FR, as will be obvious from the above description is that if depositors lose faith in a bank and withdraw too much money, or the bank hemorrhages money for some other reason, the bank may then not be able to come up with enough money, in which case it is bust. The result has been hundreds of bank failures over the centuries and the 2007/8 bank crises which caused a good ten million worldwide to lose their jobs and which was followed by a ten year long recession. In contrast, it is virtually impossible for 100% reserve banks to fail. And any idea that recent improvements in bank regulations have solved the problem is naïve, as the chairman of the main UK investigation in to banks after the 2007/8 crisis said (Vickers (2017).

So FR must have some truly impressive advantages to make up for the latter deficiencies, or so you might think. In fact the alleged merits of FR are feeble.

Perhaps the most widely quoted alleged merit is that FR creates liquidity / money. Indeed, that's the main merit cited in the abstract of Diamond and Rajan (1999), a paper which has been cited over five hundred times in the literature.

That ability of banks to create money actually derives from the very same characteristic of FR than renders them "fragile" (to use Diamond and Rajan's word). That

characteristic is often called “borrow short and lend long” (also known as “maturity transformation”) .

That is, and to illustrate, if someone deposits £X at a bank while the bank lends out £X (to take a simple example) then the borrower has the use of £X, while the bank tells the depositor that their £X is still available! Hey presto: the money supply rises by £X! Plus the bank has accepted a short term loan from a depositor and made a long term loan to say a mortgagor.

Indeed, the failure of Northern Rock illustrates that it is borrow short and lend long which is the problem rather than deposits as such. Northern Rock relied on loans from the money market (i.e. from other banks and other large corporations). But those loans are always short term.

Anyway, and to repeat, the big alleged merit of FR is that it creates money. Well one rather obvious defect in that alleged merit is that the amount of money created by banks in the aftermath of the 2007/8 crisis and Covid has been totally inadequate for dealing with those problems: governments and central banks have had to create astronomic and unprecedented amounts of money in addition in an attempt to deal with the latter problems.

Thus if the money creating abilities of banks and the associated risks were disposed of entirely, it would be very easy for governments and central banks to make good any

loss of money creation by simply doing a bit more of their own money creation!

And the latter money creation costs nothing: it can be done simply by pressing buttons on computer keyboards. Plus there is no good reason to pay interest to those holding the resulting increased stock of reserves as advocates of Modern Monetary Theory and Friedman (1948, section II) said.

Moreover, 100% reserves is not entirely devoid of liquidity creation: that is, where anyone buys into one of the mutual funds available under 100% reserves (funds which are actually available anyway) their investment is more liquid normally than where they lend or invest on a peer to peer basis. That is, anyone buying into a mutual fund is normally able to sell their stake for an amount which is close to what they paid for it, which is one of the defining characteristics of liquidity (see Appendix 3).

Should taxpayers protect those who are into commerce?

Another big problem with banks lending on depositors' money is this. Under FR, deposits are totally safe (at least up the deposit insurance limit – e.g. €100k in the EU). But depositors can also earn interest on their deposits. However, lending out money, either on a peer to peer basis or via some intermediary like a bank, mutual fund, stockbroker or private pension fund is (to repeat) ***commerce***, and it is not the job of

governments or taxpayers to protect those who are into commerce! And that is a defect in FR which 100% reserves can avoid.

Conclusion: the “money creation” excuse for FR is feeble.

Flexibility.

A second alleged benefit of FR is that it gives banks flexibility: that is, if a bank spots a larger than normal number of viable borrowers, it might seem it is better able to lend to those borrowers (because it can create money to lend out of thin air) as compared to where the bank has to obtain money from savers before lending, as per 100% reserves. In fact there are two weaknesses in that argument.

First, under 100% reserves, there’d be nothing to stop a bank (or perhaps I should say a mutual fund) borrowing from other banks or other institutions in order to be able to lend to the latter viable borrowers. Indeed, that is in practice what a bank has to do under FR! That is, if a bank under FR makes more loans than usual, it will probably then owe reserves to other banks and will need to borrow from other banks (or from the central bank) and pay interest for that privilege.

Second, what banks in practice do with the flexibility they have under FR is to greatly expand their lending in a boom and then cut down on lending or even call in loans during a recession. I.e. they act in a pro-cyclical manner: exactly what

is not needed. Thus if the much vaunted flexibility that banks have under FR was withdrawn, there would probably be overall benefits.

Of course that's not to say that 100% reserves would mean a complete end to boom and bust, but boom and bust would certainly be ameliorated. As former governor of the Bank of England, King (2010, passage starting "And we saw…") said, the effects of a bank crisis are much worse than the effect of a stock market set back, which is all we'd get from a series of silly loans being made under 100% reserves. I.e. in the latter scenario, all that would happen is that those who had bought into the above mutual funds would see the value of their stakes in those funds fall.

Interest rates are lower under FR?

The third and final alleged merit of FR is the idea that it involves lower interest rates than 100% reserves. One reason for that idea is that FR appears to make use of or lends out funds (i.e. deposits) which would otherwise be sitting around doing nothing.

Perhaps the main flaw in that idea is that money nowadays simply consists of numbers or book-keeping entries (done on computers nowadays of course rather in paper ledgers). Numbers produced from thin air are not, at least from the point of view of the country as a whole, any sort of real

wealth. That's as distinct from various bank systems through history where money has consisted of gold or some other rare metal. To illustrate with an extreme example, if the average UK household was not willing to go out and spend until it had at least £100k in the bank, creating £100k and crediting it to the bank account of every household would be easy. But any idea that simply crediting £100k to everyone's bank account makes the country any better off in real terms is obvious nonsense.

In fact the cost of funding loans under FR and 100% reserves are on the face of it much the same. That is, under FR, risks are covered by the deposit insurance system, whereas under 100% reserves, risks are covered by the actual individuals who buy into mutual funds. And assuming both those two gauge the risks correctly, then they should charge the same amount!

Second, even if 100% reserves did raise interest rates, low rates are not an unmixed blessing: they encourage asset price speculation. Plus in the 1990s, mortgagors in the UK paid almost three times the rate of interest they do nowadays, yet growth was perfectly respectable in the 1990s. Plus house prices were a fraction of what they are nowadays in real terms.

Third, it is widely accepted in economics that GDP is maximised where prices (including the price of borrowed money) are at the free market rate unless there are clear

reasons for thinking otherwise. Now a system (i.e. FR) where the state (i.e. taxpayers) stand behind those individuals (mentioned above) who are into commerce is not a free market scenario! Ergo that scenario does not maximise GDP. Or put it another way even if FR does result in lower interest rates, that apparent benefit derives from taxpayer backed assistance for lenders, i.e. depositors. It might as well be argued that taxpayer backed assistance for house building or car manufacturing cuts the real cost of building houses or making cars.

Some readers may wish to object to the latter point about GDP on the grounds that maximising GDP, in view of the environmental harm done by more GDP should no longer be an objective. That is a reasonable point, but the answer to it is that there is nevertheless much to be said for maximising output per hour on the assumption that the percentage increase in output per hour is matched by a similar cut in the number of hours worked per week. The net effect of that on GDP would be zero.

Put another way, if everyone can work fewer hours for the same standard of living, that is surely beneficial.

Conclusion.

The FR versus 100% reserves argument has been going on for centuries: certainly as far back as Ancient Athens and

possibly a thousand or two years earlier (e.g. see Fuller (2019)).

So what are the chances of the economics profession being persuaded by the above arguments to the effect that 100% reserves is better than FR? The answer is: unfortunately not all that great. And that's for two reasons.

First, the current system under which private banks take big risks and keep the profits when that pays off, while sending the bill to the taxpayer when it doesn't suits banks just fine. And they devote a huge amount of effort to making sure everyone, particularly politicians "see sense". The UK finance industry spends roughly £100 million a year on lobbying according to Mathiason and Newman (2012).

Second, economists, while they like to claim to be interested in original ideas and like to claim to be "progressive" are actually a rather conservative lot, as pointed out by Mitchell (2011). They are never all that keen on anything that fundamentally challenges the conventional wisdom or upsets the apple cart.

Indeed some of the objections to 100% reserves made by so called "professional" economists are laughable: see section two of Musgrave (2018) for about forty none too clever objections.

And finally, this article is not an attempt to argue for a ban on all forms of money other than state created money: e.g. it is

not the intention to suggest that Bitcoin should be banned (though clearly there could be other reasons, e.g. environmental reasons for banning Bitcoin)

The point is that having the availability of a totally safe form of money is a basic human right, and it is government's job to ensure that availability. The argument is over the question as to what form that totally safe form of money should take: state created money (as per 100% reserves) or private / commercial bank created money which is backed by the state. The former is the option advocated here.

_____

Appendix 1. Definitions of fractional reserve.

The online Investopedia definition of FR is: "…a system in which only a fraction of bank deposits are backed by actual cash on hand and available for withdrawal." While The Oxford Dictionary of Economics (third edition, 2009) is much the same: it starts its definition with: "A banking system in which banks hold a minimum reserves of cash or highly liquid assets equal to a fixed percentage of their deposit liabilities."

For the benefit of those new to this subject, perhaps the only part of the above definitions which needs clarification involves the word "cash". Banks, needless to say, do not keep a large amount of actual physical cash: they only keep enough to meet what is they think is likely to be withdrawn

each day. The word “cash” in the above definitions refers for the most part to sums held in accounts at the central bank – sums which are sometimes also referred to as “reserves”: hence the phrase “fractional reserve”.

Appendix 2. Do banks lend on depositors’ money?

It has recently become fashionable to claim that banks create money rather than lend on depositors’ (and other funders’) money. I.e. the claim is that banks create money rather than intermediate between lenders and borrowers.

An article often quoted in support of the latter claim is McLeay et al (2014). But ironically, the latter article does not actually support the claim that banks create money ***rather than*** intermediate: in its second sentence, the article says that banks ***both*** create money ***and*** intermediate! And that is quite correct.

In particular, a bank cannot just create and lend out money without limit without getting money in from depositors, bond holders or shareholders, else it will run out of reserves: not a good position to be in for too long. Ergo banks do actually need depositors’ money, i.e. in effect, they do lend on depositors’ money.

Appendix 3. Are liquidity and money the same thing?

The words liquidity and money have been used more or less interchangeably above. Is that is justified? The answer is that it is pretty much. The Oxford Dictionary of Economics starts its definition of liquidity with, “The property of assets, of being easily turned into money rapidly and at a fairly predictable price.” Thus an asset which can easily be turned into money and at a VERY predictable price is near enough a form of money.

Government debt which is near maturity has that property, and indeed that sort of government debt is used in lieu of money in the World’s financial centres.

The fact that government debt is not classified as money for the purposes of the official money supply figures that every country produces periodically is irrelevant: the reality is that government debt, and some other assets, can to all intents and purposes be used as money.

_____

References.

Diamond, D.W. and Rajan, R.G. Liquidity Risk, Liquidity Creation and Financial Fragility: A Theory of Banking. NBER Working Paper 7430. https://ideas.repec.org/p/nbr/nberwo/7430.html

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

Friedman,M. (1948). A Monetary and Fiscal Framework…". https://miltonfriedman.hoover.org/internal/media/dispatcher/214916/full

Fuller, E.W. (2019). 100% Banking and Its Advocates: A Brief History. Cobden Centre. https://www.cobdencentre.org/2019/10/100-banking-and-its-advocates-a-brief-history/

King, M. (2010). From Bagehot to Basel, and back again. Speech by Mervyn King at the Second Bagehot Lecture, Buttonwood Gathering, New York, 25 October 2010. https://www.bis.org/review/r101028a.pdf

Mathiason, N and Newman, M. (2012). Finance industry's multimillion-pound lobbying budget revealed. Guardian. https://www.theguardian.com/politics/2012/jul/09/finance-industry-lobbying-budget-revealed

McLeay,M., Radia, A. and Thomas, R. (2014). Money creation in the modern economy. Bank of England first Quarterly Bulletin, 2014). https://www.bankofengland.co.uk/quarterly-bulletin/2014/q1/money-creation-in-the-modern-economy

Mitchell, B. (2011). When you've got friends like this … Part 6. http://bilbo.economicoutlook.net/blog/?p=15881

Musgrave, R. (2018). The Solution is Full Reserve / 100% Reserve Banking". KSP Books. http://books.ksplibrary.org/978-605-2132-59-3/

Vickers, J. (2017). Storm is Coming. Express. https://www.express.co.uk/finance/city/752968/Financial-disaster-looming-banks-NOT-prepared-Sir-John-Vickers