Detangling the Fractional Reserve Banking Debate

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The Austrian debate over the efficiency of Fractional Reserve Banking has, with recognition that Ludwig Von Mises and Murray N. Rothbard identify FRB as the primary cause of the Austrian Business Cycle, rightly absorbed the valuable attention of our most effective examiners. Yet after decades of discussion, the two contesting schools, Free Banking and Full Reserve Banking, remain fast in an increasingly inimical gridlock.

In this paper, I will argue that the disagreement has gained so little ground because it is rooted in a genuine miscommunication. The paper first explains why the Austrian School places such significance on the proper practice of banking and espouses the great benefit that a definitive resolution to the argument would provide. The paper then combines literature from both schools of thought with essential Austrian consensuses to detangle the alleged miscommunication by four steps of increasing precision.

The first step distills the debate into an archetypal discussion, demonstrates that the contesting schools use uniformly distinct definitions for identical terms, and reveals that the translated archetypal discussion does not contain a disagreement. This step also determines that the acceptance or rejection of the "demandable loan" represents the single difference between the opposed schools of thought. The second step establishes that authoritative historical literature does not deny the validity of the demandable loan. The third step demonstrates that praxeological consensus entails the legitimacy of the demandable loan. The fourth step invokes the unanimous Austrian denial of "market failures" to clarify that the acknowledged *legitimacy* of the demandable loan implies its irrevocable *efficiency* at any level of economic complexity.

Significance of the Fractional Reserve Banking Subject

In his 1912 work, *Theory of Money and Credit*, Ludwig von Mises placed banking under the inquisitor's gaze when he calmly identified "fiduciary media," partially embezzled warehouse receipts and loans,[1] as the primary cause of the dread Business Cycle. Mighty Austrians such as F. A. Hayek and Murray N. Rothbard later strengthened this explanation, which came to be called the "Austrian Business Cycle Theory," with theoretical elaboration[2], historical evidence[3], and many clever methods of explanation. In books such as *America's Great Depression*, Rothbard made perfectly clear that "Fractional Reserve Banking," legitimized production of "fiduciary media," was to blame for boom and bust Business Cycle, the most destructive economic force.[4]

The Austrian Business Cycle Theory was peculiar because it implied a remedy to the Business Cycle that stood directly opposed to the conventional medicine. While most economists would have suggested that the State flatten the cycle by some forceful intervention, the ABCT revealed that the State had caused the problem in the first place. This peculiarity, combined with its incredible significance for global economic health, eventually built the ABCT into a central pillar of the Austrian School of Economics. An economist who explained the Business Cycle differently could hardly be called Austrian.

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[1] "We shall use the term money certificates for those money substitutes that are completely covered by the reservation of corresponding sums of money, and the term fiduciary media for those which are not covered in this way (Mises 1934)." "A bank which does not issue fiduciary media can only grant commodity credit, i.e., it can only lend its own funds and the amount of money which its customers have entrusted to it. The issue of fiduciary media enlarges the bank's funds available for lending beyond these limits. (Mises 1949)."

[2] See Hayek's *Prices and Production*.

[3] See Rothbard's *America's Great Depression*.

[4] "Banks should no more be exempt from paying their obligations than is any other business. Any interference with their comeuppance via bank runs will establish banks as a specially privileged group, not obligated to pay their debts, and will lead to later inflations, credit expansions, and depressions. And if, as we contend, banks are inherently bankrupt and "runs" simply reveal that bankruptcy, it is beneficial for the economy for the banking system to be reformed, once and for all, by a thorough purge of the fractional-reserve banking system (Rothbard 1963)."

The Austrian community remained unified around this pillar for years until a small group of apparent dissenters emerged to rock the boat. These scholars argued convincingly that a society that practiced “Free Banking,” Fractional Reserve Banking in absence of government control, would experience, not ruin, but prosperity. The Free Bankers blamed central banks and government meddling for the Austrian Business Cycle, and held that “fiduciary media,” as such, were not only harmless, but beneficial. Although these objectors were accomplished, extremely well-respected, and demonstrated perfect mastery over all aspects of praxeological theory, they apparently sought to topple one of the most crucial aspects of Austrian economics.

As anyone might have guessed, the Free Bankers met with immediate resistance. Many Austrians, which included some of our most revered generals, carefully demonstrated that anything but Full Reserve Banking would guarantee economic disaster, while many other celebrated Austrians easily explained that Free Banking was purely beneficial. In the ensuing decades, Free Bankers and Full Reserve Bankers produced volumes of brilliant literature, but made no apparent headway in either direction. The debate succeeded merely in estranging Austrians from one another while new business cycles continued to blossom across the globe.

I propose that so many brilliant minds could not, after decades of work, decide which side is wrong, because *both* sides are right. Indeed, careful scrutiny reveals that neither side can break down the other’s armor because both theories are completely consistent. The argument stems from a genuine misunderstanding between the participants; the two theories simply use the same terms for different concepts and can thus stand in apparent disagreement while each maintains impenetrable accuracy.

The Austrian school, as the only institution equipped to head off the world’s booms and busts, cannot afford to direct its valuable time and energy against itself. But because Austrians are trustworthy and compassionate, there is great reason to believe that we can come speedily to an amicable agreement. When we do, the Austrian school will redirect thousands of man-hours away from other Austrians and toward the innocents who are unwittingly beset upon by the thieves who ultimately cause booms and busts. The world contains innumerable such potential students and we'll need all hands on deck to teach them all.

Step 1: Identify the Miscommunication

To demonstrate that the Fractional Reserve Banking debate depends on a genuine miscommunication, we must examine the many academic conversations that take place between debate participants and identify the points at which communication breaks down. To save time and space, I have previously analyzed the many volumes of material and boiled these different conversations down to a single prototype. The participants in this conversation state their core planks, elaborate their theories, and arrive at their fundamental disagreement. We will analyze the Archetypical Disagreement, identify the communication error, and determine whether the debate participants remain in disagreement after this error is removed.

Archetypical Disagreement

Opening Statements by a Free Banker

- First, the proponent of Fractional Reserve / Free Banking proposes a society in which clients deposit base money with bankers in exchange for pieces of paper called inside money.
  (Inside money are also called bank notes, fiduciary media, and demand deposits).
- Clients of the bank then trade the inside money for goods and services in the same way that they trade base money.
- The banker is allowed to keep fractional reserves of the base money that the depositor gave to him.
  (This means that the banker spends some or all of the base money).
- The banker is also allowed to loan inside money to borrowers, even if the he only possesses fractional reserves of the amount that's written on the inside money.

Reply by a Full Reserve Banker

- Next, the proponent of Full / 100% Reserve Banking responds that it is fraudulent for a banker to exchange inside money for a depositor's base money and then spend the base money.
  (That is, to keep fractional reserves of base money).
- It is also fraudulent for a banker to trade inside money to a borrower if he only possess fractional reserves of the money that the inside money represents.

- A banker only operates legitimately when he holds full reserves of the money that is given to him by a depositor and full reserves of the inside money that he intends to loan to a borrower.

Closing Statements by a Free Banker

- The Free Banker retorts that it would be impossible for a banker to keep full reserves of base money and also pay interest to his depositors.
- In that case, Full Reserve Bankers would even outlaw "loan banking" and permit only "money warehousing."

Translating the Archetypical Disagreement

As we should expect, the participants in the Archetypical Disagreement appear to be at an impasse. Free Bankers would permit banks to keep fractional reserves on inside money, while Full Reserve Bankers would require banks to keep full reserves on inside money. But at this point in our analysis, the definition of "inside money" remains unclear. In fact, diligent analysis of the debate's literature reveals that each side of the debate employs a different definition for the terms "inside money," "bank note," "fiduciary media," and "demand deposit."

Definitions by Full Reserve Bankers

The authors of most Full Reserve Banking literature define "inside money," "bank note," "fiduciary media," and "demand deposits" as *warehouse receipts*.[5] In their opinion, the customer of a bank also subscribes to this definition and expects that the bank will not spend his warehoused property. Murray Rothbard exemplifies this opinion:

> [A] claim - and bank notes or deposits are claims to money - does not involve the creditor's relinquishing any of the present good. On the contrary the noteholder or

[5] For a list of definitive quotations, the reader is referred to Appendix A.

> deposit-holder still retains his money (the present good) because he has a claim to it, a warehouse receipt, which he can redeem at any time he desires.
>
> Rothbard 1974

> Honest warehousing, that is, one where every receipt is backed by a deposited good, may be referred to as '100 percent warehousing,' that is, where every receipt is backed by the good for which it is supposed to be a receipt. On the other hand, if a warehouseman issues fake warehouse receipts, and the grain stored in his warehouse is only a fraction (or something less than 100 percent) of the receipts or paper tickets outstanding, then he may be said to be engaging in 'fractional-reserve warehousing.' It should also be clear that 'fractional-reserve warehousing' is only a euphemism for fraud and embezzlement.
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> Rothbard 1994

Definitions by Free Bankers

On the other hand, the authors of most Free Banking literature define "inside money," "bank note," "fiduciary media," and "demand deposits" as IOUs that represent *demandable loans*. In their opinion, the customer of a bank also subscribes to this definition and expects that the bank spends some or all of the loaned property. The customer may, at any time, exchange the IOU to the issuing banker and immediately receive the specified sum (plus interest, usually).

Free bankers also allow for a stipulation called an "option clause" which affords the banker a grace period in which to get the demanded money. If the banker does not possess the specified amount on demand, then he is obliged to produce the sum plus penalty within a specified time. Larry White and George Selgin exemplify this opinion:

> A ‘deposit,’ in ordinary modern usage, is a debt claim ... We can distinguish between a ‘time deposit,’ which the banker is obliged to repay only at a specified date in the future, and a ‘demand deposit,’ which gives the customer the legal right to repayment ‘on demand’ …
>
> White 2012

> I've heard it claimed that the only reason bank notes were able to circulate is that people were fooled and thought they were getting warehouse receipts. But they don't look anything like warehouse receipts. They don't say 'this a receipt for goods that are beings stored' it says 'will pay the bearer on demand.'
>
> White 2011

> The special difficulty of meeting any significant redemption request or run on a bank in such a system can be contractually handled ... by invoking an ‘option clause’ allowing the bank a specified amount of time to gather the needed commodity money while compensating the redeeming party for the delay.
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> Selgin 1988

Translated Archetypical Disagreement

We have seen that the debate participants use identical terms to completely different effect. We may therefore substitute the translated terms into the Archetypical Disagreement and observe whether the disagreement remains:

Opening Statements by a Free Banker

- The proponent of Fractional Reserve / Free Banking describes a society in which clients loan money to banks in exchange for demandable debt IOUs.
- Clients of the bank then trade the demandable debt IOUs in the same way that they trade base money.

- The banker is allowed to keep less base money than the creditor lent to him. (This means that the banker spends some or all of the base money).
- The banker is also allowed to loan demandable debt IOUs to borrowers, even if he only possesses less than the amount that's written on the IOU.

Reply by a Full Reserve Banker

- Next, the proponent of Full / 100% Reserve Banking responds that it is fraudulent for a banker to warehouse a bailor's base money and then spend the base money. (That is, to keep fractional reserves of base money).
- It is also fraudulent for a banker to trade a warehouse receipt to a borrower if he possess less money than the warehouse receipt represents.
- A banker only operates legitimately when he holds all of the money that is entrusted to him by a bailor and only loans warehouse receipts that are fully backed by base money.

Closing Statements by a Free Banker

- The Free Banker realizes that the Full Reserve Banker is preaching to the choir. Everyone knows that a bailor should not molest warehoused property and everyone knows that debtors should be permitted to spend the money that they have borrowed.
- The Free Banker suggests that he and the Full Reserve Banker share a basket of curly fries and put ice cubes down the shirts of unsuspecting Keynesians.

Results of the Translation

On second glance, we see that the lines of argument between the two sides don't intersect at all. Although we prepared ourselves for this moment, the sight of the miscommunication should strike as a startling revelation. It is certainly possible that the contesting scholars have allowed for this discrepancy, but it seems most likely that the debate participants unknowingly stand on the same side of the debate: the Austrian side.[6]

Our translation also makes clear the only difference between Free Banking and Full Reserve Banking theory: **Free Bankers explicitly propose that banks should offer demandable loans, while Full Reserve Bankers do not**. If Austrian scholars are willing to stipulate that demandable loans are legitimate and efficient, then we're all set. If not, then we have more work to do. The remainder of this paper will analyze Austrian opinion that surrounds the **demandable loan**.

[6] If nothing else, the discrepancy poses a great *potential* for error that warrants detailed revision of the material.

Step 2: Historical Opinion on the Demandable Loan

Although we have demonstrated that the debate participants may not explicitly disagree with one another, there are, no doubt, scholars who will argue that the very idea of a demandable loan is impossible and fraudulent. Since our ideal is to reclaim Austrian time and energy by resolving this disagreement forever, we must head off any potential to reopen the argument.

Older Historical Opinion

Dissenting scholars might point to such a quote as this one by Murray Rothbard which denies that inside money can ever be treated as a demandable loan:

> It should be clear that, if the deposit banker, or money-warehouseman, is treated as a regular warehouseman, or bailee, the money deposited for his safe-keeping can never constitute part of the "asset" column on his balance sheet. In no sense can the money form part of his assets, and therefore in no sense are they a "debt" owed to the depositor to comprise part of the banker's liability column; as something stored for safekeeping, they are not loans or debts and therefore do not properly form part of his balance sheet at all.
>
> Rothbard 1994

Rothbard and others rightly object to the historical fact that many bankers began as regular money warehousemen, embezzled money from their clients, and then convinced governments to retroactively legalize their theft.[7] Given the stipulation that "the deposit banker is

[7] "As a matter of historical fact fractional reserve banks never informed their depositors that some or all of their deposits would actually be loaned out and hence could not possibly be ready for redemption at any time. (Even if the bank were to pay interest on deposit accounts, and hence it should have been clear that the bank must loan out deposits, this does not imply that any of the depositors actually understand this

treated as a regular warehouseman," Rothbard would prohibit the deposit banker from treating the warehoused property as a loan. Yet under this stipulation, Free Bankers once again agree with Rothbard: "In transfer banking … money on deposit is meant to be 'warehoused' only. The custodian is not supposed to lend deposited money at interest, and receipts given by the banker for it are regular warehouse dockets (Selgin 1988)."

How can Rothbard disagree with Free Bankers while Free Bankers agree with Rothbard? This peculiar result appears because Free Bankers view banks, from the outset, not as money warehouses, but as investment managers of sorts.[8] They propose the perfectly agreeable stipulation that "if the deposit banker is treated as an investment manager" then he may rightly invest the money of his depositors. If historical bankers had presented themselves as investment managers right from the beginning, is unlikely that Rothbard would have objected to their investing money, paying interest, and cashing out on demand.

Recent Historical Opinion

Some scholars argue that Fractional Reserve Banks commit fraud by *presenting* themselves as money warehouses. According to this view, the terms "bank," "deposit," etc have specific historical meanings and the theory of Free Banking promotes fraud by perverting the meanings of these terms. For example, Free Bankers wrongly refer to "demandable loans" as "deposits" and to institutions that accept such loans as "banks." They admit that there would be no problem if Fractional Reserve Banks just called themselves something else.[9] Walter Block exemplifies this opinion:

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fact. Indeed, it is safe to say that few if any do, even among those who are not economic illiterates.) Nor did fractional reserve banks inform their borrowers that some or all of the credit granted to them had been created out of thin air and was subject to being recalled at any time. How, then, can their practice be called anything but fraud and embezzlement! (Hoppe 1994)."

[8] "We could say that for each ounce of coined silver claimed by depositors there was always an ounce of coined silver in the vault. This arrangement, which resembles the business today of renting safety deposit boxes, is sometimes described as '100 percent reserve banking,' although strictly speaking it isn't banking at all, but simply warehousing (White 2012)."

[9] I imagine that they call themselves "Demandable Loan Clubs" or "Jabberwocky Mcgillicuddys."

> Another objection that White and Selgin and others would make is that "well it's really a loan, it's not a bailment." Well if it's really a loan, why don't you call it a loan? Why don't you call it a time deposit? Or better yet, why don't you call it a lottery ticket? Because lottery tickets are ok and there's legitimate lottery tickets … They don't call it that, they call it a demand deposit, which makes it highly problematic.
>
> Walter Block 2009

However, although we have seen that Free Bankers do indeed use different definitions for terms like "deposit" and "bank," there exist no Austrian Free Bankers whose theories explicitly promote fraudulent activity. That is, no Free Banker ever says: "A bank should be permitted to enter into a warehouse agreement with a customer, but spend the warehoused money, without the customer's knowledge or consent, as though it is under a credit agreement.[10]" In fact, Free Banking literature always makes clear that bank and customer fully understand their voluntary transaction. George Selgin and Larry White makes this point very clear:

> If the proponents of the 'fraud' objection to fractional-reserve banking thus concede that the objection vanishes when banks apply the equivalent of a "warning sticker," then they concede that fractional-reserve banking is not inherently fraudulent. Fraud occurs only if a bank's customers are misled about its practices. The remaining normative debate boils down to the question of whether a warning sticker really is needed to avoid misleading customers[11] …
>
> Selgin and White 1996

[10] Perhaps Free Bankers are ashamed to so directly state their true beliefs, but I find it much more likely that they do not believe this outlandish statement at all.

[11] And the debate over whether a warning sticker is really necessary is a much less urgent, more amicable debate that can be held over a basket of curly fries.

Step 3: The Demandable Loan is Praxeologically Ethical

While we have demonstrated that authoritative historical opinion raises no argument against the demandable loan, as such, there may yet emerge scholars who argue that the demandable loan in nonetheless *inherently and inescapably* fraudulent. We must therefore resort to praxeological theory to prove that the demandable loan is perfectly legitimate.

The quickest and most definitive way to provide this proof is to compare the demandable loan with another institution that is, in the opinions of authoritative scholars, utterly legitimate. I therefore claim that, when a bank makes a demandable loan to a customer, the IOU that the customer receives (aka "inside money") is ethically equivalent to a fractional reserve parking pass,[12], a ticket to an oversold flight,[13] or a peculiar sort of lottery ticket.[14] Each of these tokens has been endorsed as "legitimate" by a respected Full Reserve scholar, and each is ethically equivalent to the others because it merely entitles the holder to participate in the drawing of prizes.

Take, for example, the member of a fractional reserve parking lot. This customer has purchased the opportunity to, on demand, during business hours, walk into any gaming location,

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[12] "Now this doesn't mean that you can't have a fractional reserve parking lot, or the airlines sometimes overbook. But when you have a fractional reserve parking lot, it doesn't mean that you have a guaranteed spot, it doesn't mean that you have a demand deposit, it means you have a lottery ticket... What these people are really saying is that money should be a lottery ticket. They don't have the chutzpah to say that, but that's what it means (Block 2009)."

[13] "The owner of a title to money owns a present good (money property) — an indirectly yet immediately serviceable good. The fractional reserve banker is found guilty of fraud; he issued and sold additional titles to an unchanged quantity of money property. In distinct contrast; the owner of an airline ticket owns a future good. Hence, in overbooking now (today) a flight at a future date (tomorrow), an airline cannot possibly have committed fraud already now (today). Fraud cannot occur until tomorrow, when the tickets must be actually redeemed, and only if the airline is then unable to satisfy each and every ticket holder's claim. In fact, airlines typically fulfill their contractual obligation: each ticket holder is assured a seat on the scheduled flight, because the airline is prepared to pay every excess ticket holder off, that is, to repurchase his ticket at a price (by exchange of another good) that the holder considers more valuable than his present airline seat (Hoppe 1998)."

[14] "[White and Selgin explain that] 'Banks may attach an `option clause` to their notes, informing depositors that the bank may at any time suspend or defer redemption, and letting borrowers know that their loans may be instantly recalled.' While such a practice would indeed **dispose of the charge of fraud** … such notes would no longer be money but a peculiar form of lottery ticket (Hoppe 1994)."

presents his pass, and potentially "win" a parking spot. The luck of the game may reward the customer with a parking space, but the employee may also say "ooh rotten luck man, we are all out of prizes right now. Better luck next time."[15]

Equivalently, the holder of an oversold plane ticket has purchased the opportunity to, at a specific time and place, present his ticket, and potentially "win" a seat on a plane. As before, he may win a space, or the employee may say "ooh, rotten luck dude, we're all out of seats. Please play again on this next flight. Here is a consolation prize."

The customer of a peculiar lottery ticket may similarly walk into any gaming location, present his ticket, and spin the wheel of money. The wheel offers very good odds to receive slightly more money than he paid for the ticket, but on rare occasions, he may receive less or none at all. If he doesn't win, the employee will say "ooh, rotten luck bud, we don't have enough prizes. We'll owe you a bigger consolation prize."

The customer of a demandable loan IOU may identically walk into any bank (gaming location), present his IOU, and ask if there's any prize money available. The employee might say "ooh rotten luck man, you didn't win any present money. But our option clause obligates us to give you a future consolation prize."

It's clear that there is no ethical difference between a demandable loan and any other lottery arrangement. As long as a bank presents its demandable loan, not as a guaranteed spot in a warehouse, but as a sort of lottery ticket or fractional reserve parking spot, then no fraud need be committed.

Step 4: The Demandable Loan is Praxeologically Efficient

Authoritative Austrian consensus validates the demandable loan, but there may conceivably appear Scholars who stipulate that demandable loans and Free Banking are *not*

[15] It's possible that the customer may never manage to snag a parking space as long as he lives. Or it's possible that the lot may experience a "parking run" and have to turn away most of the ticket-holders emptyhanded. Such is the nature of the game.

fraudulent, but argue that the practice of demandable lending causes some higher, complex, macroeconomic effects that destabilize the economy. This claim implies that even if an activity does not involve aggression or fraud it may nonetheless create clusters of systematic error that contribute to the boom and bust trend known as the Business Cycle. Such an activity is referred to by mainstream economists as a “Market Failure.”

However, Austrians deny the existence of “Market Failures” because praxeological theory disproves them outright. Suppose that two economists look at a market and notice a trend of systematic errors. A Keynesian economist might diagnose the errors as an inherent attribute of the free market, a “Market Failure” that must be corrected by aggressive force (probably by the State). An Austrian would say that that, because systematic errors do not arise spontaneously in the free market, “someone must have *caused* this cluster of systematic errors by aggressive force (probably the State).”

To put this concept more generally, Austrians have historically proved and uniformly agree that **“in a free market, only systematic aggression can produce systematic errors.”** I call this basic truth the **Iron Law of Misallocation.**[16] The Iron Law of Misallocation implies that, because demandable loans and Free Banking are not fraudulent, they can’t possibly causes any higher complicated systematic errors.

Well What Does Cause the Austrian Business Cycle Then?

We’ve shown that Fractional Reserve Banking, as such, does not cause systematic misallocations of resources, but we are aware that Rothbard identifies Fractional Reserve Banking as the central cause of the Austrian Business Cycle. How can we and Rothbard both be correct? Recall that, by Rothbard’s definition “Fractional Reserve Banking” amounts to “legitimized warehouse receipt fraud,” and that, by Mises’ definition, “fiduciary media” are

[16] Although the Iron Law of MIsallocation is perfectly obvious, it bears naming because it is, like most things that are right under our noses, so commonly forgotten.

"partially embezzled warehouse receipts." It therefore behooves us to show that the Business Cycle is, as Mises spelled out over a century ago, caused systematic production of fiduciary media. Let us explain the Business Cycle by way of a brief demonstration.

Imagine that the Federal Reserve Bank decides to inflate the money supply by 10% and thus steal 10% from the moneyholding public. The Fed then loans millions of dollars to banks across the country who knowingly accept this counterfeit money. One of these banks then knowingly loans this counterfeit money to an unsuspecting person who wants to start a long-term investment project. This counterfeit loan creates what Mises calls **fiduciary media**.

Suppose that the bank lends $1 million worth of inflated (counterfeit) money to the borrower. Because the borrower is not aware that he has received counterfeit money, he does not account for 10% inflation in his math. He believes that he has received 1 million worth of 2014 dollars, not 1 million inflated 2015 dollars. So the borrower embarks on a project that requires 1 million 2014 dollars without realizing that there are only 900,000 worth of 2014 dollars available for him to use. So, in a very real sense, this loan involves a **partially embezzled warehouse receipt**. The borrower has "bought" 1 million 2014$ on credit, but is paid with 1 million 2015$ that only add up to 900,000 2014$. The lender in this scenario has practiced what Rothbard calls **Fractional Reserve Banking.**

This is the situation that Mises describes of the master builder who runs out of bricks before his project is complete.[17] Each borrower can only finish 90% of his investment project, which is often as useful as a 0% finished project. If each borrower builds 90% of a car or factory,

[17] "The whole entrepreneurial class is, as it were, in the position of a master builder whose task it is to erect a building out of a limited supply of building materials. If this man overestimates the quantity of the available supply, he drafts a plan for the execution of which the means at his disposal are not sufficient. He oversizes the groundwork and the foundations and only discovers later in the progress of the construction that he lacks the material needed for the completion of the structure. It is obvious that our master builder's fault was not overinvestment, but an inappropriate employment of the means at his disposal. (Mises 1949)."

then the market becomes filled with nonfunctional cars and factories.[18] When the members of society realize that 10% of their resources have been squandered, people reprioritize, production slows down, everyone is sad, production eventually heads upward, the Fed prints more counterfeit money to speed things along, and the Cycle begins afresh.

Conclusion

The debate is fully untangled! It took some elbow grease, but I'd say it was worth the effort. We have shown that, when it comes to banking, Austrians have always been on the same side. We demonstrated that the basic argument between Free Bankers and Full Reserve Bankers isn't actually an argument, but a pair of parallel speeches about two completely different subjects. We've observed that the promotion of the demandable loan is the only thing that distinguishes Free Banking literature from Full Reserve Banking literature. And we've seen the demandable loan analyzed from every possible angle, vindicated of ethical wrongdoing, and venerated for unimpeachable efficiency! We made clear that demandable loans and Free Banking pose no threat to the Free Market and revealed that, as usual, the State's systematic aggression sits behind the curtain of systematic errors.

If this analysis does indeed detangle the debate to Austrian satisfaction, then reconciliation and fraternity should take care of themselves. The Austrian school will continually organize into an ever sharper, admittedly small, blade that pokes glaring holes in the prevailing fabric of economic falsehoods and sits point-up on the chairs of large-rumped systematic aggressors.

[18] If all of the inflated money was, for some reason, spent on very short-term investment projects, then the massive money counterfeiting would be relatively harmless. But businessmen will likely invest in long projects because the interest rate is proportional to the availability of loanable funds, and the profitable length of an investment project is proportional to the apparent interest rate. **Banking, fractional reserve or otherwise, facilitates the business cycle by setting projects in motion that are relatively useless until they are completed.**

Appendix A

Definitions According to Fractional Reserve / Free Bankers

Inside Money:

An IOU that represents a demandable loan to a banker. The holder may, at any time, exchange the ticket to the issuing banker and immediately receive the specified sum (plus interest, usually). If the banker does not possess the specified amount, then the banker is obliged to produce the sum plus penalty within a specified time after the exchange.

Selgin describes inside money as "debt liabilities (Selgin 1988)," and "assignable and negotiable instruments of credit (Selgin 1988)." "The special difficulty of meeting any significant redemption request or run on a bank in such a system can be contractually handled ... by invoking an 'option clause' allowing the bank a specified amount of time to gather the needed commodity money while compensating the redeeming party for the delay (Selgin 1988)."

Fiduciary Media:

Inside money. Demandable debt IOU.

"Demandable bank claims that are not 100 percent backed by bank reserves of basic money (Selgin 1996).[19]"

Bank Note:

Inside money. Demandable debt IOU.

"Thus Ruritania would evolve the presently known forms of inside money—redeemable bank notes and checkable deposits (Selgin 1988)."

"I've heard it claimed that the only reason bank notes were able to circulate is that people were fooled and thought they were getting warehouse receipts. But they don't look anything

[19] Selgin uses the terms 'inside money' and 'fiduciary media' interchangeably.

like warehouse receipts. They don't say 'this a receipt for goods that are beings stored' it says 'will pay the bearer on demand (White 2011).'"

Demand Deposit:

Inside money. Demandable debt IOU.

"A 'deposit,' in ordinary modern usage, is a debt claim ... We can distinguish between a 'time deposit,' which the banker is obliged to repay only at a specified date in the future, and a 'demand deposit,' which gives the customer the legal right to repayment 'on demand' ... (White 2012)."

Base Money:

Money, the generally accepted medium of exchange.

"Commodity money—the ultimate money of redemption (Selgin 1988)."

Deposit:

The money that purchases a demandable debt IOU. A callable loan that is offered to a banker.

(Refer to the definition of Demand Deposit)

Reserves:

Money that is owed to a creditor.

"The customer would receive a redeemable claim, entitling him to get back equivalent coins on demand, but not to receive back the identical coins he brought in. The account is now a debt claim and not a bailment. Now the coins in the vault are a fraction of immediately demandable deposits. We can describe them as a reserve for meeting the redemption claims that will actually be made (White 2012)."

Fractional Reserves:

Less money than that which is owed to creditors.

(Refer to the definition of Reserves)

Full / 100% Reserve Banking:

To warehouse a precise sum of money under the conditions of a bailment agreement.

"We could say that for each ounce of coined silver claimed by depositors there was always an ounce of coined silver in the vault. This arrangement, which resembles the business today of renting safety deposit boxes, is sometimes described as '100 percent reserve banking,' although strictly speaking it isn't banking at all, but simply warehousing (White 2012)."

Definitions According to 100% Reserve Bankers

Inside Money:

A receipt for warehoused money.

Hoppe refers to inside money as "money substitutes (Hoppe 1994)," and equates money substitutes with "property titles (Hoppe 1998)," "warehouse receipts (Hoppe 1994)," and "claims to money (Hoppe 1994)."

Fiduciary Media:[20]

A receipt for warehoused money that a bank is contractually obligated to possess, but does not.

"In issuing and accepting a fiduciary note (at a necessarily discounted price), both bank and customer have in fact, regardless of whatever they may believe or think about the transaction, agreed to represent themselves - fraudulently - as the owner of one and the

[20] Mises does not fit perfectly into either side of the debate, but it is important to note that the Full Reserve Bankers employ the same definition of Fiduciary Media that he devised while Free Bankers do not.

same object at the same time. They have in fact contracted to create additional titles and claims to the same existing quantity of property (Hoppe 1998)."

Bank Note:

A receipt for warehoused money.

"[A] claim - and bank notes or deposits are claims to money - does not involve the creditor's relinquishing any of the present good. On the contrary the noteholder or deposit-holder still retains his money (the present good) because he has a claim to it, a warehouse receipt, which he can redeem at any time he desires (Rothbard 1974)."

"In a system of free banking - whether on a fractional or 100-percent-reserve basis - the demand deposits and banknotes of the competing banks are *substitutes*. They represent a convenient means of documenting claims on money. In exchanging these tickets, one exchanges ultimately (presently existing) money of which they are considered to be representative. Under a gold standard, the exchange of banknotes signifies the exchange of weights of gold (Hulsmann 1996)."

Demand Deposit:

A receipt for warehoused money.

"It should be noted that the bank note and the open book demand deposit are economically and legally equivalent. Each is an alternative form of warehouse receipt, and each takes its place in the total money supply as a surrogate, or substitute, for cash (Rothbard 1994)."

Deposit:

A receipt for warehoused money.

"Whereas loan contracts (commodatum and mutuum) entail the transfer of the availability of the good, which shifts from the lender to the borrower for the duration of the term, another type of contract, the deposit contract, requires that *the availability of the good not be transferred*. Indeed, the contract of deposit (*depositum* in Latin) is a contract made in good faith by which one person—the depositor—entrusts to another—the depositary—a movable good for that person to guard, protect, and return at any moment the depositor should ask for it (de Soto 2008).”

Reserves:

The exclusive property of a bailor OR the exclusive property of an intended borrower.

“[A] deposit bank will typically hold an amount of reserves (of money proper) in excess of actual daily withdrawals. It becomes thus feasible for the bank to loan these ‘excess’ reserves to borrowers (Hoppe 1994).”

“For in employing its excess reserves for the granting of credit, the bank actually transfers temporary ownership of them to some borrower, while the depositors, entitled as they are to instant redemption, retain their ownership over the same funds. But it is impossible that for some time depositor *and* borrower are entitled to exclusive control over the same resources (Hoppe 1994).”

Fractional Reserves:

Less money than one is contractually obligated to possess under the conditions of a bailment agreement.

“Proponents of fractional reserve banking usually claim that this practice of holding less than 100 percent reserves represents merely an innocuous money ‘economizing’ … [but] anything less than 100 percent reserve deposit banking involves what one might call a legal impossibility (Hoppe 1994).”

“Whenever [a banker] buys an existing quantity of property in exchange for titles to a nonexistent quantity of property, they have become invariably and inescapably guilty of an act of fraudulent appropriation. (Hoppe 1998).”

(Refer also to the definition of Reserves)

Full / 100% Reserve Banking:

To warehouse a precise sum of money under the conditions of a bailment agreement.

"Honest warehousing, that is, one where every receipt is backed by a deposited good, may be referred to as '100 percent warehousing,' that is, where every receipt is backed by the good for which it is supposed to be a receipt. On the other hand, if a warehouseman issues fake warehouse receipts, and the grain stored in his warehouse is only a fraction (or something less than 100 percent) of the receipts or paper tickets outstanding, then he may be said to be engaging in 'fractional-reserve warehousing.' It should also be clear that 'fractional-reserve warehousing' is only a euphemism for fraud and embezzlement (Rothbard 1994)."

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