# The Economic and Legal Significance of "Full" Deposit Availability

Philipp Bagus
Universidad Rey Juan Carlos
Department of Applied Economics I
Paseo Artilleros s/n.
Madrid, 28032, Spain
philipp.bagus@urjc.es

David Howden
St. Louis University – Madrid Campus
Department of Business and Social Sciences
Avenida del Valle, 34
Madrid, 28003, Spain
dhowden@slu.edu

### **Abstract:**

Bank deposits have two characteristics: they are available on demand and at par value. Deposit redemptions face, at least given current technology, a lag between when they are requested and when they are delivered. This fact leads some to argue that as a deposit is not fully available, all deposits are, in fact, loans and that the legal obligation of the bank changes. We argue that this lag does not nullify the original economic intent of the deposit, and hence, does not alter the legal obligations that a depository faces. Deposits must be held safely to ensure that the depositor's money will be available when an unforeseen event occurs.

JEL: G 21, K10, K20, K40

Keywords: deposit availability, demand deposits, full availability, legal obligations in deposit contracts, safekeeping, fractional reserve banking

## The Economic and Legal Significance of "Full" Deposit Availability

There are two angles to assess the desirability of fractional reserve banking. On the one hand, the stability of such a system is concerned with what deposit reserve ratio is optimal.<sup>1</sup> On the other hand, legal or ethical considerations are used to assess whether the practice of holding fractional reserves against demand deposits is justifiable.<sup>2</sup>

Central to both angles is the question of whether funds placed in a deposit account represent a loan or a deposit. One strand of literature treats deposits as legally distinct from loans, implying a difference in obligation as well (Huerta de Soto 2006; Bagus and Howden 2009). One key obligation is that the depository must keep the good fully available to the depositor. Another strand of the literature treats loans and deposits as indistinct, with no real distinctions at the margin (Rozeff 2010; Yeager 2010). In this argument, deposits are a type of loan to a bank (more correctly stated as a time deposit), with only gradual differences in their availability. One key point of separation between the two contracts is that the waiting time for delivery of the demand deposit is very short, while it can extend considerably for a time deposit. As deposits and loans only differ by degree of liquidity and availability, the same legal rules apply to both; as time deposits can be lent out, so too can deposits.

In this paper we address the puzzle of whether deposit availability is indeed a distinctive problem in banking.

Specifically we answer two questions: How available *must* a demand deposit be? How available *can* a demand deposit be? On these two seemingly innocuous questions hinge great consequences for the modern banking system.

## The financial crisis and stability of fractional reserve banking

1

Defenses of fractional reserve free banking are found in George Selgin (1988), Kevin Dowd (1989), David Glasner (1989), Lawrence White (1984; 1989), and Leland Yeager (1997). The economic case for 100 percent banking is made by Hoppe (1994), Hülsmann (1996), Huerta de Soto (2006) and Bagus and Howden (2011; 2012a).

Michael Rozeff (2010), Selgin (1988), Selgin and White (1996), White (1989) and Yeager (2010) make the ethical and legal case in favor of fractional reserve free banking. The opposing viewpoint which regards fractional reserve banking as legally and ethically problematic is made in Bagus and Howden (2009), William Barnett and Walter Block (2005), Hans Hermann Hoppe (1994), Hoppe, Jörg Guido Hülsmann and Block (1998), Jesús Huerta de Soto (2006), and Hülsmann (1996, 2008).

The current European (and American) banking crises seems to have one root firmly planted in the practice of fractional reserve banking supervised by central banks. One relevant question that is being asked is whether the benefits of such a system outweigh its now apparent costs. Fractional reserve banking systems economize on reserves, thus offering banks cost savings. They also provide a service to lenders, as banks acting as intermediaries assess the risk of multiple borrowers, saving depositors from this task (Diamond 1984), or by offering "commoditized" financial products by homogenizing risk factors (Benston and Smith 1976). As demand deposits often lay unclaimed in accounts, banks take advantage of this apparent idleness to create loans for productive gain. This practice not only provides credit to entrepreneurs and profits to banks, but also reduces the cost of maintaining accounts for depositors.<sup>3</sup>

While these benefits accrue mostly unnoticed, there are significant and noticeable costs that arise periodically. The most apparent are the costs of dealing with unstable banks – those that have lent deposits to borrowers who are now unable to pay, and thus imperil the original depositor's recourse to his money.<sup>4</sup>

Solutions to this instability have come in varied forms. Traditionally the nature of the deposit contract is central to discussions on bank regulation (Bhattacharya *et al.* 1998), in part because this specific contract leaves fractional-reserve banks exposed to destabilizing withdrawals. While the preferred solutions by global central banks have more recently revolved around reactive measures aimed at recapitalizing illiquid banks, deeper issues are at stake, and alternative solutions exist.

Laurence Kotlikoff (2010) suggests reforming the banking industry among limited lines – deposits in banks will be backed by reserves invested in safe government bonds or money market mutual funds, while loan and investment

\_

Note that in full-reserve banking systems, depositors would have to reimburse banks for the service of safeguarding their funds, as was the case in some historical examples such as the Bank of Amsterdam (Adam Smith 1776, volume 2: 74). Alternatively, banks could offer deposit accounts for free of or at a reduced charge, taking a loss in order to generate additional business (Bagus and Howden 2009: 400fn5; Bagus *et al* forthcoming: fn5).

Robert Eisenbeis and Larry Wall (2002) assess the failures in regulatory agencies and weigh the costs and benefits of bank regulation, specifically in the area of deposit insurance. High deposit insurance premia guard against bank failures, but draw the ire of bankers who perceive that they are overpaying for the service, or being forced to insure more than they otherwise would. Lower premia satisfy the banking establishment, but leave the general public open to ex post losses either through bank insolvency or public sector bailouts.

activities will not.<sup>5</sup> Huerta de Soto (2006: chap. 9) goes one step further, calling for a full separation of banking activities – with deposit banks existing independently of their investment counterparts (and operating with separate reserve requirements as well). In both cases a shift towards backing the deposit base with an increase in liquid reserves is seen as a desirable and stabilizing force.<sup>6</sup>

The similarity in both Kotlikoff's and Huerta de Soto's plans is the recognition that the reserve regime a bank operates under – whether full or fractional – is essential in establishing the stability of the larger system.

Full reserves, commonly eschewed due to the high costs entailed, do have the benefit of allowing deposits to be redeemed upon request, one of their key characteristics. By not keeping a full reserve on hand to back its deposit base, the bank exposes itself to a reserve-draining run on its assets. In order to stem such runs on reserves, Economists since Walter Bagehot (1873) have recommended having a lender of last resort fund illiquid but solvent banking institutions when runs threaten capital. While this ex post solution rectifies the apparent problem of undercapitalized banks, it does little to remove the incentive that breeds the bank run under fractional-reserve systems. An ex ante solution is the use of an insurance fund to remove the incentive for depositors to doubt the availability of their deposit, thus disincentivizing reserve-draining runs (as in Diamond and Dybvig 1983). Deposit insurance came into widespread use in the 20<sup>th</sup> century, especially as a response to Great Depression era bank runs. Indeed, much regulation of the banking industry (as distinct from other industries) has come to be seen as necessary if only to evade negative externalities resulting from government-imposed deposit insurance plans (Benston and Kaufman 1996; Kaufman 1996).

The deposit insurance solution rectifies the apparent problem of the run, though introduces new ones. Foremost

-

O'Driscoll (2010) criticizes Kotlikoff's plan for prohibiting necessary leverage in banking, and convincingly argues that a prohibition of bailouts would be sufficient to limit leverage in the financial services industry. He also points to the overregulation issues that Kotlikoff's plan entails, focusing on the risk of capturing the regulator.

Along similar lines, but more concerned with the base money regime, is O'Driscoll's (2009) monetary reform plan. While recommending a commodity to replace fiat money as the base money standard, O'Driscoll does not touch upon reserve requirements as a source of banking sector instability.

Although traditionally the lender of last resort only lent to illiquid but solvent institutions, Kaufman (1999) finds that during the United States' S&L crisis in the 1980s, over 90 percent of all emergency lending from the Federal Reserve went to institutions that subsequently failed. Kaufman holds that private institutions are better able to assess whether a bank is solvent and lend accordingly, a difficulty that central banks lacking a hard budget constraint face.

among these is the moral hazard that deposit insurance creates. Removing the threat of depositor losses also removes the impetus for these depositors to monitor the liquidity positions of their bank. Banks have a tendency to partake in riskier lending, and less prudent asset management (Clifford Thies and Daniel Gerlowski (1989) provide historical evidence to this end, while Bert Ely (1999) looks at the broader theoretical issues at stake with mandated deposit insurance plans). The proverbial can is kicked down the road an additional time as the moral hazard of banking insurance is solved through a regulatory agency, usually the Treasury or central bank.<sup>8</sup>

One important body of literature addresses these issues and allows for the banking system to endogenously create solutions to them. The "fractional-reserve free banking" literature sees a fractional-reserve banking system evolving with no specific state-sponsored lender of last resort or supervising agency (Selgin 1988; White 1992; Selgin and White 1996). The fractional-reserve banking system is self-regulating and efficient (O'Driscoll and Hoskins 2006). Banks alter their reserve base as per changes in the demand to hold money by depositors (a greater demand to hold money implies fewer redemption requests, increasing the portion of reserves being "unused" and available to be lent out). Banks issue money substitutes, or claims to their reserves, with depositors and other banks monitoring their stability. Should a bank run occur, solutions come in two forms. First, since banks can issue money substitutes, borrowing reserves from liquid banks with a promise to pay in the future can satisfy the redemption demands by depositors. Second, legal stipulations can be built into the deposit contract limiting the time and extent of redemptions, as was the case in the 19<sup>th</sup> century Scottish free-banking experiment with "option clauses" (Selgin and White 1997).<sup>9</sup>

Although the fractional-reserve free banking literature provides a plausible explanation for a self-stabilizing banking system built upon fractional reserves, doubts remain. Charles Goodhart (1988) gives an historical account of the emergence of central banking as a response to profit maximizing free banks operating with fractional reserves and seeing a profit opportunity through credit expansion that could only be maintained through a coordinating agency – the central bank. Bagus and Howden (2012a) provide theoretical and historical evidence that free banking systems

More recently the IMF has assessed the moral hazard aspects of deposit insurance, especially in the role of institutionalized risk taking in explicitly defined and guaranteed plans (McCoy 2007).

Deposit insurance plans are often preferred to the suspension of convertibility, though this insurance comes at a cost of its own through the distorted incentive structure altering depositor behavior, and the creation of moral hazard increasing bank risk and potential taxpayer liability (Bhattacharya *et al.* 1998).

evolved into their more common centralized counterparts of today due to the instabilities that they bred through credit expansion beyond what their deposit base could service. The resultant liquidity-constrained economic contractions incentivized both bankers and depositors to seek out solutions to halt deposit suspensions, typically in the form of a liquidity-guaranteeing central bank. As the fractional-reserve free banking system is only stable as long as it remains outside of the perverse incentives of the central banking led regime, the incentive to evolve into such a system brings its stability into question.

While the economic debate on fractional reserves has been vivid revived recently, the legal debate is also advancing the discussion to new horizons. Most prevalent among these legal issues is the question of whether there are distinctive features for deposits and loans that imply different legal obligations for these institutions. Chief among these is the availability of a deposit that forms the legal obligation for a depository to abide by.

#### How Available Must Deposits Be?

The question of how available *must* a deposit be is not as normative as one may suppose. By applying objective legal theory to the question, we arrive at an answer that is central to the fractional reserve/100 percent reserve banking debate.<sup>10</sup>

To answer the question one must first assess the very reason why an individual makes a deposit. The demand to hold money – held via cash or bank demand deposit accounts – fundamentally arises from our uncertainty as to future expenditures. Unaware of when, why, where or what his future expenditures will be, an individual saves a portion of his savings as money to mitigate this future uncertainty (Ludwig von Mises 1949: 249). Indeed, money savings become the means individuals use to mitigate the most primal of their needs, the desire to reduce uncertainty (Mises 1949: 14).

1 (

The interested reader may consult Jesús Huerta de Soto (2006: chap. 1), Philipp Bagus and David Howden (2009), or Bagus *et al.* (forthcoming) for a comprehensive overview of the objective legal principles in question.

Note that in modern monetary economics, the demand to hold cash balances comes (primarily) from two factors – income and the interest rate on interest-bearing assets. Yet these factors are only consequences or constraints on the demand to hold cash balances to mitigate uncertainty (Mises 1949: 404). The interest offered on "safe" interest bearing bonds does not condition our decision to hold a certain quantity of money in our cash balances. It is our demand to hold a cash balance to mitigate future uncertainty that determines what interest rate

Many individuals desiring to hold large cash balances consider it neither safe nor convenient to hold the sum in cash. Banks originally developed as warehouses to hold deposited money until the time arose when a depositor demanded to use his deposit. The demand deposit formed, the essential feature of which was to ensure that the deposited sum would be available at some future unknown time. From the subjective point of view, the depositor increases the future availability of his money by depositing it. He makes the deposit because he regards the bank as a safer and more convenient place for his money than an alternative place (under his mattress, for example). A demand deposit increases the subjectively perceived availability of the deposit. If the aim is to mitigate uncertainty of the future, the safekeeping of the deposit becomes the central means to accomplish this goal.

One objection that arises at this point pertains to whether an individual desires his deposited sum to be fully available or whether he is potentially willing to sacrifice some of this availability for a reduction in costs or availability (i.e., by making a time deposit, or more correctly stated, a loan). We may appreciate at this juncture that uncertainty cannot be reduced through taking on additional uncertainty. The individual has made a deposit to "insure" against an unknown future expenditure. Making the deposit less than certain is not an option to the depositor – it annuls the original goal sought. 12

Another objection that arises pertains to what differentiates a deposit from a loan. While deposits must be fully available on demand, some loans can closely approximate this availability if their maturity is short enough. Barnett and Block (2011: 230) ask, for example:

[W]hat is the relevant time period that separates a loan from a deposit? For example, A wishes to establish an account with B in which A turns money over to B with the expectation that B will later on return it to A.

these bonds will bear (Murray N. Rothbard 1962: 787-89).

This becomes clearer if we ask the simple question as to why an individual would choose a demand deposit over a time deposit, or investing in a highly liquid bond. If the individual was not concerned with full availability than the latter options would be suitable substitutes for the former. The fact that individuals utilize demand deposit accounts suggests that they do find the options distinct. Likewise the objection that if a depositor was concerned with safekeeping he would make use of a safety deposit box rather than a demand deposit in the modern banking system is not sound. For only if the former were seen as a good substitute for the latter would this reasoning be correct. The fact that a safety deposit box cannot offer the availability of a demand deposit and is more costly (economies of scale apply when deposits are held in big vaults) makes them poor substitutes for each other (Bagus *et al.* forthcoming).

If the term of the contract requires that A, upon making a demand for the return of his funds, may be required to wait before they are returned, does this render the contract a time deposit? Suppose the waiting period to be 1 seconds? [sic.] 5 seconds? 10 seconds? What is the maximum period of contractually allowed delay between demand and return that still qualifies the relation as a deposit and not a loan?

The fact that as the maturity of a loan continually shortens it increasingly approximates a deposit does not make it a deposit. Each contract has its own characteristics. The most important characteristic for the task at hand is the contract's maturity. Loans must have some, at least implicit, maximum maturity before which it must be repaid (Huerta de Soto 2009: 1-6). A "loan" without a maturity, one which is never to be repaid (i.e., a maturity of infinity), is a gift. A "loan" that is due (or potentially due) the instant that it is made cannot be considered a loan by any use of the word. It is equivalent to a demand deposit and should be considered as such. A loan allows the borrower the use of the loaned object over its duration – a loan that is continually on demand can never be used as the lender could at any point in time ask for its return – the borrower would have to keep the object on hand to satisfy this redemption demand. Loans that may be called "on demand" are what we know and identify today as deposits. 13

One final objection must be addressed before moving on. Money is fungible. A deposit does not have to be repaid in the same monetary units, but rather must only be settled with its tantumdem – an equivalent quality and quantity of money units. Does it not follow that a borrower of a deposit is at liberty to make use of the deposit to make loans, investments, or otherwise purchase assets, provided that he can unwind these positions and use the cash proceeds to settle the original deposit? This objection too misses a key point, and takes us full circle back to our original argument.14

<sup>13</sup> The problem of the current (and long-running) fashion of calling short-term loans "time deposits" becomes evident in light of the contractual differences between deposits and loans. Eliminating such confusing terminology would do much to reduce error on the theoretical side by economists (Mises 1949: 403). Likewise, eliminating such terminology would do much to erase the practical ambiguities plaguing the current banking system (Bagus and Howden 2009: 401fn8).

We refrain here from commenting on whether such a transaction would really honor the original tantundem. While it is clear that it is possible that such a transaction would potentially result in the same quantity of monetary units being returned to the depositor, it is less clear if the monetary units will be of the same quality. In making a loan -against a deposit, the core practice of the fractional-reserve banking system, the value of each individual deposited monetary unit is diminished. In other words, while the quantity of deposited notes can be, in most cases, easily returned to the depositor, their individual quality may be purposefully reduced in quality by the

An individual holds a cash balance, or makes a deposit in a banking institution, because he is uncertain of his future expenditures. The original goal was to keep his savings warehoused to be as continually and fully available as possible. Only in this way would his uncertainty concerning future expenditures be mitigated –the assurance that a stock of money was available at any time would guard against the unforeseeable events of the future.

The problem that arises for the depository is that it knows neither the time nor the place that the depositor will claim his deposit. Indeed, the depositor himself does not know these valuable pieces of information. Lacking this knowledge the depository cannot make use of the deposit under the pretense that it will be able to honor the deposit by unwinding an offsetting financial position in the future when a redemption demand is placed. Recent events over the past three years (and indeed over the whole recorded history of the fractional reserve banking system) have retold the unfortunate consequences of assuming that the redemption demands can be accurately forecast in advance.

In both fractional reserve scenarios – whether free or centralized – the root problem that emerges is how illiquid assets can honor a deposit base that is redeemable on demand. Recourse is often taken in an estimate of the average redemption demands placed on the bank, or the length of time the deposits are entrusted with the bank. Yet the depositor himself knows not these things (which explains the original impetus for placing his money in a demand deposit), and this precludes the possibility of the depository forecasting such redemption demands. In addition, circumstances exogenous to the banking system alter a depositors' level of perceived uncertainty – wars and natural disasters spring to mind – and the banking system itself can change its depositors' demand to hold money endogenously (Bagus and Howden 2011). By collateralizing loans with deposits, banking institutions affect the interest rate offered on such loans, hence altering an individual's demand to hold a cash balance. To forecast redemption demands accurately, banks would have to foresee not only those effects they have no control of and which are exogenous to them, but also those effects that they have control of and are endogenously created by them <sup>15</sup>

\_\_\_\_

depository. Rothbard (1962: 765) discusses the differences in social benefit between increasing the supply of consumers' goods as opposed to increasing the supply of money.

Even if the bank could forecast redemption demands accurately, the appropriation and use of the money would represent a violation of the safekeeping obligation. An analogous case arises if your friend entrusts you to watch their car to keep it safe while they go on vacation. If you make use of the car while your friend is away, even

Fully backing a deposit is one way that the bank can eliminate all of these aforementioned problems. Unable to forecast redemption demands in advance accurately, banks have difficulty in estimating what level of reserves is appropriate. Bank runs can be solved through regulatory actions – deposit insurance, typically – but at the cost of skewing incentives and enticing banks to take on riskier portfolios. Banks can effectively monitor themselves under a free-banking regime, though the ability of this regime to *not* evolve into a centralized system (complete with its own stability issues, as recent history attests) questions whether this is an effective long-term solution.

One solution is found in altering the nature of the demand deposit contract. If bank stability is threatened by an inability to meet redemption requests on demand, stability can be promoted by eliminating the "on demand" portion. Unfortunately, such a reassignment of contractual rights would fundamentally alter the reason that the contract was entered into originally. Depositors require a cash balance to mitigate their uncertainty concerning the future. Demand deposits are how depositors economize on their cash holdings while simultaneously promoting the security and availability of their savings. In this way, deposits must be available on demand in order to satisfy the very reason that the depositor formed the contract.

#### How Available Can Deposits Be?

If deposits must be fully and continually available on demand in the legal sense, we must assess whether there are any operative constraints on this requirement. It is true that, at least in the modern banking system, there is almost always a time lag between when a deposit is requested, and when the bank can physically honor its obligation. This lag arises for three reasons.

First, identity verification must confirm that the individual requesting a deposit is the true deposit holder. As a deposit exists to provide safe storage, the deposit holder must at all times succumb to some time-consuming security measure to ensure the identities of the requestor and deposit holder match.

if they are unaware of your use of the car (and assuming that the car is not damaged), a break of fiduciary duty has occurred. In both cases an unethical use of goods transpires.

Second, there will necessarily be some amount of time between when identity is confirmed and when the requestor will receive the deposit in question (or, in the case of electronic transactions, the use of the deposit in question). Note that this constraint arises from the same source as in the above case of identification. As the bank's role is to safeguard the deposited sum, some amount of time will almost certainly be necessary to move the deposit (whether physically in kind, or electronically in title) from a safe location and into the depositor's possession.

Third, there may be institutional restrictions on deposit availability, such as business hours. A bank may be (and often is) closed during night and weekends. The fact that depositors still use these deposit accounts, constrained as they are by business hours, signifies that the perceived availability of the deposit is unhampered. The depositor would not have made the deposit if this institutional restriction was relevant to him and impaired his perception of availability.

Note that these three time lags represent physical constraints on the transaction. They are problems that arise solely in practice, and pose no theoretical difficulty to distinguishing a deposit from a loan. Indeed, the banking system has continually strove to increase the physical availability of its deposits whether via tokens, checks, electronic transfers, and, more recently, debit transactions.

The necessity of this temporal constraint in no way confuses the issue as to whether a deposit is actually a loan given that the bank cannot physically return it "on demand." These waiting periods of are not negations of the deposit contract's existence – a feature that would automatically nullify the obligations inherent in it and instead impose the more lenient obligations that the loan contract requires. There is nothing deficient with the contracts at hand – their obligations are, after all, easily definable in theory.

Still, what of the practical problem of the gray area that exists where a deposit approximates a loan due to the physical constraints imposed on us by our current redemption technology? In response to this ambiguity, it is necessary to determine which of the two contracts is operative. We know that every money unit must necessarily be owned by someone in the economy at every moment in time (Mises 1949: 402; Rothbard 1962: 760). If contracts are

vague in delineating whether the money was properly deposited (and hence the use remains with the depositor) or lent (in which case the use transfers to the borrower), what is necessary is not to claim all monetary contracts as loans. What is instead necessary is a system of adjudication to decide what the operative contract is.

For economic concepts that prove vague in practice, a properly functioning legal system becomes necessary to decide which end of the conceptual spectrum the particular concept lays (Barnett and Block 2008, Bagus and Howden 2012b: 296). In the case of deposit contracts that approximate loan contracts due to physical constraints on their redemption availability, the legal system must decide if the contract more closely resembles a deposit or a loan. As in most legal cases, the key deciding factor becomes the intent of the involved parties.

For "loans" so short that the legal system assesses them as deposits (the theoretical very-short-term loans of one minute, or even one second discussed in Barnett and Block (2011)), the purpose of the "loan" may be viewed as the safekeeping of the deposit. Objectors may state that by offering these very-short-term loans, banks will be able to skirt the legal requirements imposed by the deposit contract by offering something very nearly like one, yet that entails the less restrictive obligations of a loan. When posed with such a motive, a well-functioning legal system must assess the intent behind the action. The assessment of intent once again must return to the original impetus that drove the depositor to give his money to the bank in the first place. The uncertainty surrounding future expenditures creates the need for the individual to ensure a safe deposit of money to shield him from unforeseen events. Banks cannot evade the simple fact that an integral part of this end is a safely stored deposit, readily available – fully and continually – for the depositor.

While a legal system capable of foreseeing in advance all problematic areas of the deposit/loan contract continuum is likely not possible, it is also not without recourse. Evolutionary legal systems, such as those laid forth in Bruno Leoni (1961) or Friedrich A. Hayek (1973), are able to offer continual conflict resolution of this continuum problem. Terms on "loans" so short that they are deemed equivalent to deposits will be treated as such before the law. <sup>16</sup>

<sup>1/</sup> 

Interestingly, the deposit/loan continuum is asymmetric. While it is easy to see how a continual shortening of the maturity of a loan causes it to approximate a deposit, a deposit can never commence to approximate a loan. Lacking any maturity – or, being continually redeemable on demand – removes any possibility that a deposit could ever be misconstrued in this regard for a loan.

#### Conclusion

By analyzing the reason for the deposit of cash, we have answered an essential question: how available must a deposit be? Unable to forecast all of his future expenditure requirements, an individual mitigates this uncertain aspect by keeping a store of money – the liquid asset par excellence – at the ready for any contingencies. A banking system offering deposits provides individuals with one way to mitigate this future uncertainty. The quick answer to the question of "how available must a deposit be", is: *fully and continually*.

The practical answer is a little more complicated. How available *can* a deposit be? Physical constraints make it unlikely that a bank can offer a deposit that is both fully and continually available for a depositor to use. The time required for account holder identification, deposit verification, or to move a deposit from a safe location and into the depositor's possession implies that a deposit *cannot* be physically available as what we would consider "on demand."

This simple fact does not negate the contractual obligations of the depository. Instead of concluding that since a deposit cannot be fully available – i.e., cannot be physically available in the theoretical sense we ascribe to the term "deposit" – that its contractual obligation of being safely held by a depository is nullified, we must instead assess its original purpose and intent. Depositories are not at liberty to make use of a deposit during the period when they are physically constrained from returning them to a depositor "on demand" (i.e., banks may not change the contractual obligations of a deposit to those of a loan due to physical constraints). The original deposit was made for a strict reason – to have a safe quantity of money available for unforeseen future contingencies. A bank, in accepting this deposit contract, is bound to honor to the best of its ability the obligation of full availability, while strictly honoring the safekeeping portion of the obligation.

If a depositor cannot be assured of what his future expenditures will be, he can at least take solace in knowing that he has a sum of money safely stored to mitigate this uncertainty. We conclude that availability is a valid and decisive feature differentiating deposits and loans. The deposit contract – the safekeeping with full and continual

availability of something (money as the case may be) – is the means used to achieve the goal of mitigating felt uncertainty.

#### References

Bagehot, Walter. 1873. Lombard Street: A Description of the Money Market. London: H.S. King.

Bagus, Philipp, and David Howden. 2012a. Still Unanswered Quibbles with Fractional Reserve Free Banking. *Review of Austrian Economics* 25(2): 159-71.

Bagus, Philipp, and David Howden. 2012b. The Continuing Continuum Problem of Deposits and Loans. *Journal of Business Ethics* 106(3): 295-300.

Bagus, Philipp, and David Howden. 2011. Fractional Reserve Free Banking: Some Quibbles. *The Quarterly Journal of Austrian Economics* 13(4): 29-55.

Bagus, Philipp, and David Howden. 2009. The Legitimacy of Loan Maturity Mismatching: A Risky, but not Fraudulent, Undertaking. *Journal of Business Ethics* 90(3): 399-406.

Bagus, Philipp, David Howden and Walter E. Block. forthcoming. Deposits, Loans and Banking: Clarifying the Debate. *American Journal of Economics and Sociology*.

Barnett, William II and Walter Block. 2005. In defense of fiduciary media— a comment; or, what's wrong with "clown" or play money? *Quarterly Journal of Austrian Economics* 8(2): 55-69.

Barnett, William, and Walter E. Block. 2011, Rejoinder to Bagus and Howden on Borrowing Short and Lending Long. *The Journal of Business Ethics* 100(2): 229-38.

Barnett, William, and Walter E. Block. 2008. Continuums. Etica & Politica 10(1): 151-66.

Bhattacharya, Sudipto, Arnoud W. A. Boot, and Anjan V. Thakor. 1998. The Economics of Bank Regulation. *Journal of Money, Credit and Banking* 30(4): 745-70.

Benston, George J., and George G. Kaufman. 1996. The Appropriate Role of Bank Regulation. *The Economic Journal* 106(436): 688-97.

Benston, George J., and Clifford W. Smith. 1976. A Transactions Cost Approach to the Theory of Financial Intermediation. *The Journal of Finance*, 31(2), Papers and Proceedings of the Thirty-Fourth Annual Meeting of the American Finance Association Dallas, Texas December 28-30, 1975: 215-31.

Diamond, Douglas W. 1984. Financial Intermediation and Delegated Monitoring. *Review of Economic Studies* 51(3): 393-414.

Diamond, Douglas W., and Dybvig P. H. 1983. Bank Runs, Deposit Insurance, and Liquidity. *Journal of Political Economy* 91(3): 401-19.

Dowd, Kevin. 1989. The State and the Monetary System. New York: Saint Martin's Press.

Eisenbeis, Robert A., and Larry D. Wall. 2002. Reforming Deposit Insurance and FDICIA. Federal Reserve Bank of Atlanta Economic Review, first quarter: 1-16.

Ely, Bert. 1999. Regulatory Moral Hazard: The Real Moral Hazard in Federal Deposit Insurance. The Independent

Review 4(2): 241-54.

Glasner, David. 1989. Free Banking and Monetary Reform. Cambridge: Cambridge University Press.

Goodhart, C. A. E. 1988. The Evolution of Central Banks. Cambridge, MA: The MIT Press.

Hayek, Friedrich A. 1973. Law, Legislation and Liberty: Volume 1- Rules and Order. Chicago: University of Chicago Press.

Hoppe, Hans-Hermann. 1994. How is Fiat Money Possible? or, The Devolution of Money and Credit. *Review of Austrian Economics* 7(2): 49-74.

Hoppe, Hans-Hermann, with Guido Hülsmann and Walter Block. 1998. Against Fiduciary Media. *Quarterly Journal of Austrian Economics* 1(1): 19-50.

Hülsmann, Jörg Guido. 1996. Free Banking and the Free Bankers. Review of Austrian Economics 9(1): 3-53.

Hülsmann, Jörg Guido. 2008. The Ethics of Money Production. Auburn, AL.: Ludwig von Mises Institute.

Huerta de Soto, Jesús. 2006. Money, Bank Credit and Economic Cycles. Auburn, AL: Ludwig von Mises Institute.

Kaufman, George G. 1996. Bank Failures, Systemic Risk, and Bank Regulation. Cato Journal 16(1).

Kaufman, George G. 1999. Do Lender of Last Resort Operations Require Bank Regulation? Presented at the conference "Is Bank Regulation Necessary?", *American Enterprise Institution*, Washington D.C., Oct. 27.

Kotlikoff, Laurence J. 2010. *Jimmy Stewart is Dead: Ending the World's Ongoing Financial Plague with Limited Purpose Banking*. New York: Wiley.

Leoni, Bruno. 1961. Freedom and the Law. Princeton, N.J.: D. Van Nostrand Company.

McCoy, Patricia A. 2007. The Moral Hazard Implications of Deposit Insurance: Theory and Evidence. Presented at the *Seminar on Current Developments in Monetary and Financial Law*, Washington D.C., October 23-27, 2006.

Mises, Ludwig von. [1949] 1998. Human Action: A Treatise on Economics. Auburn, AL: Ludwig von Mises Institute.

O'Driscoll, Gerald P. and Lee Hoskins. 2006. The Case for Market-Based Regulation. Cato Journal 26(3):469-487.

O'Driscoll, Gerald P. 2009. Money and the Present Crisis. Cato Journal 29(1): 167-86.

O'Driscoll, Gerald P. 2010. "Jimmy Stewart is dead: Ending the world's ongoing financial plague with limited purpose banking." By Laurence J. Kotlikoff. *Cato Journal* 30 (3): 541-46.

Rothbard, Murray N. [1962] 2001. Man, Economy, and State. Auburn, AL: Ludwig von Mises Institute.

Rozeff, Michael S. 2010. Rothbard on Fractional Reserve Banking: A Critique. *The Independent Review* 14(4): 497-512.

Selgin, George. 1988. The Theory of Free Banking: Money Supply under Competitive Note Issue. New Jersey: Rowman & Littlefield.

Selgin, George A. and Lawrence H. White. 1996. In Defense of Fiduciary Media—or, We are Not Devo(lutionists),

We are Misesians! *Review of Austrian Economics* 9(2): 83–107.

Selgin, George A. and Lawrence H. White. 1997. The Option Clause in Scottish Banking. *Journal of Money, Banking and Credit* 29(2): 270-73.

Smith, Adam. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: W. Strahan and T. Cadhell in the Strand.

Thies, Clifford F., and Daniel A. Gerlowski. 1989. Deposit Insurance: A History of Failure. Cato Journal 8(3): 677-93

White, Lawrence H. 1984. *Free Banking in Britain: Theory, Experience and Debate, 1800–1845*. London and New York: Cambridge University Press.

White, Lawrence. H. 1989. *Competition and Currency: Essays on Free Banking and Money*. New York: New York University Press.

Yeager, Leland B. 1997. *The Fluttering Veil: Essays on Monetary Disequilibrium*, (ed.) George Selgin. Indianapolis: Liberty Fund.

Yeager, Leland B. 2010. Bank reserves: A dispute over Words and Classification. *Review of Austrian Economics* 23 (2): 183-191.