

# Time Deposits, Dimensions, and Fraud

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**ABSTRACT.** We stipulate, *arguendo*, that fractional-reserve-demand deposit banking is *per se* fraudulent. We ask whether or not time deposit banking can also be illicit, and answer in the positive, if there is a mismatch between the time dimensions of deposits and loans. To wit, if an intermediary borrows short and lends long.

**KEY WORDS:** time deposits, dimensions, libertarianism, private property rights, fraud

## Introduction

The purpose of this article is to explore the ethical and economic status of mismatched time deposit lending and borrowing.<sup>1</sup> It arises, of course, with respect to fractional-reserve-demand deposits. One problem that has interested us for some time is the continuum problem with respect to such deposits. Suppose we accept, *arguendo*, that fractional-reserve-demand deposits should be illegal, but that fractional-reserve-time deposits should be legal. Then, it would be against the law for a bank or other financial institution to accept a demand deposit and turn around and lend it out, but it would not be for it to accept a time deposit for, say, 6 months and turn around and lend those funds out. The continuum problem arises when we ask whether it is OK to take in a time deposit for say, 1 month, and lend it out? Of course, But how about one week? one day? one hour? one minute? one second? That is, just how instantaneous does “instantly” have to be for the purpose of determining whether a transfer of funds to a bank constitutes a demand or a time deposit?

The real issue for economics does not lie with the length of the time period between the deposit and when it must be repaid, *i.e.*, the time length of the time between that at which X received the deposit and that at which X is obligated to return the funds. Consider the case where A deposits funds with

X, where X is obligated to return the funds, not instantly (whatever that may mean) on demand beginning at the moment of deposit, but, say, instantly on demand at any time commencing, say, 1 min after the moment of deposit. Is such an account a demand or a time deposit?

That question is irrelevant for economics. In contrast, the relevant question for economics is: What may X do with the funds that have been deposited with it? The answer is really quite simple: X may lend A's deposits out for any period of time such that the term of the loan ends no later than the earliest moment at which X is legally obligated to return the funds to A. Thus, with a true demand deposit X may not lend the funds at all. However, with 6-month deposit made on 1/1/2008, *i.e.*, a deposit that X is not legally obligated to redeem before 6/30/2008, X may lend the funds out for a period ending no later than 6/30/2008.

Specifically, is it proper (for a bank or any other such institution) to borrow short and lend long? That is, suppose A lends B \$100 for a year, B turns around and lends that \$100 to C, but not for a single year, rather, for 2 years. Before we can confront that issue, let us consider a bit of background.

We take it as given for the purposes of this article that fractional-reserve-demand deposits are illegitimate, could not survive in the free economy, and are economically destructive.<sup>2</sup> Let us briefly review each of these claims.

First, fractional-reserve-demand deposits are illicit because they involve the creation of more property titles than there is property in existence. For example, right now, in a small town, there are 1000 cars, we may suppose. There are also *precisely* 1000 titles to these automobiles. All is well. But if someone were to print up an additional 100 property titles for these items, for which there are no additional vehicles, and tried to circulate them, *i.e.*, by seizing

control of someone else's property with them, this would clearly be recognized as the fraud that it is. It would not matter at all whether this was done "contractually" or not; for there is something more basic than mere voluntary agreement: the laws of logic and reality. If there were 1100 titles for only 1000 cars, 100 of those autos would have not one but two owners. Nor would these 100 cases consist of partial ownership, where two people are partners, and own 50% each of a vehicle. No, they would constitute cases where two individuals *each* own 100% of the automobile, an utter impossibility. This is like a surface that is all red and all blue in the same respect at the same time. It is for this reason that a "contract" whereby the party of the first part agrees to confer on the party of the second part, for an agreed upon fee, a "square circle" would be considered an invalid agreement. There is no such thing as a square circle, and the laws of logic prevent "one" from ever coming into existence.

Similarly, we may suppose that in the same small town there are now 1000 ounces of gold money, and, also, the identical number of titles to these gold ounces, namely, 1000. The same analysis applies. If someone prints up an additional 100 titles to gold ounces of money, there is fraud afoot, there is something logically amiss, no matter who or how many people agree to this act. For, with these additional titles to 100 ounces of gold that do not exist, there is now an "over ownership" of property. Two people, not one person, own each and every ounce of this excess money, an utter impossibility. This we take it is a praxeological claim, not open to empirical refutation.

Because it is fractional-reserve banking that is being considered, we ask how the additional titles come into existence. The answer, of course, is that individuals pay money into a demand deposit. Some portion of these deposits is kept "in reserve" and the remainder is lent, in the process creating additional demand deposits, i.e., the new (excess) ownership titles are lent into existence. The cause of the problem is that the bank had no right to make such loans, because it did not have the relevant elements of ownership of the deposited funds. That is, it had title to the funds only for period for which it had borrowed them, so it only had the right to lend these monies for a period ending no later than the time at which it had to repay the loan by which it acquired the funds it lent.

Second, fractional-reserve banking for demand deposits could not endure for long in the free enterprise system where property rights and the niceties of bankruptcy law are respected, save for the possibility (probability?) that they might be able to exist with very high reserve ratios, say 98% or more, but this is an empirical question. For fractional-reserve banks (FRBs) would be immediately subject to negative clearing house accounts by 100% reserve banks demanding immediate payment for their paper and/or demand deposits. And, since failure to immediately make good on any and all demand deposits outstanding against a bank constitutes bankruptcy, and, since bankruptcy in turn is grounds for immediate dissolution of a company guilty of so egregious behavior, the prognostication for such companies is not a positive one. Again, it must be noted that this is an empirical, not a praxeological claim. That is, there is always the possibility that, for reasons that need not concern us in detail,<sup>3</sup> the 100% banks would not call for the immediate payment of all demand deposits and notes issued by the FRBs. If so, immediate bankruptcy would not be the necessary result.<sup>4</sup> Moreover, the differential clearing rate need not necessarily favor the 100% bank, as it would depend on the relative sizes of the different banks extant and the actual patterns of money transfers among their depositors.<sup>5</sup>

Third, FRB is economically destructive in that it is the causal antecedent of the Austrian Business Cycle (ABC).<sup>6</sup> FRB leads to an increase in the money stock, compared to what it would have been in the absence of this institution; given that this new money enters is lent into existence, it drives risk-adjusted, interest rates down below the level that would otherwise have obtained. This, in turn, encourages and rewards businesses and households that borrow and spend the new funds before the price inflation that is the inevitable consequence of the increase in the stock of money occurs. In general, this involves investing in the most interest rate-sensitive sectors of the economy and purchasing interest rate-sensitive consumers' goods, which are incompatible with the unchanged time preferences of the economic actors. When these misallocations can no longer be sustained, there is a crisis that initiates a cleansing depression, undoing the mal effects of FRB-induced monetary/credit expansion.

With this as a background, we are now ready to explore the thesis of the present article: that not only is fractional-reserve banking for demand deposits

fraudulent, but so also can time deposit banking be fraudulent, when there is a mismatch in the time dimension between the bank's borrowing and lending, such that it borrows short and lends long.

In "Mismatched time deposits" section we explore the legitimacy of time-dimension-mismatched lending and borrowing. We conclude in "Conclusion" section.

### Mismatched time deposits

Suppose B borrows \$100 from A for a year, and then lends that \$100 to C, but not for a single year; rather, for 2 years. Is this a legitimate market transaction? At first blush, it is not: the time dimensions<sup>7</sup> do not match. B the banker is lending the \$100 to C for a period of time, 2 years, that he, B, has no proper control over. A lent B these funds to be sure, but only for 1 year, not 2. It is as if A lends B a book for a year, and B lends that book to C for 2 years. B simply has no right to lend to C what he does not have in his proper possession. A entrusted B with the book for 1 year, and B goes off and confers on C something he was not initially given by A.<sup>8</sup> And what is true for books is also the case for money.<sup>9</sup>

But the defense is not without an answer of its own. Suppose the following. At the outset of our little tableau, A lends \$100 to B for a year. B lends this "same" \$100 to C, for 2 years, as before. Now the first year is up, and A wants his \$100 back from B.<sup>10</sup> B, of course, cannot demand this money back from C, for it is not due for an entire additional 12 months, until the end of year 2, and at present it is only the end of year 1. Whereupon B goes out into the market and borrows \$100 from D, for a year. He gives this \$100 to A, absolving himself of any problem with the latter. Now the end of year 2 arrives. C's \$100 is now due to B. B takes these funds and turns them over to D, acquitting himself of any difficulty with D. Case closed: B owes no one anything. Assuming appropriate interest rate arrangements, B has earned profits sufficient to maintain himself in business. Where is the rights violation, the defender of borrowing short and lending long asks?

In this case, there is still that little matter of over determination of property titles, precisely the shortcoming of FRB. Consider the situation during the first year of our little scenario. There are not one

but *two* people with a valid claim for that \$100 at the end of the first year. First of all there is A; he lent the \$100 to B for only 1 year and has a legitimate claim on this money at the end of the year. And then there is C who was told by B that these monies are not due back until the end of year 2. There is thus a logical incompatibility in this scenario, similar to the one that emanates from FRB.<sup>11</sup>

### Conclusion

Fractional-reserve-demand deposits are not the only fraudulent banking practice. Also to be added to this list are time deposits, where the bank borrows short but lends long. This practice, borrowing short and lending long, is engaged in by others than commercial banks, e.g., investment banks. Of course, investment banks do not issue deposits, time or demand, when they borrow short. In fact, the reason for the Bear Stearns (BS) collapse and bailout was the inability of this firm to roll over or refinance its short-term debt when the credit markets seized up.<sup>12</sup>

Because it could not roll over its short-term debt, BS would have had to pay it off as it came due. In turn this would have required BS to liquidate assets immediately in order to acquire the necessary funds. Many of these assets were derivatives of various kinds with thin markets, at best, or no markets at all. Moreover, the quality of many of those assets had turned out to be significantly lower than supposed because the underlying securities included subprime-mortgage notes. Therefore, they would have had to have been liquidated in a fire sale. That BS had a liquidity problem was obvious to all involved. But mere liquidity problems can be overcome in various ways. The more serious difficulty was that the fire sales were expected to reveal that BS was actually bankrupt. That is, the revenues from the fire sales were expected to be so low that BS's liabilities exceeded its assets and it had negative equity, aka insolvency.<sup>13</sup>

But it is most unlikely that the bankruptcy of BS would have been a sufficient cause to for the Fed and the treasury to get involved, even though this process undoubtedly would have been long, acrimonious, and expensive, as the various claimants fought over whatever value was thought to remain.<sup>14</sup> Rather, as they themselves stated, the reason for the intervention was fear of systemic risk in the financial

system, i.e., they feared a breakdown of the financial system that would have spread to the “real” economy. The cause of their concern was that the sale of BS’s assets at very low prices would have negatively affected other financial institutions because of market-to-market rules.<sup>15</sup>

These distress prices would have set benchmarks that other firms would have had to use in pricing their assets, requiring them to write down the value of their own assets. In turn, this would have eroded their capital, thereby threatening or destroying their capital adequacy. Moreover, because the credit markets were seizing up, these other firms, too, would have been unable to roll over their short-term debt. With the short-term debt markets frozen and without the ability to borrow long term,<sup>16</sup> the only alternatives would have been to raise capital by selling equity or to reduce the need for capital by selling assets. It is true that some major firms did sell equity stakes to sovereign wealth funds, but the cost to the stockholders of the dilution of their share of the remaining assets was very high, and in the cases of preferred stock, the interest rates and other terms were very high. This meant that the FRS and the UST expected massive, fire sales of assets that would have resulted in a financial meltdown that would have then have led to such a widespread collapse of credit markets that non-financial businesses would have been unable to fund operations, much less property, plant, and equipment. That is, the FRS and UST feared that if BS were not bailed out it would collapse, inducing a breakdown of the entire financial system and concomitant crash of the “real” economy. These fears of the FRS and the UST led to their efforts to force an orderly sale of BS to JPMorgan Chase, i.e., a bail out of BS, with all that implies for the too-big-too-fail approach to governmental policy and attendant moral hazard in the guise of the greater-fool approach to investing, the greater fools being the taxpayers.<sup>17</sup>

## Notes

<sup>1</sup> Of course, this also raises the issue of whether fractional-reserve banking should be illegal.

<sup>2</sup> For material in support of this contention, see Block and Garschina (1996), Hoppe et al. (1998), Hoppe (1994), Hulsmann (2000, 2002a, b), Rothbard (1962),

de Soto (1995, 1998, 2001). For the opposing viewpoint, see Sechrest (1987, 1989a, b, 1991a, b, 1993, 2007), Selgin (1994, 1998, 2007a, b, c), Selgin and White (1996), White (1992, 1995, 1999).

<sup>3</sup> The issue turns on whether or not the transactions costs of “attacking” the 99% FRB through adverse clearing house balances are more or less than the benefits of eliminating a competitor.

<sup>4</sup> The second mentioned author of the present article maintains that in equilibrium, e.g., in the evenly rotating economy, FRB could not exist, assuming profit-seeking behavior on the part of the 100% reserve banks. The first mentioned author demurs because he finds the concept of equilibrium in economics, in any of its guises including the ERE, unscientific.

<sup>5</sup> For example, suppose that Bank A (a 100% reserve bank) had demand deposits of 100 ounces of gold and Bank B (a 98% reserve bank) had 50. If Bank B’s depositors only did business with other customers of Bank B, but some of Bank A’s customers bought things from customers of Bank B, it would be Bank A, the 100% reserve bank that would lose its gold to Bank B, the 98% reserve bank.

<sup>6</sup> On Austrian Business Cycle Theory (ABCT), see Barnett and Block (2005, 2006), Block (2001), Block and Garschina (1996), Carilli and Dempster (2001), Garrison (1994, 2001, 2004), Garrison and Bellante (1988), Hayek (1931), Hulsmann (2007), von Mises (1998), Rothbard (1975, 1993).

<sup>7</sup> For the importance of dimensions in economic analysis, see Barnett (2003, 2004).

<sup>8</sup> We abstract from the possible difficulty that A does not want B to lend anything to C, for any amount of time. We assume that B may lend to C what was entrusted to him by A; the *only* issue revolves around the time dimension.

<sup>9</sup> Dissimilar to cases of loans of books, lawnmowers, etc., which are not, in general, fungible goods, and which require, therefore, the return of the exact item lent, money is a fungible good, and therefore unless it is specified in the loan contract that the identical pieces of money must be returned – a term not to be found in real world contracts – a loan of money may be repaid with any equal amount of money.

<sup>10</sup> Plus interest, of course, but we ignore this complication.

<sup>11</sup> What of the possible objection to our thesis that the futures market would also have to be banned if we are correct? There, too, the man who sells in a futures market promises to do something that he does not have it in his power to do, at least at the present time. This objection fails, for there is a relevant difference between the two cases: the person who borrows short and lends

long does something he has no right to do, whereas in the futures market both buyers and sellers are only promising to do something in the future, but what they promise is something they have every right to do, and therefore they have every right to promise to do so.

<sup>12</sup> For more on this episode, see Reisman (2008), Shostak (2008).

<sup>13</sup> Thus the hue and cry among some that the haircut BS's shareholders took under the governmentally arranged bailout was not short enough – their heads should have been completely shaved.

<sup>14</sup> Economic losses are generated when resources are misallocated. However, if it were apparent that a use of resources was a misallocation, such use would never be undertaken. So, mistakes are made, but they only come to light later when they manifest themselves as financial losses. Bankruptcy proceedings are one method of distributing, ex post facto, the losses among the various relevant parties.

<sup>15</sup> Mark-to-market rules require that the value of a financial asset be recorded on the books at the current market price for that, or similar, instruments. If no market exists, then (computer) models are used to concoct a price.

<sup>16</sup> Who would have lent capital to them long term in such circumstances?

<sup>17</sup> It would take us too far afield to argue for the laissez-faire public policy in this case. The interested reader may consult Rothbard (1975), for the argument that bail outs, subsidies to business, etc., are never justified, either on an economic or ethical basis.

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