

## **On the Necessary and Sufficient Conditions for Legitimate Banking Contracts**

**Abstract:** What role do demand deposits serve in the financial system? The answer to this simple question has great implications in keeping the legal terms of the contract consistent with the demands of the financial system. Demand deposits are a perfect monetary substitute. Since money is *only* held to hedge against perceived uncertainty in both the timing and magnitude of future expenditures, demand deposits are demanded for the same reason. From this we derive three main conclusions. First, that a financial contract similar to a demand deposit (e.g., very short-term bonds, money market mutual funds, etc.) cannot substitute for money. Second, that full agreement to a financial contract does not create a perfect substitute for money unless it provides money's two key characteristics: on demand and par value redemption. Finally, that the demand for fractional-reserve demand deposits is fostered by an exogenous source (deposit insurance) and that demand for an action is not a sufficient condition to justify its legality or ethicality.

# On the Necessary and Sufficient Conditions for Legitimate Banking Contracts<sup>1</sup>

## 1. Introduction

Malavika Nair (forthcoming) makes three claims to support her contention that fractional-reserve banking is not fraudulent. The first is that a fractional-reserve deposit account represents an aleatory contract, and as such creates a suitable solution that satisfies all legal and ethical requirements of a money substitute. Second, she attempts to show that no voluntary transaction can be considered fraudulent since collaboration between the parties implies that there is no identifiable victim. Finally, she claims that whether depositors and bankers are transacting voluntarily is an empirical question, and that the degree to which deposit accounts are used as substitutes for “money” (by which we take her to mean currency or outside money) can be signaled by the prevalence of inside money in clearing transactions. Nair concludes that there is nothing wrong with the fractional-reserve demand deposit provided that all concerned parties understand what is being contracted.<sup>2</sup>

In this article, we challenge each of these claims and support our general thesis that the common fractional-reserve demand deposit, even if mutually agreed upon by all relevant parties, is a legal aberration that could not exist in a free society. To support this view, in section 2 we discuss the basic determinant of the demand to hold money and why an aleatory contract cannot satisfy this demand. Section 3 questions whether there is no identifiable victim in fractional-reserve banking due to the collaborative nature of the contract. In section 4 we address whether the demand for fractional-reserve demand deposits is a suitable test for the voluntary and ethically legitimate nature of the contract. Along the way we also correct

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<sup>1</sup> We would like to thank an anonymous referee for helpful suggestions. All errors are our own.

<sup>2</sup> We can appreciate that Nair’s analysis focuses on the ethical nature of the fractional-reserve demand deposit, which is a more fruitful starting point than the secondary issue of the economic effects of such a product (Barnett and Block 2009; Davidson and Block 2011).

some (likely honest) misrepresentations of our previous viewpoints. Section 5 concludes.

## 2. Deposits and the Demand for Money

The crux of the issue at stake with fractional-reserve demand deposits – from an ethical, legal and economic standpoint – is that two financial contracts are joined together to create ambiguous rights and obligations. From the depositor’s point of view, he deposits a sum of money in an account and perceives that sum to be a perfect money substitute.<sup>3</sup> This maintains the two essential properties of perfect money substitutes: that it redeems on demand and at par value (Howden 2015).<sup>4</sup> From the bank’s point of view the sum is treated as a loan of undefined maturity. The banker makes a best efforts promise to return the deposited sum on demand, though he simultaneously uses at least some of it (i.e., he holds only a fractional reserve), thus creating the possibility that the funds will not be available upon request. Such a situation is evident in the case of the bank run.

An instance where a bank holds insufficient liquid assets to honor the redemption demands of depositors is the outward appearance of the ambiguous nature of the contract that always existed. From the depositor’s point of view, his right is to receive his deposited sum back on demand. From the banker’s point of view, he does not need to return the funds on demand since they were lent to him. *Ex post facto*, this rights conflict can be rectified in one of two ways. First, and as is commonly the case in the modern banking system, a depositor can be converted into a lender and thereby lose his right to withdraw the deposited sum on demand (as happened in Greece in 2015 during the imposed bank holidays or by maximum daily

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<sup>3</sup> Offering a supply of perfect money substitutes is the one unique characteristic of banks. All other financial products they offer (e.g., time deposits, loans, equity investments, etc.) are also available at alternate financial institutions. Furthermore, the role of the deposit is a commonly cited condition for the creation of a perfect money substitute (see, e.g., Nair 2011).

<sup>4</sup> See also Mises (1949: 429) for an analysis of money substitutes.

withdrawal limits). Alternatively, the depositor can be converted into a shareholder of the bank and receive the market value that his “investment” (the original deposit) is now worth (as happened in Cyprus in 2013 when deposits over €100.000 were converted into equity shares). Both of these outcomes are forced upon the depositor and thus in no way can be considered voluntary. The original deposit, acting as a perfect money substitute, entails no originary interest or capital gain remuneration to the depositor. He foregoes remuneration he could have gotten if he had invested his funds because of the qualities of money *qua* money (and perfect money substitutes, such as demand deposits in general). He is remunerated – both by desire and economic necessity – in different ways.<sup>5</sup>

On the one hand money cannot give an explicit pecuniary remuneration to the holder as it is the present good *par excellence* (Rothbard 1962: 375). As money functions as the ultimate means of settlement, it can never be represented as a future good. The economic phenomenon of an originary interest payment is the intertemporal return that compensates the individual for lost utility between when he renounced the good (the present) and when the good is returned to him and he regains the ability to derive value from it (the future). Since money always endows its holder with value in the present there can be no originary interest payment resulting. In contrast, lent sums of money do necessitate an interest payment to compensate the lender for the lost utility between the time period when the loan was initiated and its return upon maturity. Deposit accounts, acting as perfect money substitutes, also cannot remunerate the depositor. Since one essential feature is the on demand redeemability of the deposit, it is (like money) a present good and as such can confer no intertemporal value

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<sup>5</sup> By “money *qua* money” we refer here to money’s use only as a medium of exchange. Under older monetary regimes, e.g., the gold standard, commodity money could have qualities beyond those endowed in it as the monetary unit *viz.* the direct utility the monetary good provided. Fiat money, as is exclusively used throughout the modern economy, lacks a direct utility and only functions with exchange value or, in other words, has value only to the extent that it functions as money.

spread, i.e., ordinary interest.

On the other hand, a perfect money substitute confers qualities that make it unique in any categorization of goods. Notably, it is the only financial asset that is available at par value and on demand. (In contrast, a bond is a financial asset that redeems into money at par value in the future, and an equity redeems into money at market value on demand; futures redeem, in various degrees, at market value in the future (Howden 2015a; b)).<sup>6</sup> Since these are the defining characteristics of money, it is instructive to consider why one would demand such features.

Mises (1949:244-50) makes use of his equilibrium construct, the evenly rotating economy, to illustrate the conditions under which money would *not* be demanded. If one were fully certain of his future expenditures – both in terms of magnitude and timing – he could either settle them in the present at their discounted value or invest his savings in an interest-bearing product that matures at the necessary time to settle the expected expenditure. If one knew the timing *or* the magnitude of a future expenditure he could either purchase a bond or an equity to provide the necessary future funding. Doing so would allow the individual to take advantage of the information that he knows while still providing a hedge against the aspect of the future expenditure attribute that he is uncertain about (Howden 2015a). Money, on the other hand, is the only good able to hedge against the dual uncertainty of not knowing when or how much a future expenditure will amount to. As such, the demand for money must ultimately stem from a demand to alleviate felt uncertainty.

If a deposit is to serve as a perfect money substitute, it must share the key attributes that

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<sup>6</sup> Note that both bonds and futures can function as equities to the extent that only their market value is realizable if sold in the present.

create the demand for money: on demand availability coupled with the certainty of par value. To remove either of these characteristics from a deposit would be akin to making it an imperfect money substitute insofar as it would only be able to be redeemed after some time period or at an unknown future market value. (If both characteristics are removed – par value and on demand redemption – the asset would fail to be considered as even an imperfect money substitute as it would lack all of money's characteristics.)

To the extent that a demand deposit either has the outward appearance of on demand par value redeemability or, most importantly, the depositor perceives this to be so, the bank cannot hold only fractional reserves to collateralize it. This is because by holding only a fractional reserve the banker is exposing the depositor to the possibility that he will not get his deposit back at par value, or alternatively, that he will not get it back on demand but rather at some future date. Both outcomes are anathema to the depositor's original goal in making the deposit, and demonstrably so. If he did not value either of these features he would have placed his money in an alternative that would not impose a cost on him: either a loan of shorter or longer maturity (depending on his liquidity preference) or an equity investment. Only a full reserve can guarantee the par value on demand redeemability of the deposited sum and thus meet the depositor's original intent.

The preceding discussion is important in order to respond to two alternatives that Nair (forthcoming) gives in an attempt to provide depositors with alternatives to deposits that are ethically and legally legitimate. It is also important because several other authors have offered one or both of the following options in an attempt to improve the ethicality and legality of banking services.

Following White (2003) and Evans (2013), the first alternative product that Nair offers is an aleatory contract such as an insurance contract. An aleatory contract is one whereby the outcome is dependent on an unknown future event. It is excusable to consider a deposit account as a type of insurance product to the extent that one is “insuring” himself against perceived uncertainty. However, the analogy is impossible to maintain given the special characteristics of money and the reasons it is demanded (Bagus *et al.* forthcoming).

The demand for money (and by extension, any perfect money substitute such as a demand deposit) is a demand to reduce felt uncertainty. To the extent that insurance products exploit the large of law numbers, they serve as risk reduction products (not uncertainty reduction).<sup>7</sup> The ability of an insurance product to protect the holder is due to the well-defined class of items being insured (e.g., insuring against death a 40-year old non-smoking man with no family history of illness) and the uncorrelated nature of the items within the class (i.e., the death of one man in the previously defined class has no effect on the death of another). In contrast, deposit redemptions are correlated, e.g., a banking crisis may cause en masse redemptions into currency, or a line in front of the bank signifying a bank run will entice others to withdraw their deposits. Furthermore, the purpose of the insurance contract is fundamentally different than that of a deposit. The insurance policy holder renounces the availability of his premiums until the policy pays out. The depositor desires to retain the availability of his deposit at all times to guard against uncertainties. Moreover, the insurance policy holder hopes to never make use of the policy (and with regard to life insurance, he never will). In sharp distinction, the depositor only makes a deposit for the explicit purpose that he hopes to have the money available to him in the future. Finally, we must note that insurance companies can make use of their knowledge of how the larger set of insured items

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<sup>7</sup> For the classic differentiation between risk and uncertainty see Knight (1921) or also Mises (1949: chap. 6).

behaves in setting the premium for service. A bank is not at such liberty when assessing deposit accounts as the depositor himself knows not when or how much of his deposit he will require (Bagus and Howden 2013). In sum, insurance products are an imperfect analogy for deposit products and do not fulfill the depositor's purpose for holding his money in the form of a deposit.

As an alternative, Nair turns her attention to "callable loans", an option recently discussed in Evans (2013) and White (2003: 427) (though the latter refers to the contract as "demandable debt").<sup>8</sup> Callable loans are commonly used in margin trading, whereby the investment company will lend the investor money to purchase a financial product with the understanding that the loan can be called at the lender's discretion. The aforementioned authors see the outward similarities between such a loan and a demand deposit, and thus equate the two accordingly with some slight terminological differences: the depositor "lends" his money to the bank with the understanding that he may "call" it on demand in order to satisfy his redemption demand. Despite the similar physical attributes of the two financial products, there are four key differences that make the analogy inapplicable (Bagus *et al* forthcoming).

The first is that the depositor's purpose is the availability of his funds on demand; the lender in a callable loan transaction has the purpose of making an investment for financial remuneration. As a result, the desire for availability is not a key feature of the callable loan. In fact it is readily apparent that by lending the money to the borrower the lender values the compensating remuneration more than the availability of the lent funds. The second

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<sup>8</sup> Although Nair (forthcoming) does not discuss the option, Bagus *et al.* (2015) discuss the use of money market mutual funds for those depositors who are looking for a financial product that is highly liquid, and which functions as an imperfect money substitute owing to the fact that such products need not trade at par value either *de jure* or *de facto* (an outcome better known as "breaking the buck").



difference is that a demand deposit has no duration or restriction on when the depositor can make a redemption – the money is available on demand. In contrast, a callable loan must have an at least *de facto* minimum duration (as do all loans) in order to give the borrower time to make use of the lent funds in question: “The borrower must expect that he will be allowed to use the loan unhampered for some minimum period before (or if) the loan gets called. In distinction, the depository has no problem with a depositor making a deposit and then withdrawing it instantly; this is the service that the depositor pays for” (Bagus *et al.* forthcoming). Third, in a deposit contract the depositor pays the depository (the bank) for services rendered. In the callable loan it is the borrower paying the lender for the use of the loan. However, in the analogy as presented the depositor and lender are counterparts which gives rise to the question as to why distinct remunerations are provided if the transaction is analogous. Finally, from a terminological standpoint, “callable loan” is an unfortunate term. The transaction is actually a short-term loan with an embedded extension option that the lender can exercise at any point. This is quite different from the supposed understanding that the lender has a long-term loan that he may choose to call in (i.e., unilaterally reduce the loan’s maturity) and makes the analogy to a demand deposit obviously imperfect.

The question of what rights and obligations the demand deposit entails is a thorny issue because of the unique nature of the good to which it is a perfect substitute for: money. Once it is realized that money has a unique purpose – to reduce perceived uncertainty – it becomes clear that any perfect substitute for it must be demanded for the same reason. Furthermore, the prevalence of fiat money in the financial world makes the purpose of money objectively definable as it has value only to the extent that it is exchangeable.<sup>9</sup> Since fiat money only has

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<sup>9</sup> We exclude the numismatic demand for money, partly because the demand by collectors is trivial relative to the total exchange demand for money, and partly because of the fact that numismatically valued money is almost always a defunct non-circulating currency,

value in exchange, we can state that it is only demanded to satisfy unknown and unknowable (i.e., uncertain) future pecuniary expenditures. Finally, we know that demand deposits are perceived to be perfect money substitutes because they trade without a discount to money proper.<sup>10</sup> If one wanted an *imperfect* money substitute, bonds and equities provide a much more cost effective alternative. Any perfect money substitute must be redeemable on demand and at par value. Demand deposits are the unique financial product that fulfills these criteria.

### **3. Collaboration does not affect Ethicality**

The second substantive point that Nair (forthcoming) tries to make is that the collaborative, or mutually agreed upon, nature of the fractional-reserve demand deposit contract makes it ethically legitimate. She bases this conclusion on the fact that in common law any fraudulent act requires an identifiable victim. If both parties agree to a contract there can be no such victim and thus no fraud committed. Lacking fraud, the contract must be ethically legitimate and permissible in a free society.<sup>11</sup>

Before assessing whether victimless “crimes” constitute either ethical or legal infractions in a free society, we must first point out that the “fractional-reserve banking is fraudulent and therefore impermissible” argument is a small subset of the larger argument against the

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and as such is not really money by any definition. At any rate, as the accepted definition of money is that it is the “commonly accepted medium of exchange”, money demanded for numismatic purposes is not demanded as money but rather as some collectable good.

<sup>10</sup> If demand deposits were aleatory contracts they would not trade at par value. Only a perfect money substitute can trade on par value in the present. On the discount of imperfect money substitutes relative to money, see Mises (1949: 442).

<sup>11</sup> Applying Nair’s definition and standard of fraud, fractional-reserve banking may actually be regarded as fraudulent. Nair claims that misrepresentation implies fraud and states (forthcoming: fn4), that Bernard Madoff’s scheme was fraudulent “because of misrepresentation of the fact” that led clients “to believe that they can earn unusually high returns.” Similarly, it may be argued that there is a misrepresentation of facts when fractional-reserve bank clients are made to believe that they can obtain full availability while the bank uses their money.

practice. On multiple occasions we have stressed that while fractional-reserve banking can be categorized as a fraudulent case, this is not a fruitful way to proceed with the analysis. This is because: 1) as not all cases of fractional-reserve banking can be categorized as fraud no general theory for or against the practice can be deduced by focusing on this specific case, and 2) in the modern banking system it is probable that there is no fraud occurring, since at least some depositors know the full terms of the deposit contract. Indeed, Bagus and Howden (2013: 240fn8) note that they do

not [argue] that these financial contracts are necessarily fraudulent. All parties can be in complete agreement, thus negating this possibility. Knowledgeable and voluntary agreements can be ethically and legally suspect, even if they are non-fraudulent. As an example, consider how the legal system treats an individual contracting another person for his own death.

Elsewhere we have criticized authors for focusing on the “fractional-reserve banking as fraud” argument as they do so with the implicit understanding that either 1) bankers willfully misrepresent the terms of the contract that they offer (something that is not necessarily the case, as in Bagus and Howden (2012c)), or 2) the very definition of fraud is subjective and can be rectified by the contracting parties reaching agreement that no fraud has been committed (as is argued in Bagus, Howden and Block 2013). Nair (forthcoming) pursues this latter chain of reasoning by using the logic that no individual could voluntarily submit to a fraudulent contract.

If one wants to pursue the “fractional-reserve banking as fraud” argument, however, what must be demonstrated (as Nair (forthcoming) stresses) is that the action is non-voluntary *and*

that an identifiable victim be found. (If both of these conditions cannot be satisfied then there is no way that fractional-reserve banking could be termed fraudulent under her standard.) We will first address the “voluntary” nature of modern deposit banking contracts.

Legally speaking, the fractional-reserve demand deposit gives depositors the rights and obligations of a deposit contract and gives the bank the rights and obligations of a loan contract. When Nair (and others) speak of “client collaboration” or the mutually agreed upon nature of the contract, they are using the more constrained case whereby depositors deposit their funds and would like them available on demand, but understand that the bank is using it as a loan and will do its best to return it on demand. On the one hand, and as an empirical aside, it is questionable whether depositors agree to such a contract. A survey by Evans (2010) found that 74 percent of respondents believed that they were the legal owners of the money in their deposit account (in contrast to the actual situation whereby the bank is the legal owner) and one-third were opposed to the bank’s use of their deposited funds. Perhaps some clients knowingly agree to this contract, but far from all do. (The reader may ask him or herself whether they have ever read the terms and conditions governing the rights and obligations of their deposit account so that they could agree with them.)

On the other hand, and from a more theoretical point of view, it should be clear that there is a lack of collaboration between depositor and bank as the law does not necessitate it. From the depositor’s point of view, his deposit is a deposit *viz.* he can request it on demand and it is redeemable at par value. From the bank’s point of view the sum is treated as a loan *viz.* provided the banker abides by some liquidity or solvency requirements, e.g., maintains a minimum reserve ratio, he may lend the funds however he pleases.<sup>12</sup> Collaboration as such is

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<sup>12</sup> Another way to consider this problem is that there is no fraud taken from each

only necessary in a sharing situation, whereby at least two parties will collaborate and reach agreement on how to share a scarce resource. To say that we will share the rent of an apartment implies that we will collaborate to devote our scarce income to complete the task of paying rent. When two students share the work of an assignment, they collaborate to allocate a portion of their scarce time in such a way that the common goal is met. In deposit banking there is no such collaborative effort amongst the banker and depositor. Each makes use of the funds independently of the other. The depositor does not ask for the bank's permission prior to using his deposit, and the banker does not concern himself with the redemption requirements of any one depositor, but rather looks at the average demands brought forth by all clients.<sup>13</sup> Collaboration is always in favor of a common goal and out of a common motivation. In the case of fractional-reserve banking the goal of the depositor, to maintain complete availability and the goal of the banker, to receive a loan in order to invest it, are contradictory. Since the motivations of the actors are incompatible, the fractional-reserve demand deposit contract is legally null and void.<sup>14</sup> Furthermore, it should be most obvious that the depositor could not collaborate with the banker under any scenario since his very purpose of holding the perfect money substitute is to guard against an uncertain future expenditure. Since he knows not when or how much this funding requirement will be, he cannot collaborate with the banker to reach agreement on when or how much of his deposit

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individual party's point of view as they each honor their contractual obligations and, provided the bank remains liquid, enjoy their contractual rights. Taking a bird's eye view of the problem there is an obviously contradictory nature to this contract which would nullify it under standard contract law either through one party misrepresenting the other, i.e., a case of fraud, or through a lack of a meeting of the minds (Bagus *et al.* 2015). Interestingly, some supporters of fractional-reserve banking agree that these two conditions make voluntarily agreed upon contracts unenforceable (and void) in the general sense, but fail to apply to the logic to banking contracts in particular (see, e.g., Evans forthcoming).

<sup>13</sup> It could be said that supporters of fractional-reserve banking who focus on average instead of marginal redemption demands commit the same error as the classical economists did in focusing on the total or average utility of a good in lieu of its marginal utility.

<sup>14</sup> When two students share the work of an assignment, the one with the goal to pass the class, the other one with the goal to fail the class, we would not speak of collaboration either.

the banker is permitted to use.

In the banking contract there is no need for such a collaborative agreement since each party can act independently of the other, according to modern deposit laws. This fact contrasts with the *ex post facto* difficulty that arises in the case of the illiquidity of a bank, e.g., during a bank run. In this scenario there must be some “collaboration” to determine how best to share the scarce liquid resources in the bank’s possession. This “collaboration” only comes about because of the exposure of the impossible sharing agreement that the fractional-reserve demand deposit created all along, whereby an insufficient amount of reserves were held by the bank to honor the redemption requests of the depositors. We place special emphasis on the term “collaboration” since it is questionable how collaborative such solutions really are. Given that depositors perceive their deposit to be available to them on demand and at par value, widespread indignation results when a solution to an illiquid bank removes either of these attributes. Depositors converted to equity holders (as was the recent case in Cyprus whereby depositors received a market value of their deposited sum) or depositors converted to lenders (as was the case historically when bankers exercised the option clause on deposits) bring about widespread protests and feelings of mistrust and mistreatment towards the banking class. (Indeed, the latter solution – converting depositors to lenders – was illegal in the United States in the 20<sup>th</sup> century owing the fact that unilaterally altering the terms of the initial contract does not satisfy the “voluntary” requirement of contract formation (Howden 2014).)

Finally, we may ask whether it is true that an identifiable victim is a requisite part of a fraudulent activity. Alternatively we could rephrase the question and ask whether it is true that fractional-reserve deposit banking has no identifiable victim. Consider the following

example, which differs only from modern deposit banking because the deposit here is a non-fungible good:

Imagine that your wife and you leave for vacation and place her engagement ring in a safety deposit box at the bank. While you are gone, your banker “borrows” the deposit, his wife wears it during a night out, and they return it before you return. At your wife’s request, the ring is returned (i.e., made available to her), and she has no knowledge of its use while she was away. Despite being completely analogous to the conditions of modern deposit banking, most (if not all) people immediately see the rights violation involved in this simple example. (Bagus *et al.* forthcoming: 199fn3)

Whether a victim can be identified by any outward appearance of the transaction is not the crucial question at stake. A victim can be identified just by looking at whether the rights and obligations of the contract have been broken. Alternatively, what if you sold your house to another but kept a key so that you could use it for parties when the new owners are away? Even if you leave the house in good order (or maybe even better if you leave it cleaner than when you used it) the new homeowner is still a victim as his rights have been infringed. During World Youth Day in Toronto in the summer of 2002, there was a story (perhaps an urban legend) of a group charging drivers money to park their cars on the lawns of houses whose owners were away for the weekend. (The group making money had no relationship to the homeowners whose lawns they were using, and did not remunerate them.) Then, while the owners of the parked cars were away for the day the group offering the illegitimate parking services broke into their cars and stole their belongings. Would Nair (forthcoming) find this situation agreeable if only the group had not broke into the cars? One could retort and say that the group misrepresented themselves as the owner of the lawn being used, but

that is beside the point. On the one hand, the issue at stake is whether there is an identifiable victim. On the other hand the situation is uncannily similar to fractional-reserve banking whereby the depositor thinks he owns the deposit notwithstanding the bank being less than forthcoming about ownership being transferred to it.

It is not clear that there is no victim in fractional-reserve banking. If a right is broken, a victim can be located. This is easiest to identify in the specific case of a bank run, or the general case of a bank having insufficient liquid assets to satisfy deposit withdrawals.

However, the outward appearance and identification of a victim is not important as rights can be violated even if one does not see them. Since a deposit is made with the desire to hold a perfect money substitute (as per the above section “Deposits and the demand for money”) the two essential criteria that define money relative to other financial assets must be upheld: on demand redemption at par value. Honoring such a contractual obligation means that the bank must hold a full reserve. Since the depositor perceives the deposit to be in his possession,<sup>15</sup> it is the bank’s contractual obligation to assure that the funds are available as per the depositor’s demands.

#### **4. Demand Is Not a Substitute for Legitimacy**

As a final point, Nair (forthcoming) points out that the demand for fractional-reserve deposits provides strong empirical evidence for the legitimacy of the practice:

[I]t is an empirical question as to the extent that such claims [fractional-reserve demand deposits] may circulate in place of money proper. However, it provides an answer to the question of how fractional reserve banking may exist and even

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<sup>15</sup> The reader could consider whether he or she counts their deposit account as part of their cash balance *or* as a potentially illiquid loan *or* as an equity investment.



proliferate in an ethical way. If people or banks' clients find it more convenient to use and hold bank notes or checking balances instead of the actual money, then banks will be able to engage in fractional reserve banking and hence "create" more money. If clients choose to redeem money often, then that will place a natural limit on the extent of money creation.

To the extent that a client lost faith in his bank's ability to convert inside money to the medium of exchange, he would not hold his money in the form of a deposit but would redeem it as currency. This is an application of a common chain of reasoning in the literature on fractional-reserve free banking, whereby banks will only be able to issue deposits inversely proportional to the velocity of money (Selgin 1988).<sup>16</sup> As decreases in the latter imply greater demands to hold money, this demand must be met by banks increasing their offer of money in general (in the form of deposits).<sup>17</sup>

Using such argumentation in the modern banking system cannot be made without severe reservations. On the one hand, since all banks hold fractional reserves in practice, there is no other perfect money substitute in the physical sense of the term that an individual can turn to. Holding currency in a safety deposit box could, in theory, serve such a purpose. However, the physical on-demand nature of the perfect money substitute is severely curtailed in this option requires a significant time lag between when money is demanded and when it is available. Some may say that this situation is no different than that which would have occurred in even the not-so-distant past, in a time before electronic transfers and debit services enabled true

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<sup>16</sup> The welfare effects of fractional-reserve banking are a separate, though no less contentious, topic than the ethical nature of the transaction. The interested reader is directed to Rothbard (1990), Huerta de Soto (1995, 1998, 2006), Hülsmann (2000), Hoppe *et al.* (1998), Bagus and Howden (2010, 2012b) and the collection of essays in Salerno (2010) for a reappraisal of the alleged benefits of the practice.

<sup>17</sup> Note this reasoning rests on an important assumption that prices are sticky throughout the economy, and that changes to the general price level are a suitable substitute for adjustments to specific goods' prices (Bagus and Howden 2011; 2012a).

(physical) immediate use of money. Undoubtedly this is true, insofar as the outward or physical aspects of availability are concerned. This definition of availability may change over time as technology permits, and it is foreseeable that current banking services will be seen as onerous in the future as technological advancements make the physical use of money easier and swifter. Such advancements have no bearing on the legal or economic definition of “availability” which is a quite different concept from “use” in any case (Bagus *et al* 2015). Specifically, the question of how available *can* a deposit be has no bearing on the how available a deposit *must* be (Bagus and Howden forthcoming). Full availability is an attribute given meaning by the intents and actions of the relevant parties. Thus, holding money in a safety deposit box would satisfy the economic and legal attributes of full availability, notwithstanding the fact that (in most instances) converting currency to a demand deposit would result in a higher degree of technological, or physical, availability.

On the other hand, perhaps depositors are willing to sacrifice the lack of economic full availability in a fractional-reserve demand deposit in lieu of the fact it is technologically better able to provide such a feature than a safety deposit box. Such a comparison is not possible as modern full-reserve banking suffers from an important disadvantage vis-à-vis fractional-reserve banking since the fractional-reserve banking system is guaranteed by deposit insurance implying no threat of a nominal loss in the case of bank illiquidity or insolvency. According to Bagus *et al.* (forthcoming: fn10):

[I]n today’s fractional-reserve system, banks are privileged by implicit bailout guarantees and credit lines from central banks. Moreover, traditional legal principles are not enforced. This answers Evans’ ([forthcoming] p. 8 fn. 20) point that people could, as a matter of principle, put their money in a 100 % reserve account (e.g., a

safety deposit box). Banks abiding by traditional legal principles cannot compete with banks that are allowed to break these principles and receive support by governments and central banks—they receive a free lunch.

Thus, it cannot be a simple “empirical question” as to whether depositors perceive a fractional-reserve demand deposit to be legitimate given that they demand them as the counterfactual is not apparent. Since all modern deposits are covered by deposit insurance to some limit there is no incentive to incur the added cost and reduced physical availability of holding one’s money in a safety deposit box. Nor could a bank compete against the modern banking system by offering full-reserve banking, as the amount of customers willing to pay fees for such a service that would provide the same services as an insured fractional-reserve banking system would be, presumably, few.<sup>18</sup> The one point of agreement that all participants share in this debate on the ethicality of fractional-reserve banking is that banking services would be better provided without deposit insurance. (In fact, many in the debate question whether deposit insurance is actually feasible or whether the act is just a *ex post facto* bailout of the banking system.) Thus, comparing a theoretical full-reserve deposit via a safety deposit box with a fully insured fractional-reserve demand deposit account is not only unwarranted, but also a severe step backwards in terms of reaching consensus on the ethicality and legality of fractional-reserve banking.

Finally, we must point out that many demanded contracts are not ethical (or legal) because of the demand for them. Consider the controversy in the law over assisted suicide, whereby a

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<sup>18</sup> Money substitutes are demanded for convenience among other reasons. The convenience, however, can be achieved without fractional-reserve banking. Nair (forthcoming p. 9) seems to equate the demand for convenience with the demand for fractional-reserve banking: “If people or banks’ clients find it more convenient to use and hold bank notes or checking balances instead of the actual money, then banks will be able to engage in fractional reserve banking and hence “create” more money...” Note that the same convenience may be provided by issuing money certificates, and does not necessarily create the need to issue fiduciary media.

voluntary contract is struck between the suicide and the assister for a demanded service.

While this is an obviously imperfect example since jurisdictions can be found where assisted suicide is legal, we could just as easily ask the question of whether someone could take out a life insurance policy and then enter into a voluntary contract to have someone assist his suicide in a jurisdiction that permits such an act. Life insurance policies do not honor the payout in the event of this mutually agreed upon action because there is no definable class of people that a proper statistic can be estimated for. (Consider further the ethicality or legality (or sensibility) of the insurance company that sells the insurance policy also being the party assisting the suicide of the policy holder.)

In fact, many transactions are demanded but not considered ethical or legal. Children lack the legal capacity to contract and as such no contract entered into by a minor is enforceable, notwithstanding the demands of the child (Bagus *et al.* 2015: 202). It is not just *a posteriori* legal cases that are illegal even if voluntarily entered into. There are contracts that are invalid *a priori* based on simple legal principles. Impossible contracts (such as selling someone a squared circle) are illegal, even though there may be a demand for them. Many would also classify them as unethical owing to the either fraudulent or misrepresentative nature of the contract, notwithstanding any apparent agreement by the con-artist and the dupe.

The case of the fractional-reserve demand deposit cannot be legitimate even if voluntarily agreed upon and demanded because it lacks one of the most elemental properties of a legal contract: a meeting of the minds. In other words, even if fractional-reserve banking is not fraudulent, like all similar contracts it is considered invalid since the purposes of the contracting parties must be aligned and agreed upon. This is not the case with deposit banking where the purpose of the deposit is to have full and complete availability of a

deposited sum (alternatively stated as the depositor demanding a perfect money substitute to the extent that he desires the deposit to redeem at par value, on demand). The purpose of the fractional-reserve banker is to make use of the deposited money (i.e., treat it as a loan) in order to earn a profit. There is no commonality in these two activities as they are diametrically opposed in terms of the intents, rights and obligations of each party. Demand for a product could plausibly be a necessary condition for legal and ethical contract formation (though we doubt this – all sorts of un-demanded activities would be perfectly fine in a free society). Thus, demand for an action or contract cannot be a sufficient condition justifying the ethicality or legality of an action. In a free society, fraudulent activities as well as invalid contracts are prohibited. There is no place for fractional-reserve banking in such a society.

## **5. Conclusion**

We have focused this article mostly on Nair (forthcoming) notwithstanding the fact that she raises points that are not unique to her but because of her clarity of presentation and attention to important issues concerning the ethicality of fractional-reserve banking and its legality in a free society. In particular, she places attention on three main aspects of the debate: 1) what type of financial product could substitute for a demand deposit, 2) whether client collaboration with the banker is adequate to justify the ethicality of a deposit, and 3) whether demand for a service alone is a sufficient condition to demonstrate the ethicality of a given act.

In many ways, the question of whether fractional-reserve demand deposits are ethical or legal rests of a broader discussion of: 1) what is money, 2) what a demand for it implies, and, 3) what role perfect money substitutes have in the financial system. Unlike goods in general which have a subjective value based on the direct utility bestowed on their user, money

(especially fiat money) has value only to the extent that it can be exchanged to settle pecuniary obligations. In this respect money is not especially unique, as all goods can be exchanged directly to settle transactions (as in the case of direct exchange) and financial assets acting as claims to money, e.g., equities or bonds, can serve the same purpose. Money is unique because it serves as a means of exchange and trades at par value, on demand. The demand for money comes about only when one is uncertain about the timing and magnitude of a future expenditure. These two uncertainties can only be mitigated by the use of money, which gives the holder an on demand, par value instrument to use when unforeseen expenditures arise.

As such, the demand for money is a demand to reduce uncertainty. Demand deposits, to the extent that they are also on demand, par value financial assets, serve as a perfect money substitute. Since the demand for such a perfect substitute must be the same as the original good, the demand for a demand deposit stems from the same origin as that of money – a demand to hedge one against the uncertainty of their future expenditures.

There are many *imperfect* money substitutes, to the extent that they protect the holder against the uncertainty of the future timing of an expenditure (as is the case with an equity, whose value is also available on demand) or the magnitude of an as yet unknown expenditure (in is the case with a bond, whereby the value is available in a predefined, or par value, amount). There are also financial products, such as insurance policies or “callable” loans, which despite outward similarities to demand deposits serve distinctly different purposes than to satisfy a demand to reduce uncertainty, and as such are not useful analogies to compare demand deposits to. Demand deposits serve an identical role in the financial system as money does: to provide an uncertainty hedge to the holder. No other financial product today

is able to provide this service (i.e., act as a perfect money substitute).<sup>19</sup>

As an extension, Nair claims that collaboration (or what others would call mutual agreement) signals the ethicality and legality of a contract. However, owing to the legal ambiguity of the fractional-reserve demand deposit contract, it is questionable whether such collaboration exists. Depositors, from their point of view, are bestowed with all the contractual rights and obligations of a deposit while bankers are assigned the rights and obligations of a borrower. There can be no collaboration with such diametrically opposed terms and conditions.

Finally, Nair considers whether the voluntary nature signaled through the demand for a good or service is a sufficient condition to justify it legally and ethically. To this we have brought forth examples of other demanded goods and services that are inherently illegal, or even if they were *ex post facto* justified by the legal system, could still be considered unethical. Not all things demanded need be legal, and not all legal activities are in demand.

Banking crises bring forth feelings of ire directed at the banking establishment. What makes banks unique is that they offer a financial product that no one else does: the demand deposit. The demand for the fractional-reserve version of this product is apparent today because it is secured exogenously by deposit insurance notwithstanding the fact that “insurance” is inapplicable to banking activities. Depositors are given an erroneous sense of assurance that fractional-reserve demand deposits can function as perfect money substitutes. Recent events have demonstrated this to not be the case, whether with Iceland’s financial crisis of 2008-11, the Cypriot crisis of 2012-13, the Greek bank holidays of 2015, or any number of jurisdictions where a bank has become insolvent and depositors above a certain threshold

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<sup>19</sup> Bank notes did serve as money substitutes under the commodity standards of the past.

were not protected. It is these *ex post facto* cases that illustrate the rights conflict and undue relaxation of obligations that define the legal aberration of the fractional-reserve demand deposit. In fact, the ire directed at these bankers is far removed from the feelings of loss associated with a dwindling stock portfolio or a bond that declines in value as interest rates rise. The reason for the difference of feelings is that the demand to hold money, and by extension, perfect money substitutes such as demand deposits, is not to provide a highly liquid means of payment masquerading as an investment (as evidenced by the interest payment in a fractional-reserve banking system). Individuals hold money to satisfy their unease stemming from the uncertainty of the future. To the extent that the modern banking system has been granted a legal privilege to change the underlying nature of the deposit contract without obliging depositors to renunciate any of the benefits of the same, a legal aberration has been created whose benefits are not only unclear, but whose ethical nature is highly suspect.

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