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ARTICLES

Essentialist Views on Banking Contracts

Philipp Bagus[1][a], David Howden[2][b]

[1] Universidad Rey Juan Carlos, [2] Business and Economics, Saint Louis University - Madrid Campus

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Opprobrium directed at banks and bankers during economic crises stems from ethical conflicts caused by the primary product of the banking industry: the fractional-reserve demand deposit. There exist two schools of thought on the legality and the ethical nature of this contract. The "essentialist" school views this contract as inherently contradictory due to the conflicting attributes fundamental to its construct. The "nominalist" school views this contract as *sui generis*—a financial innovation that has passed the market test—holding that while past financial and legal institutions may have been at odds with such a contract, the modern economy is different. In this article we show that the essentialist view on banking contracts is not only defensible but necessary, given the unique attributes of money and perfect money substitutes. This viewpoint allows the resolution of the legal and economic difficulties while improving the ethical standing of banks: it clarifies ownership rights in deposits, and mitigates the risk of bank runs by requiring full reserves.

Debate over the legality of banking contracts in general, and the fractional-reserve demand deposit (FRDD) in particular, centers on the concepts of deposits and loans. Along with the practice of maturity transformation, the FRDD is a unique feature of modern banks that distinguishes them from other financial institutions. In the FRDD, an individual places a share of his savings in a deposit account. The bank retains a portion (fraction) and uses the remainder to fund an investment (typically by making a loan). The legal agreement binding the parties allows the depositor access to his funds on demand; however, this is a promise which the bank cannot honor at all times, since it does not hold all of the deposited funds in reserve. Circumstances when the bank lacks liquidity to meet redemption demands were historically met through the option clause; in more modern times they are met through the central bank's discount window or deposit insurance. Without these

a Philipp Bagus (philipp.bagus@urjc.es) is professor of economics at Universidad Rey Juan Carlos, Madrid, Spain.

b David Howden (david.howden@slu.edu) is professor of economics at Saint Louis University—Madrid Campus, Spain.

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forms of external support, the contract cannot be fulfilled continuously. Two schools of thought exist as to how legal, economically beneficial, and ethical such an inherently unstable banking contract is.

One school claims that there is a binary categorization of financial transactions—a good can either be deposited or be loaned—and that contractual hybrids are fraught with ethical (Bagus and Howden 2009, 2013; Bagus, Gabriel, and Howden 2016, 2018), legal (Bagus, Howden, and Block 2013), and logical (Bagus, Howden, and Gabriel 2015) difficulties.[1] Under this chain of reasoning, any funds contractually demandable by the bank's client must be held in the form of a deposit, which obliges the bank to hold a full reserve to fulfill redemption requests. Alternatively, the bank's client could choose to lend his funds to the bank. As the client renounces the use of his funds for the duration of the loan, the bank must then abide only by the legal requirements that the loan entails. Importantly, such a contract allows the bank to use the lent funds for its own purposes. Enforcing the distinction between deposit and loan facilities at a bank would make the FRDD a relic of the past. Although deposits would not be lent out, lending operations would continue because they would be funded through genuine loans from bank clients.

The other school of thought on the topic claims that such a distinction between deposits and loans employs a "flawed style of argument" (Yeager 2010, 183). While the banking industry of some bygone era may have thought of deposits and loans as distinct transactions, the modern banking system blends features of both contracts to create the financial innovation known as the FRDD. This school looks at this evolved form of banking contract as proof of its beneficial role in the financial system. Under this chain of reasoning, attempts to delegitimize hybrid loan-deposit contracts such as the FRDD are misguided, as they focus on outdated financial contracts (Evans 2014, 2015; Selgin and White 1994; Selgin 1996).[2]

On one level, the differences between these groups distill down to the former taking an essentialist view of banking contracts and the latter a nominalist view. The essentialist view holds that deposits and loans have fixed, unchanging characteristics that cannot be blended without legal, economic, and ethical contradiction. The nominalist view argues that contract types evolve with practice and need not conform to historical definitions.

1 Economic difficulties of blending these contracts have also been discussed (Huerta de Soto [1998] 2006) but are not relevant to the present article.

2 A third "school" treats modern banking contracts as an outgrowth of "trust" arrangements (Kim 2011). This is a subsidiary issue with little relevance for this article.

Taking an essentialist view entails identifying a set of attributes necessary for a specific entity to exist. In the context of banking, essentialism refers to the view that contractual types—such as "deposit" and "loan"—are not arbitrary legal constructs but instead express distinct, nonsubstitutable economic and moral realities. A deposit implies full and continuous availability of the funds to the depositor, while a loan implies a temporary transfer of control and risk to the borrower. Essentialists argue that FRDDs conflate these categories, attempting to promise full availability while simultaneously lending out the same funds. This internal contradiction, they claim, renders such contracts logically incoherent and ethically problematic. Those who consider the FRDD economically and legally problematic regard the essential criteria of deposit and loan contracts as immutable foundations upon which all legitimate financial arrangements must be based.

In contrast, those who see the historical evolution of banking contracts as sufficient evidence of their legitimacy deny that such universal criteria can be identified. For them, the existence of a financial practice that violates classical definitions merely indicates that those definitions are outdated or conceptually inadequate. In this sense, nominalists treat the FRDD as a sui generis contract needing no reference to existing legal, economic, or ethical frameworks. From the nominalist perspective, contractual categories such as "deposit" and "loan" are not fixed by inherent or essential features but are defined by convention and institutional practice. As banking systems evolved, so too did the nature of deposit agreements, with fractional-reserve arrangements becoming common and widely accepted. According to this view, the legal and economic meanings of such contracts are determined not by abstract philosophical consistency but by what courts, banks, and clients mutually understand and enforce. What matters is not whether a contract fits into classical categories but whether it functions effectively within a given institutional and legal framework. For nominalists, then, FRDDs are valid contracts because they have proven workable and are widely accepted in practice, regardless of whether they blur the line between traditional deposits and loans.

The essentialists reject this pragmatic fluidity as conceptually dangerous, holding that allowing the evolution of legal categories to override essential distinctions leads to internal contradictions. If a contract can promise both safekeeping and lending, or both full availability and transfer of control, then its meaning becomes indeterminate. For essentialists, this is not legal innovation but confusion—a blurring of opposites that ultimately undermines legal clarity, moral trust, and the ability of the banking system to promote sound economic calculation.

The purpose of this article is to address the more general claim that definitions built upon a foundation of necessary attributes are an inapplicable starting point for analyzing the legitimacy of an action (i.e., the nominalist

viewpoint). We illustrate problems with this general approach with the specific case of the FRDD contract—an important example, as it is one of the chief characteristics of the modern banking system. In particular, we demonstrate that the terms used to describe a concept are malleable descriptors of an objective underlying reality. This underlying reality is time-invariant, notwithstanding the shifting linguistic conventions used to describe it. As a result, what is being debated is not whether one set of nomenclature is better suited to the task than another (as in Evans 2015, which claims that contractual ambiguities in banking can be improved on with more transparent terminology).[3] The focus must instead be on the concepts themselves—in this case, deposits and loans—to understand what legal, economic, and ethical criteria are necessary to define and structure these financial products.

What Is Money?

Of money's primary functions, that of medium of exchange is the one that economists give the most focus to. The standard story of money's evolution follows Menger (1892). The double coincidence of wants problem causes individuals to seek an indirect medium of exchange to economize on the bid-ask spread of prices, eventually settling on (usually) one good, which becomes money.

However, it is money's ability to act as a store of value that is a vital determinant of its demand. While in equilibrium all transactions occur simultaneously, in reality income and expenditure are asynchronous. Since future expenses are uncertain in terms of both their magnitude and timing, the individual demands to hold some of his income as money to meet this uncertain future need (Howden 2015b, 2023). This demand cannot be met by holding a financial asset, such as a bond, as the timing of the future expense is not known. Holding a bond will only allow the individual to access funding after some waiting period (the bond's maturity) or by selling the bond at an uncertain price. Holding an equity will also not allow the individual to hedge this uncertain future expenditure, as the future value of the equity is unknown until the moment of sale. Instead a good is demanded that sells at par value on demand, so that the individual can prepare for uncertain expenses that could arise at any future time (Mises [1949] 1998, 249).

The good that emerges as money is the most universally demanded, since it will be required by half of all people participating in transactions (the various other demanded goods form the other half). Because it is the most highly demanded good, money will also become the most liquid one. It offers the

3 Bagus, Howden, and Gabriel (2015, 2017) provide arguments as to why rewriting banking contracts does not provide an adequate solution to these difficulties.

holder the greatest certainty that it will be accepted in exchange in the future, and that this acceptance will be at a value relatively close to its present value. This fact enables the bid-ask spread for transactions of increasing quantities of goods to widen only very slowly when defined in terms of money.

In other words, money tends to be at any time and place the most saleable good and allows the owner to separate the timing of the sale of his produced goods from the moment when these produced goods are demanded. As a result money is able to transfer purchasing power interpersonally and intertemporally better than all other goods. This ability to transfer purchasing power is the core reason money is demanded.

The medium of exchange compensates individuals when exchanges of unequal monetary value are agreed to or, more importantly, when we are unsure of our future pecuniary obligations.[4] Ludwig von Mises's ([1949] 1998, 244–52) evenly rotating economy demonstrated conclusively that money functioning as a medium of exchange cannot exist alongside perfect foresight.[5] It is our felt uncertainty concerning future pecuniary obligations, both in their timing and in their magnitude, that causes us to hold money to provide insurance against unforeseen contingencies. To the extent that one would not hold on to money unless he expected its purchasing power to be retained in the future, there is no way to untangle the monetary role of the medium of exchange from its role as a store of value—each depends on the other in creating the demand for money. A money that did not act well as a store of value would be as useless to the individual as one which did not function well as a generally accepted medium of exchange. A deficiency in either of these monetary functions would diminish, or possibly eliminate, the demand to hold money.

Fractional-Reserve Demand Deposits qua Money

To the extent that an FRDD is a financial product that redeems on demand and at par value, it serves as a perfect money substitute and is regarded as such by bank customers. Indeed, owing to the type of demand for it, money is the only good that can be represented by a perfect substitute. Money serves to be exchanged for various subjectively valued goods. Any analysis of the FRDD as a perfect money substitute must start with an understanding that the contract must be structured so that the deposit provides the same functions as does

4 Reliance on a centralized clearing agent will not solve this knowledge problem either. Provided that all transactions do not net to zero at the end of each payment period, some exchange medium will be required to reach agreement when the economy is faced with unequal magnitudes of transactions.

5 However, the evenly rotating economy does allow money to exist as a unit of account under conditions of perfect knowledge (Howden 2009).

money in general. Since the two defining characteristics of money are that it sells at par value and on demand, so too must a perfect money substitute such as the FRDD possess these attributes.[6]

While it is trivial to understand that money in a physical form (e.g., currency), sells at par value on demand, a perfect money substitute like a deposit can do so only if any redemption request to convert the deposit to another form of money (e.g., currency) can be accomplished at par value and on demand. One commonly noted deficiency of the FRDD is that it creates the possibility of the bank run, whereby either or both of these criteria are jeopardized. While this problem is apparently solved by deposit insurance, this solution works only for the covered deposits (e.g., deposits of less than $250,000 in the United States), and even insured deposits may be redeemed at less than par value, as happened during the Cypriot bail-in of 2013. Before the advent of deposit insurance, one common method of protecting against the bank run was the use of the option clause. This clause forced depositors to wait for a certain time before redeeming their deposits, which gave the bank additional time to liquidate assets. It also had the effect of forcing the depositor to become a creditor, thus breaking the initial terms of the deposit contract. In both of these cases we see that depositors cannot be sure that the FRDD is redeemable at par value on demand, since the bank does not hold a full reserve to honor redemption requests. Although in most "normal" banking periods (e.g., those not characterized by liquidity crises or bank runs), the deposit does, as a practical matter, redeem at par value and on demand, these two features cannot be assured. To the extent that these features are not preserved, a deposit's role as a perfect money substitute is compromised.

There is an alternative way to look at the nature of the FRDD that does not rely on it being a perfect money substitute. Some view this particular deposit contract as neither a loan nor a deposit but rather as a highly liquid investment with a promise by the issuer to do his best to pay back a certain nominal value. Defined in such terms, the FRDD becomes an aleatory contract where the possibility of getting the nominal value back depends on an uncertain future incident (in other words, on "luck"). The person who transfers the money to a bank gets paid interest for this transfer and receives the option to get his money back, provided the "bank" can do so. Both parties

6 One can think of financial products that are "money-like" (Howden 2015a, 2023). Very short-term loans may redeem at par value but not on demand. Equities can be sold on demand but not at par value. Since uncertainty regarding the timing and magnitude of an expense can only be hedged against with the certainty of knowing how much value you have available (par value) and the certainty of knowing you can always access such value (on demand), a financial product must have these two characteristics to function as money. This is not to say there is no demand for very short-term loans or equities but rather that individuals who demand these products do so for their savings portfolio, which is separate from their money holdings.

are aware of the fact that the bank uses the money, and it is no longer the purpose of the receiver (the bank) to maintain complete availability of the sum.[7]

Although this alternative way of viewing the FRDD contract is appealing, there are several reasons to doubt that the demand for money could be satisfied by an aleatory contract. Alternative financial products that come close to emulating the special properties of demand deposits (e.g., short-term government bonds, money market mutual funds, etc.) are also unable to mitigate the individual's felt uncertainty because their value is dependent on some degree of uncertainty (Bagus, Gabriel, and Howden 2016). The reason these alternative products are unsuitable to this task stems from the motivation behind the purchase of a perfect money substitute. Money is demanded to alleviate felt uncertainty. One cannot solve the problem of uncertainty by holding an asset that introduces additional uncertainty, such as a bond or equity. Since money endows its holder with certainty in terms of its availability and nominal value, it is the only good that can diminish an individual's uncertainty. Given that a demand deposit is a perfect money substitute, it too must provide full availability and predefined nominal value for its holder.

If money were on the same liquidity scale as financial assets, it would only be a matter of preference what quantity of money versus, for example, long- or short-term bonds one demanded to hold in his portfolio. However, money cannot be placed on the extreme end of a spectrum of more and less liquid assets. Holders of money demand an on-demand, par-value asset to ease their uncertainty concerning future expenditures. In contrast, the demand to hold all other financial assets, regardless of their liquidity, stems from a desire to sacrifice purchasing power in the present with the goal of increasing it in the future.

That aleatory contracts cannot substitute for money becomes important when we think of the implications for plan coordination—on both the individual and economy-wide levels—that result from treating money separately from its essential characteristics. Individuals hold money as an uncertainty hedge. This hedge cannot be fulfilled in any way other than with the perfectly liquid asset, one that (incidentally, though not accidentally) serves conjointly as a pricing unit and an exchange medium in the economy (Howden 2015a). An individual looking to contract for a "fractional-reserve demand deposit" would be shouldering further uncertainty—whether because he may not be able to withdraw his funds on demand or because he will receive only an equity share of his deposit if his bank becomes insolvent. Hence he will not be in a position to mitigate his uncertainty the

7 The theoretical possibility of such contracts has been addressed by Bagus and Howden (2016); Bagus, Gabriel, and Howden (2016); Huerta de Soto ([1998] 2006, 42); Espinosa, Alonso-Neira, and Huerta de Soto (2023); Hoppe (1994); and Hülsmann (2000, 2003).

way he would be if he held his savings in the form of currency. Of course, this consideration is moot during times when the fractional-reserve banking system has adequate liquidity. Yet in the event of a banking crisis (or any similar liquidity-constraining event), plan discoordination results when the sum an individual has saved to guard against an unforeseen event becomes unavailable and the safety hedge is compromised: the individual planned on having a par-value, on-demand uncertainty hedge available if or when he needed it, and the crisis demonstrated that the bank did not comply with the necessary steps to assure this contractual outcome.

Recognition of this fact goes far in explaining why depositors direct so much opprobrium at bankers during banking crises but not at investment companies during general investment downturns (Bagus and Howden 2013). The bank has acted in a way that does not accord with the depositor's demands; the bank run (or bail-in) is only the outward sign that something has gone wrong. In particular, the depositor purchased a service by way of the deposit that alleviated his felt uncertainty, which could only otherwise have been accomplished by holding money proper. The bank gave the *appearance* of compliance with the necessary actions to allow the deposit to perform its function, when in fact its holding of only fractional reserves sowed the seeds of the problem exposed later by the bank run or bail-in.

Since fractional-reserve banking represents neither pure loans nor pure deposits, it can at best be represented as an aleatory contract. The uncertainty of such a contract is mitigated today by way of government guarantees such as deposit insurance or a central bank serving as a lender of last resort.[8] Neither of these support mechanisms has proven to be adequate to maintain the demand deposit's on-demand, par-value redemption nature, nor can either logically guarantee full availability of the money to the depositor. (Recent examples where these guarantees failed include the banking systems of Cyprus and Ireland during the eurozone crisis of 2008–11.) To the extent that an aleatory contract cannot substitute perfectly for one's money holdings, one cannot treat the FRDD as a type of aleatory contract without ignoring completely the reason why the deposit is demanded in the first place.

The Essential(ist) Question

As an empirical fact, the FRDD not only exists but is the most widely available financial product. All banks offer this product, and all depositors—whether knowingly or not—make use of this product. Nor is it a recent financial innovation. The FRDD has been a ubiquitous feature of banking since the last major full-reserve bank, the Bank of Amsterdam, started allowing depositors to regularly overdraw their accounts in 1657

8 Bagus and Howden (2010) provides a brief overview of how government interventions via deposit insurance and credit creation have promoted the practice of loan maturity mismatching, of which issuing an FRDD is a subset.

(French 2006, 8), a privilege equivalent to the modern bank issuing fiduciary media. As a result it is necessary to address whether the existence of the FRDD contract is a mistake and whether the attributes assigned to financial contracts, viz. deposits and loans, are erroneous or incomplete.

There are two reasons why the essentialist view on the FRDD could be erroneous. The first concerns whether the motivations for holding a deposit are clearly defined. This is important, as any enforceable contract requires a "meeting of the minds," whereby both parties are in clear agreement with what each party expects to get out of the relationship. When it comes to banking contracts, nominalists argue that money is held only for liquidity (in which case any highly liquid asset will suffice) or that an aleatory contract could in theory leave the depositor with a sufficiently certain payout. We have dealt with both claims previously. It is important to reiterate that (1) money is demanded to reduce felt uncertainty, (2) to the extent that a deposit functions as a perfect money substitute, it too must be demanded to reduce felt uncertainty, and (3) since the FRDD is not perfectly liquid, it cannot satisfy the demand to hold money. Consequently the deposit must be structured formally to meet this demand (so that the depositor and bank can have a "meeting of the minds"). This entails, by legal and economic necessity, that the bank hold a full reserve against its deposit base.

To clarify this necessity, consider the following mental exercise: Imagine that a customer deposits a specific gold coin with a bank for safekeeping, with the understanding that the exact coin—or at least an immediately equivalent amount of gold—is available for withdrawal at any time. This reflects the legal nature of a bailment or deposit: custody is transferred, but ownership and instant availability are retained. However, in a fractional-reserve system, the bank lends out a portion (or all) of the deposited gold, thereby transferring possession from the depositor to a borrower. This act transfers possession and control over the asset to the borrower, as occurs in any loan contract. The essentialist critique emphasizes that it is logically impossible for the same asset to be simultaneously held in trust for the depositor and used by the bank to transfer control to the borrower. These conflicting attributes—retained availability versus transferred control—render the deposit contract internally incoherent.

The second reason why the essentialist view on the FRDD could be erroneous is more serious. It could be that the very interpretation of what a deposit is has been insufficiently elaborated. In this case the attributes used to define a deposit may be incomplete or incorrect.

There are two reasons for the open nature of any empirical statement's interpretation (e.g., can one define conclusively what a deposit is?). The first is the undeniable fact that we may never exhaustively describe a material object or situation—some new attribute may always be added that is, in principle, unforeseen. The second is that something completely unforeseen

may occur which negates any preexisting verification of a statement. These two points "prevent us from verifying conclusively *most* of our empirical statements" (Waismann [1945] 1951, 117; emphasis added). Whether the empirical phenomenon under examination (e.g., the existence of the FRDD) can be defined exhaustively ex ante is more generally a case of the underdetermination problem in science (Duhem [1914] 1954, part 2, chap. 6). Since any statement's truth-value is dependent on ancillary propositions, any disproof of an established theory means that there is at least one error among the relevant propositions. Like Friedrich Waismann, Pierre Duhem supports this claim with examples from the natural sciences, such as whether light will travel faster in water than in air (Duhem [1914] 1954, 187). Although this problem of underdetermination can be relevant for theories employing interconnecting propositions and arguments, the debate over the legality and ethicality of banking contracts is on a different plane. The main issue we address here distills to whether the individual concepts (not theories) can be defined in such a way as to avoid ambiguities, and thus be used as valid inputs for the larger theoretical questions.[9]

Empirical statements concerning natural objects are not necessarily subject to vagueness or ambiguity (e.g., due to language limitations), as most nominalists believe. The color red, for example, can be defined by wavelength, CIEXYZ color space (or any device-independent color space), or any other expression of desired exactitude. Any type of vagueness may be remedied via more exact usage of a language. The red car may be better described as a cherry-red car, for example, or better still by defining the wavelength of the color. Abstract concepts like "the red car" can describe a reality adequately even though certain characteristics of these concepts are not specified. (Referring to a cherry-red car is more precise but not more realistic than referring to a red car.) Thus, one may make a "nonprecisive" abstraction, where certain characteristics are absent from the specification, without affecting the reality being described (Long 2006, 7).

There is a tradeoff between the degree of exactness desired in a definition and the ability to satisfy such exact requirements in order to make use of the definition. This tradeoff does not impair the ability to define a concept perfectly (even an empirical one). However, if a vague empirical concept exists, the relevant question concerns the proper standard by which to reject or accept a similar concept as being its equal.

9 In this article, we are more concerned with the questions pertaining to what economic and legal attributes define the concepts of deposit and loan contracts. This type of question can be answered without delving into the problems of underdetermination. Subsequent analysis of questions that hinge on these contracts—e.g., whether an FRDD breeds economic instability, as in Mises ([1953] 1971, [1949] 1998), Hayek (1935), and Huerta de Soto ([1998] 2006)—is an example of a theory that must face the underdetermination problem to be answered completely.

One solution to defining this standard, favored by nominalists, is to accept that no amount of classification is adequate to define a concept completely. For example, Leland Yeager (2010, 188) doubts that any amount of categorization or labeling can define an objective reality, since both the attributes in question and the final object being defined evolve: "Categories and labeling are not fixed hard and fast by objective reality." This approach leaves only time-variant categories of actions and concepts described by continually outdated words.[10] The indeterminateness of meaning and the futility of subsequent analysis become apparent.

This assumed vagueness when defining objects overlooks some certain attributes that allow precisive verification that would prove, for example, that *A* is *A*. Consider Karl Popper's ([1962] 1968, 119) attempt to verify the statement "Here is a glass of water." Popper asserts that the statement is unverifiable, as the words "glass" and "water" denote physical bodies which exhibit "law-like" behavior but lack a standard of known and finite attributes that are fully defined. However, while there could be an infinite number of criteria by which we may define the concept of "a glass," "water" is governed by a very definite law.[11] Two atoms of hydrogen and one of oxygen bond together to create that substance that we today call "water." There can be no nonverification that any molecule composed of such an atomic structure can be anything other than this life-sustaining substance. We may verify the statement "Here is a glass of water" by verifying the quantity of water with full precision, without fully defining what a glass is. The bifurcation of verifiable and nonverifiable objects does not need to create confusion as to whether individual *elements* of a statement may be verified.

The precise identification of components of a statement is, in large part, the emphasis of Carl Menger's ([1963] 1985) *Investigations into the Method of the Social Sciences with Special Reference to Economics*. Menger (60) sought to reduce phenomena to their most elemental components in order to avoid confusion and misinterpretation of more general statements. Hence, while his definition of a good (52) exists in a general sense, it is the fulfillment of each individual criterion that defines a thing as a good (even if the specific characteristics of each individual component are perceived subjectively). Thus, a total concept can be defined precisely, notwithstanding the subjective perception of the individual components. None of this implies that there are concepts that cannot be defined and verified in some concrete manner. It also does not mean that the value a concept has to the individual cannot

10 One may ask what the exact meaning of Yeager's sentence is, if the words "categories" or "labeling" or "objective reality" do not have a fixed meaning. Compare with Murray Rothbard's (1989) related criticism of the application to economics of the methodological approach of hermeneutics, which also does away with the objective nature of concepts and treats all propositions as subjective and malleable.

11 Likewise, the concept of "glass" can be specified in a way that "a glass" cannot be (this is alluded to by the use of the indefinite article "a" in the sentence). In any case, what matters from a legal and economic point of view is whether someone *perceives* an object to satisfy the requirements for it to be considered "a glass." Compare with Bagus and Howden (2016, 251; 2012, 296).

be subjectively interpreted, nor that we cannot use different terms to express this value. We may see the same physical object or process (e.g., the sun setting), which evokes a myriad of emotions and interpretations describable by any multitude of words. The Englishman may perceive the event and describe it as the "setting of the sun," the Parisian mademoiselle as the "coucher de soleil," and the Teutonic poet as the "Sonnenuntergang." The difference in word choice does not negate the fact that there is an objectively definable event happening that is subject to the rules of physics and logic. The daily descent of the sun beneath the earth's horizon will be the concept represented by the term "sunset" equally well this evening and in the future. After all, "if an assertion is true, it is true forever" (Popper [1945] 1963, 221). Nor does the fact that the same concept—the setting sun—is being described by different people imply that they value or interpret the meaning of the concept in the same way. It *does* mean that there is an underlying objective reality that must be relied on as we express and compare our own subjective interpretations of it. Notably these valuations and interpretations must conform to or stem from a general concept (e.g., you value German cars more than French cars, but this difference can only be meaningful if there is consensus over what it means to be "German" or "French" and what a "car" is).

A corollary to this argument is useful. No quibbling about words can make the concept of a "sunset" disappear or falsify it. Even if in the far future our solar system is destroyed and mankind colonizes another planet orbiting around another sun, the concept retains its meaning. More importantly, no quibbling about words can make a sunset reverse and suddenly come to mean what we previously defined as a sunrise. Indeed, when dealing with terminological controversies, "the words used do not matter; what does matter is what the words are intended to mean" (Mises [1953] 1971, 265).

Before debating whether definitions should be forever shrouded in foggy interpretations, we may do well to heed Lionel Robbins's ([1932] 1984, 104–5) words: "It is characteristic of scientific generalisations that they refer to reality. Whether they are cast in hypothetical or categorical form, they are distinguished from the propositions of pure logic and mathematics by the fact that in some sense their reference is to that which exists, or that which may exist, rather than to purely formal relations. . . . The concern of the economist is the interpretation of reality." There is an objective reality underlying at least some statements. It is the objective underlying reality that we must elaborate in order to further our knowledge, and not the subjective interpretation thereof. Essentialism is founded on the recognition that this immutable reality may be elaborated further to construct theories to explain more complex phenomena.

For the present article, we are faced with one such assertion of fact: banking contracts include the FRDD, which is a hybrid contract combining attributes of deposit and loan contracts. The question that needs to be addressed is whether this is a logically consistent (and thus valid and legally enforceable) contract. For a legal definition to have empirical relevance it must conform to the underlying "essence" of the relationship that defines it. As a straightforward example, no legal contract exists that allows one party to buy a good that the counterparty thinks he is loaning. Such a legal relation is inconsistent with the essence of the concepts "purchase" and "loan." The FRDD differs from this example primarily because it exists (and has for some time), while never in history has a financial contract allowed the simultaneous loan and purchase of a good. Thus, we must analyze the underlying nature of the basic banking contract and, in particular, the meaning of the individual terms necessary for its construction.

Is the Fractional-Reserve Demand Deposit Contract Sui Generis?

The FRDD is a blend of deposit and loan contracts, both of which have their attributes defined elsewhere (Huerta de Soto [1998] 2006; Bagus and Howden 2009, 2013). To wit, loans entail (1) an exchange of present and future goods, (2) the transfer of availability of the loaned item, and (3) remuneration for the renunciation of the present use *and* availability of the item.[12] Deposit contracts differ from loans on these three points: (1) they entail no exchange of present and future goods, (2) they ensure that the complete and continuous availability of the deposited item is retained by the depositor, and (3) no remuneration will be made for the use of the deposited item—in fact, the depositor will *usually* pay for this custody service.[13]

To list briefly the three legal differences between deposits and loans, we find that (1) the purposes of the contracts are distinct, (2) loan contracts require the establishment of a *minimum* and *maximum* determinable period for the calculation of an interest payment,[14] and (3) the obligations of the borrower and the depository are different. Borrowers are obliged only to return the principle (plus additional applicable interest) at the end of the borrowing period. In contrast, a depository must keep a *tantundem*—an item of equal quality and quantity to that deposited for fungible assets, and the same good for nonfungible assets—available on demand at all times; that is, they must hold a 100 percent reserve against money deposits (currency or equivalent, in the case of today's banking system).

12 This payment may be waived out of reasons of friendship, goodwill, etc.

13 Again, a fee which may be waived for a multitude of reasons.

14 Even if not explicitly stated, such terms must be implicit in the contract (Bagus, Gabriel, and Howden 2016; Bagus, Howden, and Gabriel 2015).

Does treating deposit and loan contracts as mutually exclusive unduly pigeonhole present-day bank money into outdated legal relationships, as Yeager (2010) claims? Before taking issue with the specific claim that the very nature of money and banking has changed, we will address the more general question of whether a critique of essentialism can negate the validity of an argument against the FRDD as presented.

We have developed a framework to outline the logical, legal, and economic inconsistency of an existing contract (the FRDD) on a priori grounds. The FRDD exists as a blend of deposit and loan contracts and simultaneously offers terms to the contracting parties that are incompatible with each other. This conclusion was not drawn by observing the attributes of each contract and then selecting the ones most consistent with our case. Rather, we have established that (1) a finite set of exchanges exist, and (2) given one's specific circumstances and preferences, some types of exchanges have an objectively definable purpose. In the case of holding money, we have seen that demand originates from an objective desire to hold an on-demand, par value asset to alleviate felt uncertainty. As a result, certain attributes must define the exchange enacted by the parties contracting the money deposit. First, these attributes must be consistent with those of the irregular deposit contract, since the contract in question is a deposit of a fungible good (and not a loan, gift, sale, etc.). Second, since the depositor is motivated (and can only be motivated) to hold money in the form of a deposit to hedge against felt uncertainty, the bank must ensure that the deposit is available at par value and on demand. If the depositor did not care whether his money was available at par value and on demand, he would exchange his currency for an equity share, a money market mutual fund (or similar financial instrument), or a bond of the appropriate volatility or duration. That he did not do so and instead converted his currency to a deposit signifies that he demands a perfect money substitute.

This view is diametrically opposed to the nominalist view that the contracting parties can define the attributes that their exchange must abide by. This final point—that we cannot choose some of the attributes of our exchanges—may seem strange given that contracts are personalized for many different scenarios (e.g., loans differ by maturity, interest rate, repayment schedule, and any number of other key terms). Note, however, that these features that are personalized for the contracting parties' demands abide by, or are consistent with, the defining characteristics that make a loan a loan (e.g., return of principle, transfer of the use of a good for a finite time, etc.).

The fact that the FRDD contract does exist presents us with two alternatives. On the one hand, the theory we have used to assess its appropriateness as anything other than a theoretical construct may be correct and the institution

unjustifiable (Huerta de Soto [1998] 2006; Bagus and Howden 2009, 2013). Alternatively, the institution may be justified and the theory wrong (Yeager 2010; Rozeff 2010).[15]

For those nominalists who think that the institution negates the theory, Yeager (2010, 186) has provided the most elaborated justification by claiming that "money is as money does." He argues that the conception of money as a piece of property being transferred is outmoded: the validity of the legal arguments concerning appropriate banking contracts can be sustained only if money is thought of as a medium of exchange. Yeager sees the line of demarcation between what money is and what it is not as less certain. This provides impetus for him to put stock in the institution that is, to him, dynamic and (admittedly) ill defined—the banking contract—rather than in the theory that demonstrates the flaws in such an institution.

Such a view is well founded, as legal institutions serve to define and adjudicate claims to properties. However, the property in question—money—which the legal and banking system must work around, has not evolved. To be sure, different types of goods have served in the role of money throughout history, and in the future new goods will surely continue to emerge in this capacity. But what money *is* has remained constant, given the specific economic problem that it serves to alleviate. People face uncertainty. Without knowing exactly when or in what magnitude our future expenses will arise, we require a clearing agent that will settle these as-yet-unknown balances. The only way this can be achieved is through an asset that trades on demand and at par value, since these two attributes define the two forms of uncertainty the individual faces (i.e., when the expenditure will arise and in what magnitude). Any good, like a deposit account, that functions as a perfect money substitute must ensure that these two features are preserved. Certain elements of the banking contract can evolve in various ways—for example, today you can access your money electronically, changing the minimum standard of verification necessary to consider the bank as having fulfilled its fiduciary duty to release depositor funds. These evolutions are positive developments, and the market test can be applied in such circumstances to determine whether the changes should be adopted more broadly. The banking system cannot evolve, however, in ways that compromise the essential characteristics of the deposit contract. Something that is a deposit today must abide by the same criteria as deposits throughout history have and, in the future, will. As such, rather than supporting the creation of the FRDD as a financial innovation,

15 These authors present no alternative criteria for financial contract formation except the general maxim that "any voluntarily agreed upon contract is necessarily valid," a base criterion that is suspect for all types of contracts, not just financial ones (Bagus, Howden, and Block 2013, 639).

we should recognize it as the legal aberration that it is. Doing so would not only set the money deposit back on a standard legal footing with other types of deposits,[16] but also solve the accompanying ethical and economic problems.

Conclusion

The roots of the Mengerian branch of the Marginal Revolution in economics are in looking introspectively at the building blocks of elements, searching for the a priori attributes that define economic objects and relationships, and synthesizing deductive statements from them. Such reasoning rests on an essentialist view of the nature of goods and claims to them. The insights this approach has yielded concerning goods and their economic character are innumerable; the same is true for their legal character.

Contract law is built on a foundation of property rights. Two individuals may not own the same piece of property simultaneously. Examples purporting to demonstrate otherwise (time-shares come to mind) are word games.[17] The unavoidable scarcity of goods results in only one individual using a good at a given time, with laws (particularly contract laws) governing this usage or transfer thereof.

Since the FRDD functions as a perfect money substitute, evaluating it requires identifying the essential characteristics that define money. Money's unique functions appear only in a disequilibrium setting. In particular, the uncertainty of future pecuniary obligations creates a unique role for money to fulfill by providing the best means to store value and fund these unknown events.

Instead of relying on vague definitions of what money is, we can build theories upon the knowledge that some unnamed good is demanded to hedge against uncertain future expenditures.[18] Through convention we call this good "money" (this includes, by extension, demand deposits which serve as perfect money substitutes). If money can be defined objectively (e.g., as the generally accepted medium of exchange or the unique good that sells at par value on demand), then objective legal principles governing its use can be elaborated.

The fact that the concept of a "fractional-reserve demand deposit" is logically impossible and legally unenforceable remains to be addressed. When faced with such a situation, logic generally dictates that simplicity dominates complexity and contradictions must be avoided. Rather than devising an

16 For example, the legal system obliges a full reserve to be held against other fungible deposits, such as oil (Huerta de Soto [1998] 2006, 125, 129) and wheat (Williams 1984).

17 Contracts can be mixed and intertwined, provided that each individual component retains its essential element.

18 Compare this sturdy definition favorably with Yeager (1968, 46), who laments how unfortunate it would be if "the definition of money accordingly had to change from time to time and country to country."

elaborate scheme to explain such contradictory phenomena, we can see that there already exists a contract that best explains this institution—a contract that is dependent on uncertain future events that dictate its obligations (i.e., an aleatory contract).[19] It is a more complex matter (1) whether this contract allows money to perform its particular services and (2) whether the FRDD can serve as a perfect money substitute. We have shown that money exists to allow individuals some degree of autonomy and flexibility regarding future uncertain obligations. What is unclear is why one would introduce a contract contingent on an uncertain event to mitigate this uncertainty. Since individuals face some degree of uncertainty that threatens to disrupt their plan coordination, they demand some quantity of money to hedge against this threat.

Essentialist arguments are not word games aimed at fruitless ends. They seek to define what objective underlying reality exists and the possible (or even desirable) institutions that can coexist with this reality. Laws defining the existence and use of private property allow us to have a freely and smoothly functioning goods market. Extending the logic of such laws to the money market allows the same in banking.

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19 Our current legal setting involves numerous government interventions that make the FRDD contract widespread. Legal tender laws, privileges for banks not to fulfill their safekeeping obligation, and central bank or (implicit) government backing of such a practice distort the outcome. It is important to realize that the existing FRDD contract is not the product of an unhampered market. Its existence must be explained elsewhere, primarily by government interventions into the field of money. These privileges and interventions also explain why there is a lack of full-reserve money deposit contracts available today.

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