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Oil and water do not mix, or: aliud est credere, aliud deponere¹

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Abstract: The financial crisis has led to new interest in the ethics of financial markets. In this article we further the debate on the nature of banking contracts by showing that the fundamental subjective purposes of loan and deposit contracts are irreconcilable. Any resultant mixture of the two contracts is a legal aberration. We consider a mutual fund as an important and legitimate alternative to the common demand deposit to provide high liquidity and some yield without offering full availability of a nominal sum. Besides being a close substitute for how many deposit accounts function today, the mutual fund has the additional benefit of satisfying all legal and ethical requirements. Loan and investment contracts (such as money market mutual funds) allow for the "bank" to make use of their clients' funds while the intents of money owners are clearly classified without running into legal or ethical problems.

¹ "Lending is one thing, depositing another thing." We thank the great 3rd century Roman legal scholar Ulpian for this quote from *Digesta* (42, 5, 24§2). Acknowledgements to be added...

Oil and water do not mix, or: aliud est credere, aliud deponere

The financial crisis has led to new interest in the ethics of financial markets. Many have criticized the behavior of bankers. But which banking practices are ethical and which are not? And how do they contribute to the instability of financial markets and economic crisis?

Most recently, Evans (forthcoming) has addressed these questions by providing a legal and ethical analysis of the fundamental banking contract – the fractional-reserve demand deposit. His chain of reasoning results in a conclusion that bankers have done nothing fundamentally wrong from an ethical or legal perspective.

Evans uses two types of arguments to demonstrate that a fractional-reserve deposit contract is legitimate. On the one hand he blurs the line between irregular deposit and loan contracts in an attempt to equate the two. On the other hand he attempts to redefine the concept of availability, claiming that the depository's obligation to keep the *tantundem* available should be interpreted more "loosely".

While we think Evans has made some important and insightful arguments, there remain ambiguities in the analysis. In this article we address these shortcomings. More importantly, we provide a guide to assess what practices banks have partaken in that have rightly drawn the public's ire over the past five years.

Equating deposits and loans

In order to equate deposit and loans one has to diminish or deny completely the differences between loan and deposit contracts regarding the exchange of present goods and future goods, availability, interest, purpose, term and obligation.

The first difference Evans attacks is the exchange of present goods against future goods in loan contracts and its absence in deposit contracts, where depositors gain a claim on present goods. He (p. 4) argues that a fractional-reserve demand deposit is also a present good if accepted in money exchanges.

It is true that a bank note exists in the present, as do loan titles such as bonds. Following Evans' chain of reasoning, a bond exchanged for a good must be considered a present good in the sense that a bank note also is. This is beside the point. It does not take away that a bond is a claim on future money payments, such as money in one year. There is no contractual obligation to buy the bond in the present but there is a contractual obligation to pay interest in the future.

Similarly a deposit, just like a loan of a Rembrandt painting, both give rise to titles (e.g., a warehouse receipt and a loan contract) which exist in the present. However, only the deposit contract represents a claim to get the painting back in the present.² In contrast, the lender of the Rembrandt painting gets a claim to receive his painting back only in the future. Of course, nothing stops the lender from selling the contract in the present. But even if he sells the contract the new owner will only be able to get the painting back in the future. In contrast, if the owner of the deposit contract sells his title, the new owner will be able to get the painting in the present. Deposited goods are present goods, while lent goods are claims to future goods.

In general we may distinguish between regular and irregular deposit contracts. In a regular deposit contract, specific things are deposited such as a Rembrandt painting. Such contracts are called bailments in common law. In an irregular deposit contract, fungible goods such as

² Mises (1953, 268) states: "A depositor of a sum of money who acquires in exchange for it a claim convertible into money at any time which will perform exactly the same service for him as the sum it refers to, has exchanged no present good for a future good. The claim that he has acquired by his deposit is also a present good for him."

bushels of wheat, gallons of oil or money are deposited. In an irregular deposit contract, when the depositor asks for his goods he does not receive the same units deposited but the *tantundem*: an amount of equal quality and quantity. In loans we can also distinguish loans of fungible goods such as money or specific goods such as paintings. Most monetary deposits are irregular even though regular money deposits such as coins in sealed bags also exist. The advantage of monetary irregular deposits is mainly the reduction of costs. It would be very costly to store the coins of individuals separately in sealed bags. Cashier services are an additional advantage of irregular monetary deposits versus regular monetary deposits (Huerta de Soto 2009, 6). Moreover, in a regular deposit, the depository is not responsible for losses due to natural catastrophes or other inevitable accidents. In an irregular deposit, in contrast, the depository is even responsible in the case of inevitable accidents (Huerta de Soto 2009, 7). Evans (p.7) does not seem to be aware of this distinction and this reason to prefer irregular monetary deposits to regular monetary deposits

The second difference Evans attacks is availability. The availability of the good in a loan contract is transferred from the lender to the borrower, while in a deposit contract the depositor maintains availability fully. Evans (p. 4) claims that availability must not “reside with a single person” but may be shared, and supposedly in a fractional-reserve banking system this availability is shared by depositors and the bank. Evans here uses interchangeably two separate concepts: ownership and availability. Ownership can be shared, availability cannot.

Two persons may jointly own a tennis racket. But there is only one who can play tennis with it at any one time. It is a physical constraint that the racket is not available for both at the same time. The dual-ownership nature of the tennis racket is not problematically viewed provided that each uses the racket at a different time and, perhaps most importantly, that they

never play each other. Imagine the debate over who gets to use the racket if each player makes it to the final, but there is only one racket between the two of them.

In fractional-reserve banking both the bank and the depositor think the money is available to them. As in the tennis example, while this dual-ownership structure is not in and of itself problematic, dual-availability of the racket is impossible. In fact, two parties having a good available to them at the same time is the root of the problem; it simply cannot be.

Later, Evans attacks availability from another angle. He (p. 6-7) argues that there is no obligation for a depository to make the deposited goods completely available because access is normally restricted due to office hours or waiting periods. However, the important point is that deposits must be continuously and fully available in the legal sense.³ In our world, there is always a certain time lag until the depository (i.e., bank) can honor its obligation due to verification issues, to the need to physically move the deposited goods or institutional restrictions such as business hours. This physical reality is no different than the one which exists in the time it takes for you to move cash from one's wallet to settle a transaction with a merchant. A necessary time lag in moving money to make it available is an unfortunate reality (or a "friction") but does not negate the legal obligation.

These physical, technological or institutional constraints and their implied waiting periods, however, do not affect the obligation for the depository to convert the deposit into a loan. Evans (p. 7) continues his argument by saying that there are similar waiting periods in fractional-reserve banking, as is the case when a bank must liquidate an asset to pay off a depositor. We maintain that the nature of these waiting periods is categorically distinct. In the case of a genuine deposit the waiting time is caused by technological constraints and does not endanger the principal aim of the contract. In the case of a fractional-reserve demand deposit (without an exogenous safety net such as a central bank or deposit insurance plan supported

³ Elsewhere we have dealt with this argument extensively (Bagus and Howden forthcoming).

by the government) there is no guarantee that the waiting period will not last forever because the deposited goods are simply not there. It is one thing that a depositor of a painting has to wait, e.g., five minutes, as the depository retrieves it from the safe. It is a fundamentally different issue when the depository has misappropriated the painting and sold it to buy an asset. Of course, it can try to sell the asset and buy the painting back, but there is no guarantee of success. In the first case availability is maintained at all times, in the second case, availability was not maintained, even if the fraudulent depository manages to buy the painting back after some time.⁴

Next Evans denies that the essential motivation for the deposit is safekeeping. He further argues that safekeeping does not require “continual availability”, and states (p.4): “When I leave my car with an airport valet for two weeks it is precisely because I *don’t* want to use it for a certain period of time.” His implication is that banks, like valets, do not have to keep available the money deposited continually available as per the safekeeping motivation for the deposit.

We are sure that the person leaving the car at the airport does not plan to use it within two weeks, but he does want to have the car available upon his return. Imagine that the person unexpectedly returns home one week early from vacation. He is then told by the airport that they cannot give him his car now, but that he must wait another week and should not worry because the car is safe. We believe he would be rightly upset. The valet’s lending of the car to another party is against the purpose of the contract. If the car is kept safe, it will be continuous available regardless of the time necessary to get it out of the high security garage.

⁴ 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 (Bitner *et al.* forthcoming).

Alternatively, one could consider that even if the valet knew that the owner would not come back early and is “certain” that he will have the car available to the owner upon his return, the car’s owner surely does not intend for anyone to make use of it while he is away. After all, if this was the case we would expect that he would not pay to deposit a car with the valet for safekeeping but would instead lend the car to another to use and earn a payment over this period.

Later, Evans (p.6) tries to blur the lines between deposits and loans by arguing that tradeoffs at the margin are possible. Specifically, he states that a tradeoff between safekeeping and availability is possible. We now understand that no such tradeoff is possible. When the car is kept safe, it remains available for the depositor and when the car is not kept safe it may not be available. A tradeoff of costs and safekeeping is, in contrast possible. A depository that invests more resources in the custody of the deposited good tends to charge a higher fee for his services. There is a categorical difference between something being available and lent. There is only a difference in magnitude between the different levels of safety that can be had by making a good available to the depositor.

Evans, furthermore, tries to diminish the importance of safekeeping by arguing that warehouses can also go bankrupt through mismanagement and therefore safekeeping involves “the possibility of the loss of the property” (p. 7). We beg to differ. When the safekeeping obligation is fulfilled then there is no loss of property for depositors even if the depository goes bankrupt. Consider equity deposits held by a custodian. Even if the custodian goes bankrupt due to mismanagement, the shares in question held by the custodian are still the depositor’s property and are not lost.

The fourth distinction between loan and deposit contracts that Evans attacks is the term limit of loans, as expounded in Bagus and Howden (2012, 296), by criticizing the idea that a loan must always have a specified and finite term. While there need not necessarily be an explicit

term in a loan contract, there is necessarily always an implicit minimum and maximum term. Consider the following example: person A lends a DVD to his friend B. There may not be an explicit term to return the lent DVD as is often the case among loans between family and friends, where the level of trust is high. Normally the interest is waived as well.

There must be a minimum term by necessity so that the borrower can have some time period to make use of the lent good. A loan with no minimum term would hinder or eliminate the possibility for the borrower to use the good, a necessary condition and defining feature of any loan contract. In this case the implicit minimum term could be the amount of time reasonably needed to watch the film.

There must also be an implicit maximum term otherwise it would be a gift; the lender does expect to get his DVD back at some point. This maximum term could be determined through tradition or convention. It could be the amount of time beyond which it would be considered offensive to the lender that you have not returned his DVD. Alternatively the maximum term could be defined as the amount of time until the pair's next meeting. The implicit maximum term solves Evans' conundrum of *ex post* determined terms: "Imagine I give a friend [note he does not deal with a banker or stranger] some money and tell him that he only needs to pay back when he can afford it" (p. 4). The implicit maximum duration of the loan is the time period necessary for Evans' friend to save the money required for repayment. This example explains the opprobrium felt when a monetary "loan" to a friend made without explicit terms is not repaid once the original giver feels the receiver has the ability to repay. If the giver considers his friend still unable to repay the money it remains a gift; once the criteria of ability to repay are perceived to be met, the maturity of the loan becomes apparent.

Evans goes on to give several other supposed examples of loans without term or hybrid instruments. He (p. 5) cites White (2007) and refers to home mortgages and student loans with prepayment provisions. Prepayment provisions do not detract from the fact that there is a

minimum term. Similarly, Evans mentions “callable loans”, which are “repaid on lender’s demand.” Since Evans is keen to not impose definitions on concepts it is ironic that he focuses on the names of contracts instead of their essence. A “callable loan” meets the economic and legal description of a deposit. We could just as easily call a “stock” a “bond”, but this would not change the essence of either: stocks are a financial asset redeemable on demand at market value while bonds are redeemable after a defined maturity at par value. “Perpetual bonds” or “perpetual gilts” are not loans without term either because the invested money is never paid back. These instruments are rather equity instruments promising a fixed dividend. (Bagus *et al.* (2014) consider further the economic and legal legitimacy of callable loans and perpetual bonds.)

Lastly, Evans cites George Selgin’s (2010) London goldsmith example of banking contracts that are supposedly neither loans nor deposits. Bagus and Howden (2009) and Bagus *et al.* (2013) explain the possibility of aleatory contracts like lottery contracts, where the payout is uncertain. We doubt that Selgin’s goldsmith example even illustrates a functioning aleatory contract, while Kim (2011, 955) has unearthed new evidence showing that goldsmiths fraudulently used the money of genuine deposit contracts to issue additional titles.⁵

Moreover, aleatory contracts are against the nature or the purpose of holding money (Bagus and Howden 2013). Money holding only serves one purpose: to reduce felt uncertainty. It is a safeguard against the uncertain future (Mises 1949, 249). In a certain world no one would need to hold money. Entering an aleatory contract introduces uncertainty because it is unknown what the payout will be. The essence of aleatory contract contradicts the purpose of holding money to reduce uncertainty. Furthermore, since money is a present good with no possibility to return a positive rate of return (while simultaneously potentially earning a

⁵ Kim (2011, 955) classifies the contracts offered by goldsmiths as “self-contradictory” establishing “double-ownership.” He mentions “illiquidity” and “bank runs” on goldsmiths, as well as general goldsmith banking crises (946). Furthermore, the “coexistence of two disparate purposes” of the deposit and loan contract was already noted by contemporaries of the gold-smiths (947-48).

negative return due to inflation), no one would hold money unless the services rendered by it – mitigating felt uncertainty – outweighed these costs.

A survey quoted by Evans (2010) shows that the vast majority of bank clients today also want deposit contracts and not aleatory contracts. Over 80 percent of respondents use current accounts at their banks because they want the money to be available (i.e., they seek safekeeping and convenient access), while only 10 percent claim “because it earns interest” as the primary reason they hold money in a deposit account.

Evans takes further issue with the payment of interest in the case of loan contracts while depositors must pay for the services of safekeeping and custody, stating: “It is perfectly possible for a depositor to receive interest payments, should the two parties in the exchange find this mutually beneficial” (p. 3). In light of the legal principles governing each contract, this statement is the same as saying: “It is perfectly possible for the buyer of a car to be paid for the purchase if the two parties in the exchange find this mutually beneficial.” Stating the latter misunderstands what a purchase is; to state the former fails to understand what a deposit is.

Another way to blur the lines between deposit and loan contracts is to state that the differences just depend on definitions. Yeager (2010) maintains that defining loans and deposits differently would make fractional-reserve banking legitimate. Cachanosky (2011, 221) makes a similar argument, as does Evans (p. 5) who thinks that scholars and practitioners who invoke the definitions of deposit and loan “seem to be defining terms in a way that create unnecessary problems.” Furthermore, Evans (p. 4) also claims that the arguments against fractional-reserve banking “rest a great deal on the validity of definitions being used.”

However, definitions are not valid or invalid. A theory or an argument may be valid.

Definitions, in contrast, just explain the meaning of a term. We are here simply calling a

certain type of contract a “deposit”. It does not matter if we call the phenomenon differently, such as a checking account or instant access account or even “callable loan”. We are not debating names but rather real entities – the essences of contracts. The essential point is that such types of contracts, where people deposit money to maintain full availability, exist (and have for quite some time) and that they have certain characteristics. Why not use the name they have received traditionally? Indeed, deposit contracts were not only in use already in ancient Roman times, but Roman legal theorists had already analyzed the implied obligations and pointed to the differences to loans (Huerta de Soto 2009, 20-36). Our argument makes use of a term which has historically been used in a non-arbitrary way. “Deposit” and “loan” mean nothing outside of the rights and obligations inherent in each, just as the word “apple” or “pen” mean nothing without reference to the essences that define and differentiate them.

There have been and there still are deposits of fungible goods such as wheat, oil, or money. The use of the word “deposit” to describe them is in accordance with historically and currently accepted terminology. The legal obligations implied in these contracts have been clear since at least Roman times. Good laws must apply equally to all people and all goods at all times (Hayek 1939). We abide by this rule by treating the obligations for all depositaries as the same, namely to keep available the deposited goods or the *tantundem*. Incidentally, supporters of fractional-reserve banking, such as Evans, must explain the simple conundrum of why distinct legal obligations exist for some types of fungible deposits (like money) but not others, such as cereals like wheat.⁶

⁶ There was a period in the United States when fractional-reserve grain elevators operated. The result was similar to what we see in banking: overexpansion in the perceived supply of wheat, price discoordination and an eventual crisis when this became apparent. The only reason that banking is different is that there is an exogenous institution capable of creating more money titles *ex nihilo*, something the grain elevators were unable to do. We strongly suspect that supporters of fractional-reserve banking do not support central banks in this role, and even if they did it would necessitate the practice resulting in the same circumstances that led to a ban in fractional-reserve grain elevators in 1860s (Williams 1984).

Over time governments failed to enforce the traditional legal principles of monetary irregular deposits. They do enforce the principles for deposits of other fungible goods such as wheat or oil. A special privilege is given to bankers (but not to private persons) to violate these obligations in the case of monetary irregular deposits (not for irregular deposits of other financial assets, e.g., stocks).⁷ The practice of fractional-reserve banking was legalized *ex post*.⁸ Trying to demonstrate the legitimacy of fractional-reserve banking by appealing to fluid definitions, as Evans does (while simultaneously claiming that this is not a good tactic for argumentation), fails to understand the true nature of deposit contracts and loan contracts (Bagus and Howden 2011).

Evans notes that money deposited in British banks is legally not the money of depositors but is legally a loan owned by the bank. The general public is ignorant of this as Evans has shown (p. 5 and Evans 2010) and the majority of people think that the money in their accounts is theirs. This disconnect between what people think is occurring and what does occur in a bank deposit is for Evans largely irrelevant and “just one more example of financial illiteracy” (p. 5). We beg to differ. The fact that people think their deposit is their money and believe it is available while the bank uses it is *the* crucial problem of today’s fractional-reserve banking system. From a legal, economic and ethical point of view these subjective beliefs are essential. Valid contracts rely on a “meeting of the mind.” (Bagus *et al.* 2013, 635). If I subjectively think I am renting a house and the other party subjectively thinks he is selling me the house, we may shake hands in agreement but the contract is invalid. If one party is not

⁷ Bagus *et al* (2014) discuss the legal legitimacy of the practice of securities lending, which is an analogous case to fractional-reserve banking in the world of investment accounts.

⁸ In Spanish law, Articles 306 and 307 of the Commercial Code point to a safekeeping obligation for depositaries including the case of monetary irregular deposit contracts. However, the law is not applied consistently as in practice fractional-reserve banks are not penalized for breaking the contract. It is, however, applied in this way in the case of bulk deposits of oil in olive mills. (Huerta de Soto 2009, 125, 129.) In Germany the case seems to be even clearer. Legal scholar Köhler (2013, 916, 918) maintains that the privilege of money creation implied in fractional-reserve banking is not only unjust from a natural law perspective; it stands also in contradiction to the existing private legal order. No German positive law allows for “money creation” by banks. “Money creation” is neither contractually agreed upon nor regulated in German civil law (919-20).

aware of a fundamental detail of the contract, it is invalid. If people think they make a genuine deposit and the bank thinks it receives a genuine loan, the contract is equally invalid.

Evans attacks the idea that deposit and loan contracts entail different purposes, claiming that our argument suffers from the “absence of subjectivism” inherent in choice (p. 6). He makes the further claim that contracts do not have purposes; only individuals do. Consider the following claim: The purpose of a contract of sale is the exchange of goods from seller to buyer for an agreed sum of money or other good. Is this statement untrue because of a lack of subjectivism? When the individual “subjectively” wants to maintain complete availability of the good, the essential element of the contract is safekeeping and custody, and the contract is called a deposit. On the contrary, when an individual enters into a loan contract, he does it with the essential element or motivation of transferring the availability of the goods in exchange for a payment, e.g., interest. Legal scholars agree on the fundamentally different purposes of loans and deposits and we are not sure what is gained by taking the tack, as Evans does, of claiming the purposes of any contract can be different for each side of the transaction.⁹

As a final line of defense of fractional-reserve banking, Evans argues that “Austrian-school economists tend to believe that public ignorance is not a sufficient condition to ban an activity” (p.8).¹⁰ Thus, he acknowledges that many bank customers are not aware of what happens with their money, namely that the bank becomes the owner of the money in their

⁹ See Huerta de Soto (2009, p. 17, fn. 18) for a small selection. See also legal scholar Köhler (2013, 891) who maintains that money creation by banks must be ended because it violates legal principles. He (2013, 908) considers today’s bank accounts as an example of deposits, as they fulfill the economic and legal definition of deposits, not loans. Köhler (912) regards the simultaneous existence of the purposes of deposit and loan contracts from a legal point of view as logically impossible.

¹⁰ Contrast this with the naivety of his later statement (p.14): “For free bankers, by contrast, everything is legitimate within a free market in banking.” One cannot have a modern free market without a legal system. The legal system adheres to some *a priori* and evolved legal principles (e.g., though shalt not murder; children and others lacking sufficient mental capacity cannot legally contract, etc). The legal principles of such a system are what define the free market.

account. Herein, Evans shares the belief widespread among libertarians that all voluntarily agreed contracts would be valid in a free society.¹¹

We submit that this may be *the* fatal and crucial error of fractional-reserve bankers.

In distinction we insist that there exist voluntarily agreed upon contracts that are not legitimate in a free society (Bagus *et al.* 2013). There are both *a priori* and evolved legal principles that distinguish valid from void contracts. For instance, if A hires B to assassinate C and later B does not fulfill his contract, courts in a free society will consider the contract *void ab initio* (as they do today). Similarly, when A sells a toy to a 2 year old for \$2,000,000 payable when the boy is 20 years old, this voluntary agreed upon contract would be considered invalid; the child lacks the capacity to contract. Once it is accepted that not all voluntarily agreed upon contracts are valid in a free society we will make a crucial step forward in the debate.

In a similar way, contracts are null and void when there is no meeting of the mind. If A thinks he is making a deposit and B thinks he is receiving a loan, there is no valid contract even if A and B shake hands in agreement. Public ignorance of the fact that bankers make use of the deposited money implies that such contracts are void, they are just unknowingly so. Yet public ignorance is not necessary to make the fractional-reserve banking contract void, because contracts that are impossible to fulfill are also void. When A sells a “squared circle” to B, even though both voluntarily agree on the terms of the contract, no court would or could enforce the contract as it is simply impossible to fulfill. Similarly, even if depositors know that bankers appropriate and use their money as a loan, the contract is void. Not only are the safekeeping and availability motivations of the contract incompatible, but it is also impossible

¹¹ Of course, in 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’ (p. 8 fn 20) point that people could, as a matter of principle, put their money in a 100 percent 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

to carry out even if they were not. No good can be completely available to the depositor and be lent out at the same time.

The attempt to redefine the concept of availability

The criteria defining loan and deposit contracts result in incompatibilities when trying to combine them as one. A different tack to justify the practice of fractional-reserve banking is to redefine the concept of availability by using a loose definition. The obligation of maintaining complete availability for the depositor would be fulfilled if the depository invested the funds prudently or in liquid assets. A similar but innovative twist is given by Evans who claims that his “article intends to shift debate away from whether fractional reserve banking is fraudulent, to whether or not it is a solvent business practice” (p. 8).¹² We agree with Evans that it is a very important question if fractional-reserve banking is a solvent business practice or systematically induces business cycles leading to its own demise (something we have dealt with elsewhere, in Bagus and Howden 2010a; 2011). However, we also agree with Davidson and Block (2011) that the question of ethical legitimacy of fractional-reserve banking comes first. In fact, Evan’s shift in argumentation affects the legitimacy question as he regards solvency of a depository as a substitute for the availability of the good it guards. When he writes “solvent” he means “liquid.”¹³

As methods to provide sufficient solvency Evans names auditing (showing sufficient liquidity), the use of margins and the voluntary restriction of limited liability protection. He further argues that the problem of availability could be solved by calculating probabilities of withdrawal, suggesting that “banks are able to reasonably expect to satisfy payments as they

¹² In contrast to his introduction where he assures the reader that “[t]his response will focus directly on the legitimacy of fractional reserve banking” (p.2).

¹³ He writes, e.g., “If you consider a demand deposit (or indeed an overdraft facility) to be continuously ‘due’, then all banks and many businesses are insolvent” (p. 8)

fall due” (p. 7). He maintains that with entrepreneurial judgment fractional-reserve banks can fulfill payment requests.¹⁴ By using insurance and probability theory the fractional-reserve bank will supposedly be able to hold a sufficient amount of liquid reserves necessary to maintain deposit availability. He concludes that it is possible to insure a fractional-reserve bank (p. 7), a conclusion he shares with other free-banking theorists (Selgin 1988: 135, 1989: 211; White 1994: 29).

“[B]ank run insurance” (p. 10) or the application of probability theory to redemption demands is, however, impossible. To understand why, consider Mises’ (1998, 107-113) distinction between case and class probabilities. In class probability one can know the behavior of a general class without knowing anything about the behavior of the individual elements within the class. In the events of class probability we are faced with risks which are insurable through the law of large numbers.

In case probability there is no general class but only unique events. Actions resulting from human action comprise these cases, and represent uncertain, not risky, events. One cannot insure a company against bankruptcy, a marriage against divorce or a bank against a run, because an objective calculation of probabilities applicable to human actions is impossible; any human action is unique. Consequently, it is impossible to calculate a sufficient reserve ratio to insure against bank runs. The concepts of solvency or auditing cannot modify the essential meaning of availability in the monetary irregular deposit contract (Huerta de Soto 2009, 150).

¹⁴ For Evans borrowing short and lending long, as well as fractional-reserve banking are legitimate as payment requests can be honored. The bank may be able to pay back the short-term loan and the deposit if it has sufficient reserves. Considering the different obligations of loan and deposit contracts, we have seen that this is not true. The obligation in a loan is to pay the money back at the end of the term. Maturity mismatching does not make the fulfillment impossible. The obligation in a deposit is to maintain full availability at all times. Using part or all of the deposited money does violate this obligation.

Actually, the institution of fractional-reserve banking fosters a chain of events ending in bank runs in the absence of a central bank (Bagus and Howden 2010a; 2011).¹⁵ Fractional-reserve banks may lend funds even though real savings have not increased.¹⁶ A discoordination between investors and savers/consumers results. After an artificial boom fostered by credit expansion, malinvestments are revealed in a bust. In the following recession, many bank assets lose value, such as mortgage-backed securities or housing related assets during the most recent financial bust. Asset losses during a recession result in a loss of equity acting as a solvency buffer for the fractional-reserve bank. At some point depositors lose confidence in their banks and runs ensue; history is rife with examples. In fact, all fractional-reserve banking systems in history have failed and it was only the emergence of central banking which prevented widespread failures of the current banking system.

Evans points to bank's assets and implicitly redefines the availability obligation as the obligation to invest in safe and liquid assets: "cash reserves are not their [the banks'] only assets" (p. 13). Yet the asset side of the fractional-reserve bank's balance sheet is irrelevant for the legal issues raised and less important still for the economic issue than Evans believes. As the legal obligation of demand deposits is to maintain complete availability of the *tantundem* to the depositor, its use by the depository is illegitimate. It is irrelevant if the depository uses the deposited funds to buy a television set, equity or highly liquid government bonds. Even if the depository can return the funds at the depositor's request, a

¹⁵ Evans (p. 4) maintains that "for the purpose of this article it is not important whether or not fractional reserve demand deposits would ... cause the boom bust cycle." We beg to differ again, since if the practice of credit expansion causes a bust then bank runs become likely. On the possibility of a fractional-reserve banking system causing business cycles see Mises (1998, 439 Fn. 17, 570), Hoppe (1994), Hülsmann (1996), Huerta de Soto (2009), or Bagus and Howden (2010a, 2012). Excessive maturity mismatching induced by government interventions and central banking may cause similar intertemporal discoordination (Block and Barnett 2009; Bagus 2010; Bagus and Howden 2010b). We, however, do not regard the practice of maturity mismatching as unethical *per se* in contrast to fractional-reserve banking which is unethical as such.

¹⁶ The absence of central banking does not preclude coordinated credit expansion of fractional-reserve banks. Indeed, fractional-reserve banks can and did cooperate. Historically, interbank markets worked as cooperation devices (Bagus and Howden 2010a, Gertchev 2013, Howden forthcoming). Moreover, banks historically accepted their rivals' notes at par value allowing for credit expansion. For the case of cooperating goldsmith bankers in England, see Kim (2011, 956fn15).

misappropriation has occurred. Take a wheat elevator where farmers deposit their harvest. Imagine that the depository uses part of the deposited wheat to speculate on future markets and wins. He can pay out depositors without problem. (Even if he loses he can still pay out the depositors provided that a sufficiently low number of them ask for their wheat at any one time.) If, however, depositors discover the use of the deposited funds, go to court and prove the misappropriation, the depository will be convicted in all developed countries of the world even though he was able to pay out depositors. And what is true for wheat also holds true for oil, sugar, and money (in the case of non-bankers). Only bankers get the privilege to violate traditional legal principles.

As a last line of defense, Evans invokes financial innovations: option and withdrawal clauses. Financial innovations, indeed, may develop contracts that are equivalent in all but name with demand deposits. It should be clear by now that we are not concerned with names but with the essences – purpose, intent, obligation, rights – of a contract. If the essential element of the contract is custody or safekeeping and not the transfer of availability, we are faced with the equivalent of a demand deposit. Any perfect substitute of a demand deposit must abide by all the same legal obligations.

Evans names two specific constructions, namely option and withdrawal clauses. A withdrawal clause on deposits specifies that the depositor has to give x days notice before he can redeem his money. Banks may choose not to exercise the withdrawal clause as is the case with many “time deposits” today. Customers may regard these “time deposits” as continuously available to them because the withdrawal clause is normally not invoked. These instruments are then also equivalent to monetary irregular demand deposits. Evans even admits that “a withdrawal clause allows a time deposit to function as a demand deposit” (p.12). As in such constructs with a withdrawal clause, the depositor does not want to transfer availability and to him it

functions as a demand deposit contract the same legal principles apply; to wit, the depositary's obligation to keep a 100-percent cash reserve.

A similar reasoning applies to "option clauses" which as Evans rightly notes are just the other side "of the same coin" (p.12). An option clause gives the bank the option to delay in the redemption of the deposited funds. In other words, the deposit can become a forced loan at the will of the banker. Thereby, one important characteristic of money, namely its complete, unconditional availability to reduce uncertainty is removed. If the "depositors" regard these instruments as perfect money substitutes (with unconditional availability), the option clause is incompatible with the purpose of the contract.¹⁷

If people do not regard these instruments as perfect money substitutes, they become akin to "lottery contracts" or "aleatory contracts."¹⁸ In such contracts you make a payment and do not know if or how much of something you are going to get back. In a "bank" or "lottery" run, repayment depends on the luck of where you stand in the line and if the option clause is invoked.¹⁹

"Lottery" or "aleatory contracts" are fundamentally different from deposit or loan contracts, where the lender or depositor knows what amount he contractually has the right to receive in the future, or which is always available to him. Evans tries to deny this distinction by

¹⁷ According to a recent survey (Evans 2010), most people today regard these instruments as perfect money substitutes or want them to be like them (they want convenient access). The same is true for the beginning of fractional-reserve banking. As Kim (2011, 944) points out merchants regarded goldsmith account notes as "ready cash." Kim hints to the fateful decision in common law by stating: "In contrast to merchants' opinion, however, common law courts regarded the bankers' notes as credit." In fact, as Kim notes there was an "exception" made in common law for banks' demand deposits (947). As Rothbard (1994, 93) notes, in the case of depositaries, like grain elevators, the obligation of safekeeping was (and is) upheld by common law courts.

¹⁸ Hoppe (1994, 71) comes to the same assessment. He adds that these lottery tickets do not fulfill the traditional functions of money. Hülsmann (2003) does not use the term "aleatory contract" or "lottery ticket" but regards the construct as an IOU with a redemption promise. See also Huerta de Soto (2009, 711-12).

¹⁹ That people actually do not want to make "aleatory contracts" when they deposit money is shown by their reaction when they stand last in line during a bank run. They are not just complaining about bad luck as they would do when they do not win in a lottery or the investment fund they bought loses value; they actually get angry, sometimes even violent. This is so, because they "subjectively" regarded their money in the bank, and the deposit to be theirs: they wanted, and thought they had, a demand deposit.

claiming that everything is uncertain. He is right that it is not 100 percent certain that a deposit will be paid on demand, since a bank may be robbed or that the deposit contract may be violated. This is beside the point. If the bank fulfills the obligations required in demand deposits and successfully safe-keeps the money, the depositor always has his money at his disposal. In contrast, in an aleatory contract the principles ruling the contract itself make it uncertain what is paid out, i.e., even if the seller of the aleatory does not violate the principles of the contract and fulfills it perfectly, the buyer does not know what will be paid to him.

Finally, Evans (p. 10) argues that fractional-reserve banking is legitimate as “companies are able to sell obligations that it knows [*sic.*] it cannot redeem” in other cases, such as overbooking of flights or “bottomless coffee.” The relevant question in these examples is whether the obligations of the contract are fulfilled, and the legal consequence of breaking these contracts proves our point concerning deposit banking contracts.

In the “bottomless coffee” contract, the restaurant has to provide unlimited amounts of coffee during the stay of the client, otherwise the contract is violated and the client is entitled to receive his money back. The same applies to “overbooking” with airline companies. If the airline company does not provide a seat, the client receives his money back and the contract is void. In the irregular monetary deposit contract, once the depository does not fulfill his obligation of maintaining 100 percent reserves providing full availability, the contract has been violated and the depositor must be returned to his original state (i.e., his money returned), with a court deciding if the bank must pay restitution for further damages.

Conclusion, and a reconciliation

Evans’ contribution to the debate on the legitimacy of fractional-banking raises important questions which we have answered in this paper. By employing analogies and examples

Evans has tried to show that there are no essential differences between loan and deposit contracts. Furthermore, he has introduced a looser concept of “availability” than that typically used in deposit discussions. By investing in liquid and sound assets, using margins, insurance, auditing, option and withdrawal clauses, he claims that the availability of funds for depositors would be maintained.

We show that all of these attempts fail to solve the irreconcilable differences between the two contracts; deposits cannot be equated with loans. The basic purpose of both contracts are fundamentally opposed and the differences of their distinctive characteristics remain insurmountable. Any mixture of the two is a legal aberration. Despite our disagreements with Evans, we are nevertheless very grateful for his reply because it advances the debate in important directions. It gave us the opportunity to clarify various issues and straighten out some misunderstandings. In spite of the general disagreement stemming from a neglect of fundamental legal principles, we are nevertheless optimistic to finally come to an agreement. Evans is very concerned for people that do not want full availability of their money, but rather want to invest it in a very liquid form that allows them a very high chance of access but not complete. He seems to fear that by eliminating the legal aberrance of a fractional-reserve demand deposit, and clearly differentiating between deposit and loans, that these people will be left without choice.

That the separation of deposit and loan contracts would eliminate this option for savers is not true, and he himself (p.10) mentions the option of mutual funds. People can save into mutual funds that invest only in short-term high quality debt instruments, thereby reducing risks and offering high liquidity during normal times. These investors do not have a claim to a nominal amount of money, since the value of their shares may fall, but it tends to be very stable and liquid, at the same time earning some yield. In other words, those owners of fractional-reserve

demand deposits today who want to invest their money and not have full availability, may simply invest in money market mutual funds, or what may be called mutual-fund banking.

We conclude – and believe Evans can agree – that nothing is gained from a pure choice perspective by legalizing the inherently contradictory fractional-reserve demand deposit contract. Deposits, loans and mutual funds offer clear cut, straightforward and legitimate options to money holders.

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