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On some monetary issues, virtually all present-day Austrian economists agree. Central banks and their specific product, fiat paper money, are inflationary institutions that disrupt the economy and serve no other purpose but redistributing income within society. Fiat paper money is an inherently statist institution because it has to be constantly protected through legal-tender laws and other forms of government intervention. It can be produced in virtually unlimited quantities by the printing press. This monetary inflation creates moral hazard for the prospective beneficiaries, and wrecks the economy through booms and busts. Central banks should therefore be abolished as quickly as possible.

Superior alternatives are readily available. In particular, metals such as gold and silver can be produced on purely free-market terms, that is, without requiring any form of legal privilege, and their quantities depend far less on any human being’s arbitrary whims. No special reform measures are required to set up a metallic currency system, because gold and silver coins are likely to emerge spontaneously on a truly free market. The main element of a libertarian monetary reform is therefore to immediately abolish all forms of currency control (such as legal-tender laws, taxes on metals, and so forth). Moreover, all governments should give back the gold and silver that they stole from their citizens when they established their national fiat monies.

On one vital point, however, Austrian economists have reached no consensus, and this disagreement has resulted in a lively debate in recent years. This debate does not relate to problems of money production and currency, but refers more narrowly to the production of money titles by financial service providers such as commercial

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banks. To understand the issue, it is useful to distinguish three types of financial services or “banking.”

**Credit Banking**

Banks act as financial intermediaries when they borrow money from person A and then lend that money to person B. Note that in this business of credit banking, it is at all stages clear who owns the money. Before lending his money to the bank, A owns all rights to the money exclusively. By lending it to the bank, A gives up the right to use the money, for the time stipulated in the contract, and grants that right to the bank. The bank then lends the money to B, thereby renouncing its right to use the money to B for the time stipulated in their contract. At the present time, then, B is the rightful owner of the money.

At a future point of time, contradictory ownership claims to the money might come into existence if the credit given by A to the bank has a shorter duration than the credit given by the bank to B. To fulfill such contradictory claims would be a physical impossibility. There is only one physical object (the money), but two or more persons desire to use it for different purposes. From a juridical point of view, contradictory claims usually give rise to litigation. Economically, they represent a state of disequilibrium because at least one of the contending parties will find its projects thwarted.

But, again, at the present time, only B can make a valid claim to the money. There are no contradictory claims at the beginning of the credit transaction. And the bank will seek to prevent litigation in the future by matching the duration of its credit to B, either by obtaining a prolongation from A or by obtaining a credit from another customer.

**Deposit Banking**

Banks engage in deposit banking when they accept the money of a customer to store, for example, because the customer deems it more secure in the bank than in his safety box at home. In this case the bank essentially acts as a warehouse, which does nothing but keep the money and issue a receipt or title to the depositor. It has no right to use the money. Rather, the customer retains all rights for himself and wants the bank to deliver a storage service only. This service will usually be paid for, although it is conceivable, for example, that the banks render it on a complimentary basis for large credit customers. Clearly, in deposit banking there can be no contradictory claims. At all times, the customer retains full ownership and control over the money.

Having one’s money ready to sell at any time is how a money owner uses his money. It follows that depositors use their money all the time. It is a matter of mere technical difference whether they keep the money in their wallets or whether they entrust a
bank with safeguarding it. This choice does not affect their behavior. In both cases, they plan and act in the firm belief that they can dispose of their money at any moment.

Depositors can sell their deposited money in two ways. Either they can present their title to the bank and demand redemption, and then buy other goods and services with the redeemed money. Or they can buy those other goods and services in exchange against the title itself, thus avoiding the trip to and from the bank. In order to facilitate the latter type of transaction, banks usually standardize and improve the titles in various ways. For example, they create paper titles over fixed amounts of silver (such as five, ten, and fifty ounces), they use special paper to make counterfeiting more difficult, and so on. In this way the traditional banknote came into being. Yet many other devices, such as a statement of (checking) account or, more recently, the so-called smart card, have the same purpose: they are titles to a certain sum of presently existing money.

Note that in deposit banking all titles are fully covered by the amount of money to which they give claim. A deposit bank is necessarily a “one hundred percent reserve bank,” just as any warehouse operates on a one hundred percent reserve basis. And a bank that engages in both credit banking and deposit banking is also a one hundred percent reserve bank, because all the titles to present cash that it has issued are, at any point in time, fully covered by money in its safe. There can be no contradictory claims on behalf of the money stored in such a bank’s vaults. Therefore, neither deposit banking nor credit banking per se gives rise to litigation, and neither one implies economic disequilibrium.

Fractional Reserve Banking

Banks engage in fractional reserve banking when they use deposited money to grant credits. They do so either by lending out deposited money directly or by producing money titles in excess of the money they have in their vaults. For example, the customers of the FR Bank (FRB) have deposited $1,000, and the FRB has issued corresponding statements of account. Now the bank grants a $500 credit to Johnson in the form of a newly “created” bank account with a $500 balance. This action immediately creates a situation in which contradictory claims to physical dollar bills exist. The depositors have present claims to $1,000 because they did not renounce their title to the full amount of their deposits. But Johnson has a present claim to another $500. Clearly, it is impossible for all these claims to be satisfied with the existing quantity of dollars in the vaults of the bank.

On the juridical level, this situation is likely to end up in litigation. On the economic level, it implies right now a disequilibrium, because the depositors act as if they controlled the full amount of their deposits, and Johnson acts as if he controlled another $500. The members of our little community thus behave as if they could rely on more resources than really do exist. In short, they have fallen prey to an illusion. The
illusion can persist for a while because of the following circumstance: the depositors rarely redeem all of their titles. They always keep some banknotes and other titles in their wallets and leave the corresponding money in the bank. That is the money the banks can use in the fractional reserve business.

The Debate


Deviation from this orthodoxy was led by Lawrence H. White in his 1984 book *Free Banking in Britain* and in later books (1989, 1999). White’s case for fractional reserve banking was extended and systematized by his student George Selgin (1988) in *The Theory of Free Banking*, as well as in a later collection of articles (1996). Several other authors joined their ranks but did not exercise as much influence. Apart from Rothbard (1988) and Walter Block (1988), hardly anybody’s writings defended the orthodox position in the late 1980s and early 1990s. Thus, the case for fractional reserve free banking was on the verge of becoming a tenet of the Austrian mainstream, at least as far as published work was concerned. It was this very success of White and Selgin that aroused interest in their work and led other scholars to critically examine their arguments.2

So far, White and Selgin have responded only very incompletely to these critics.3 Therefore, in what follows, I shall limit my exposition to some major arguments that make a compelling case against fractional reserve banking.

Sustainability and Institutional Deterioration

The first thing to note is that fractional reserve banking is not unrelated to central banking, fiat paper money, and international monetary institutions such as the International Monetary Fund. Ultimately, these institutions are abortive attempts to solve the problems of fractional reserve banking by centralizing cash reserves or by refusing redemption of money titles.

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1. Mises originally conceded some advantages to fractional reserve banking, but he later repudiated that concession. On balance he was always an outspoken opponent of it. See on this question the important work by Salerno (1993), in particular pp. 139ff. See also Hülsmann forthcoming.


3. See, for example, Selgin and White 1996 and Selgin’s article in the present issue of this journal.
The main problem of fractional reserve banks is, of course, that they are virtually bankrupt, because at any point of time they have more cash liabilities than they have cash in their vaults. If too many customers demand redemption of their titles, the bank is doomed. One might grant that the bank tries to keep a sufficient amount of cash on hand at all times to satisfy demands for redemption. But exactly which amount of cash is “sufficient”? Because of the uncertainty inherent in all human undertakings, there is no cognitive way by which the bank can answer this question. All it can do is to proceed by trial and error. And in this process it will seek to diminish its reserve ratio as far as possible, because doing so is one way of standing up to the competition of other banks. Clearly, this endeavor enhances the likelihood that one day it will be left with less than sufficient cash to redeem the titles it has issued.

Moreover, the failure of one fractional reserve bank can trigger the failure of many other fractional reserve banks through a domino effect. Many banking crises in the past have indeed featured a domino effect, which resulted eventually in the breakdown of the entire banking system.

The vulnerability of the entire banking system was a powerful rationale both for the regulation of the banking industry and for the establishment of (private or public) central banks, which were supposed to provide the system with “liquidity” in times of distress. However, the central bank’s cash pool solves “liquidity problems” only for a while. Once the commercial banks get used to the ready supply of money in emergency situations, they lose fear of such situations and start issuing titles on an even larger scale! Thus, rather than solving the problems of fractional reserve banking, central banks merely create moral hazard and multiply those problems.

The same mess resulted from all attempts to solve the problems of central banks through international central banks, fiat paper money, and other means. In short, fractional reserve banking is unsustainable, and it cannot be saved or improved by other schemes. Yet it creates an open-ended agenda, which in the past has been seized upon by the enemies of private property and free enterprise to create more and more institutions of centralized political decision making.

Alleged Benefits of Fractional Reserves

The only permanent beneficiaries of fractional reserve banking are the bankers themselves, who are protected by market-entry and other regulations, and the various governments, who always have a keen interest in ready access to “additional” money. To be sure, the provision of such money is a service that one hundred percent reserve banks cannot provide.

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4. At this point, advocates of fractional reserves usually point to the legal distinction between bankruptcy and “illiquidity.” I am unable to see any economic difference between the two.
Attempts to balance the costs and benefits of fractional reserve banking “from an economy-wide perspective” only obscure the special-interest character of this business scheme. The plain fact is that fractional reserve banking creates winners and losers. Indeed, in economic science, the terms costs and benefits refer to individual human action. Costs are the opportunity costs of a given individual’s action, and benefits too are always benefits that accrue to a given individual. If an institution creates benefits for some members of society whereas it worsens the situation of other persons, then there is simply no basis for the assertion that, “from an economy-wide perspective,” the benefits justify the costs or risks or anything else.

Such is the case with the alleged benefits of fractional reserve banking. Let us assume for the sake of argument that fractional reserve banking stimulates industrialization. It does not follow that this type of business is a good thing. Some persons—for example, the bankers, propertyless entrepreneurs, and the government—will profit from a quicker, bank-financed industrialization. However, other persons—for example, property owners, capitalist-entrepreneurs, and artisans using traditional technology—will be disadvantaged by such artificial growth. There is no scientific basis for the assertion that the first group is to be preferred over the second.

Moreover, although it is probably true that fractional reserve banking promotes industrialization, it is not true that it promotes economic growth. Growth depends, to be sure, on what is “more” or an “improvement” for the individual actors. Yet whatever the individual value scales may be, growth depends on the available quantities of factors of production and on the adroitness with which those factors are combined. Clearly, printing more money titles does not increase the quantities of factors needed for production, nor does it improve entrepreneurial ability. It follows that, at best, fractional reserve banks set the economy on a different growth path. At best, they rechannel income so that a different type of growth obtains, but they do not and cannot increase the overall growth of the economy.

It is also wrong to suppose that fractional reserve banks are particularly well suited to “adjust” the supply of money in response to prior changes in the demand for money balances. The reason is that no such special adjustment is necessary in the first place. That somebody has an increased demand for money means that he is willing to pay a higher price to obtain money or that he requires a higher price for the money he sells. In both cases, the increased demand ipso facto increases the purchasing power of money, thus equilibrating demand and supply of money. And the same thing holds true, of course, for the case of a reduced demand for money.

Therefore, the supply of money does not have to be adjusted to the demand for money. Unlike all other commodities, money itself constantly adjusts to the conditions of the market. The services rendered by any unit of money are constantly adjusted under the impact of changes in the demand for and supply of money. Of course, this self-adjustment does not work out to everybody’s benefit. No adjustment does, and no institutional arrangement such as fractional reserve banking can change this fact.
Fractional Reserves and the Business Cycle

It follows that there is no such thing as an increase in the supply of fiduciary (that is, fractional reserve) money titles “offsetting” a prior increase in the demand for money. Increases in the demand for money offset themselves. The real impact of the creation of additional fiduciary titles is twofold.

On the one hand, the creation of additional fiduciary titles reduces the purchasing power of money—an effect shared with increases in the supply of money proper. On the other hand, however, and in distinct contrast to increases in the supply of money proper, additional fiduciary titles set in motion a business cycle. As already mentioned, as soon as those titles are issued, people start acting in incompatible ways. This reaction is precisely what is at the heart of the state of affairs that economists call disequilibrium.

An increase in the supply of money proper does not entail a disequilibrium, because the market participants can anticipate the impact that this additional quantity of money will have on prices and because it is usually clear who owns each single money unit. The market participants can also anticipate the impact that the creation of additional fiduciary money titles will have on money prices. However, although it is usually clear who owns which title, it is not at all clear who owns the money to which these titles refer. There are more titles than money. Here lies the contradiction. Here is the root of the disequilibrium entailed by fractional reserve banking.

Paul has $1,000 booked on his checking account. All his business ventures and all his consumption spending are based on what he thinks his assets are, and among them, he believes, are $1,000. Tim thinks and behaves along the same lines. He has $2,000 booked on his checking account. However, the bank in fact has only $500 in its vaults. It is a fractional reserve bank; its entire business is based on the hope that Paul and Tim combined will never redeem too many of their titles. Does it matter, as long as the scheme is successful? Is reality something different from what people believe reality to be?

Advocates of fractional reserve banking implicitly endorse the view that reality is what people believe reality to be. From the obvious fact that he who holds a money title desires to own that title they infer that people acquire money titles not because it is a convenient means to own money but because they want to own the titles per se. Hence, there is in their eyes no fundamental difference at all between a unit of money and a title referring to the money. Both the money proper and the title are forms of “money.” They differ from one another only in degree, not in kind.

I contend that this belief is an absurdity that needs only to be spelled out to become obvious. There is a fundamental difference between a piece of property and a

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5. Strictly speaking, this statement holds true only for commodity money, not for fiat money. See Hülsmann 1998. The distinction can be neglected here because we are exclusively interested in the differences between increases in the supply of money proper and increases in the supply of money titles.
title, for example, between an ounce of gold and a banknote over an ounce of gold, or (today) between a dollar bill and a check that gives one a right to a dollar bill. Similarly, there is a fundamental difference between a title that is redeemable now and a title that becomes redeemable in the future. Only plain, physical property can in fact be saved or invested, whereas the use of (instantly redeemable) money titles merely makes us think that we have saved or invested something.

By its very nature, fractional reserve banking brings about a difference between what exists and what people think exists. It makes people think that they are better off than they really are—and that conviction sets in motion the boom phase of the business cycle. Yet sooner or later comes the bust, when they discover that in their ventures they relied on things that do not exist.

**Honest Fractional Reserve Banking**

Fractional reserve banking is nothing but a large-scale Ponzi scheme. It enriches some at the expense of others. It brings about economic disruptions and serves as the handmaiden of governments and other vested interests.

The best case for fractional reserve banking invokes freedom of choice and contract. Should fractional reserve banking be outlawed if all parties concerned know what they are doing? No, it should not be, because no law should suppress any foolish activity just because it is foolish. But let us be more specific about what “know what they are doing” would entail. Fractional reserve banks would have to use a different language than they commonly use, because words such as “deposit” are deceptive. They would have to make it clear that money “deposited” with them is in fact a credit of unspecified duration. And the “bank notes” they issue would have to be presented not as money titles but as some sort of very liquid IOUs. Thus, honest fractional reserve bankers would have to instruct their customers somewhat as follows:

When you invest your gold in our FR Bank, you give up your ownership for an indefinite period of time. We become the owners of the gold and may use it as we wish. In exchange, we give you “FR notes” to the full amount of your deposit, we pay you $x$ percent interest on the investment, and we will try our best to redeem your investment in gold on demand. If we cannot redeem it, the following rules apply. . . .

On the “FR notes,” one would have to find a promissory note of the following type:

The FR Bank promises the holder of this note to try to redeem it out of its gold reserves. Because FR notes are not 100 percent covered by gold presently in our bank, in case we cannot redeem, the following rules apply. . . .

It is idle to speculate about the success of fractional reserve banking under such explicit provisions, which do not exist today. In a free economy, the stipulated set-up
might indeed be attractive as an investment with a specific combination of risks and benefits, but it clearly has little to do with holding cash balances. People own money because they want to be sure the money is there when they want to sell it (otherwise they would have sold it already). It can therefore be safely predicted that honest fractional reserve banking would lead a fringe existence in a truly free economy.

References


