Fractional-Reserve Banking and the Double-Title to Property Problem

By

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Author’s Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

This thesis discusses the legitimacy of fractional-reserve banking under the title-transfer theory of contract. Fractional-reserve banking is the practice of banks lending out some of the money that is deposited with them. This can be contrasted to a 100% reserve system in which all deposited funds are held by the bank at all times. The title-transfer theory of contract posits that all contracts are the exchange of title to some piece of property and that all title to a particular piece of property can only be held by one individual at a time. Fractional-reserve banking appears to create a problem for the title-transfer theory of contract since it seems that both the depositor of money and those who borrow money from the bank have title to the money that was originally deposited. This is what is known as the double-title to property problem.

Essentially, this thesis dissolves the double-title to property problem by offering a conceptual understanding of bank deposits as a form of call loan in which bank depositors give up title to money they deposit thus never creating an instance in which two titles to the same piece of property arises in the practice of fractional-reserve banking. This conceptual understanding of bank deposits describes fractional-reserve banking in a way which is ultimately different from how some who oppose fractional-reserve banking have described it. The call loan understanding views banks as debtors and depositors as their creditors who hold debt which is callable at any time. This understanding can be contrasted to the view that banks offers warehouse services that protect deposited money and bank depositors are people who seek to have their money protected and safeguarded by the bank.

This thesis then explores some of the practical implications of conceptualizing bank deposits as call loans. While some have argued that banks must be bound by different rules when it comes to treasury management, bankruptcy, and contract formation, this thesis explores how banks can operate just like any other business that must practice debt management while dealing with uncertainty. This analysis engages with existing criticisms which posit that business practices for fractional-reserve banks must be different from other businesses in order to protect creditors from conditions which critics claim do not appear in other industries. This thesis argues that any such concerns regarding the treatment of creditors by fractional-reserve banks can already be addressed by existing business ethics literature that applies generally to all industries.

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Dedication

To my family
Mom, dad, and Paige

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Introduction

Fractional-reserve banking is the form of banking that is practiced virtually universally in almost all countries. When depositors deposit money at a bank, some of that money is lent out, meaning that not all deposited funds are kept on hand, hence, the "fractional-reserve" moniker. This can be contrasted to a one-hundred-percent reserve banking in which all deposited funds are held at all times by the bank. It is the fractional-reserve form of banking in which banks can act as credit intermediaries from depositors to borrowers and makes up the foundation of our domestic and international monetary system. While this is the way in which almost all banks everywhere operate, the legitimacy or desirability of such a system has become a question of contemporary political importance. For example, in 2018 a referendum in Switzerland asked if banks should be forced to hold all deposits on hand. This proposal was struck down, but it shows that even this well-established and long-time practice is being questioned.

Those interested in the ethics of fractional-reserve banking have criticized its practices as fraudulent on various grounds. One particular brand of criticisms, which are addressed in this thesis, have arisen within a certain conception of property and contract. This theory of property asserts that we come to own resources by either being the first person to use that resource or by voluntarily exchanging for the resource with its previous owner. This theory of property and contract is one way of making more precise the conception of property broadly outlined by Robert Nozick's entitlement theory by creating explicit conceptual understandings of the principle of justice in acquisition and the principle of justice in transfer. Thus, this debate and the particular criticisms of fractional-reserve banking derive from a largely libertarian way of thinking. In fact, most of this debate has been between two schools of thought within libertarian scholarship; the Rothbardians and the Free Bankers. As I will argue here, this particular view of

property is sufficiently similar to our folk-understanding of property and contract that the conclusions drawn in this thesis still have bearing on our current social, corporate, legal, and financial practices.

The particular conceptions of property and contract through which this debate has been framed are the Rothbardian view of property and the title-transfer theory of contract. In the first chapter, the specifics of these conceptions are outlined and explained. From these particular conceptions of property and contract, three criticisms of fractional-reserve banking have been posited by the Rothbardians. The first is that fractional-reserve banking is inherently deceitful as depositors do not know that money that they deposit with banks is being lent out to other borrowers. This empirical question is not addressed by this thesis. The second criticism is that fractional-reserve banking creates a double-title to property in which two people simultaneously own the same piece of property, namely, some piece of money. If this is the case, it is problematic because two people would have the right to use that money for incompatible purposes. For example, one could spend it on an apple, and the other on a laptop. This problem appears to arise within the practice of fractional-reserve banking as the depositor of the money and the one who borrows money from the bank both appear as though they own the money. In the second chapter, this concern is addressed by offering a conception of the bank deposit in which the depositor gives up ownership of money deposited to the bank when they deposit money. The third criticism of fractional-reserve banking is that it is inherently insolvent. Since all depositors could, at any time, ask for money deposited and fractional-reserve banks by their nature necessarily do not have all deposited funds on hand, then it is theoretically possible at any time for banks to become quickly insolvent. However, as I argue in the third chapter, the risks of becoming insolvent that banks face are not operationally or ethically different from risks other

businesses face. Thus, to the extent that we can trust other businesses to operate without risk of insolvency, we can trust banks to operate similarly.

The second chapter of this thesis offers a conceptual account of the bank deposit as a call loan. The call loan is a loan in which the lender lends money to a borrower but has the right to ask for the lent funds back at any time (i.e. the lender has the right to "call" the loan). With this conception of the bank deposit the double-title to property problem never arises. Bank depositors give up title to the money and then banks lend that money out, giving title to borrowers. Viewed in this way, there is no instance in which more than one person has title to the deposited money.

The third chapter explores the practical implications of this view of bank deposits. These are immediate prima facie implications which cannot take into account all of the complexities of banking practices. These practices are fraught with operational and ethical difficulties and will not all be addressed in this thesis. For example, neither the implications of the Federal Deposit Insurance Corporation or the Canadian Deposit Insurance Corporation nor potentially private alternatives to these institutions are considered herein. However, these immediate and prima facie implications are still able to help us navigate and respond to some Rothbardian criticisms of fractional-reserve banking as well as illustrate how fractional-reserve banks can operate in bankruptcy, treasury management, and loan formation.

The question of how fractional-reserve banks might operate legitimately has arisen out of a libertarian way of thinking through debate between the Rothbardians and the Free Bankers. Nonetheless, the conclusions reached in this thesis still offer important implications about our common conceptions of bank deposits and the fractional-reserve practices which follow from them. This conception then offers us a way of addressing particular criticisms of fractional-reserve banking which have arisen from this debate. This thesis does not attempt to offer a

complete picture of how fractional-reserve banking can be ethically practiced. Nonetheless, this thesis provides a conception of fractional-reserve banking which helps elucidate our contemporary fractional-reserve practices and offers practical conclusions from which we can draw on in order to more fully understand the nature of an ethical fractional-reserve banking system.

Chapter 1 – Property, Contract, and Fractional-Reserve Banking

The Rothbardian View of Property & Contracts

In 1988, in an attempt to explicitly define and make clear the differences between capitalism and socialism, Hans-Hermann Hoppe writes, “Capitalism … is a social system based on the explicit recognition of private property and of nonaggressive, contractual exchanges between private property owners.” (1988/2010, 10) Recognizing property rights as the essential characteristic of capitalism, Murray Rothbard in his 1982 chapter, “Property Rights and the Theory of Contracts”, aims explicitly at a theory of contracts which recognizes private property as the ultimate source of the right to make contracts. He writes,

> The right of property implies the right to make contracts about that property: to give it away or to exchange titles of ownership for the property of another person. Unfortunately, many libertarians, devoted to the right to make contracts, hold the contract itself to be an absolute, and therefore maintain that any voluntary contract whatever must be legally enforceable in the free society. Their error is a failure to realize that the right to contract is strictly derivable from the right of private property, and therefore that the only enforceable contracts (i.e., those backed by the sanction of legal coercion) should be those where the failure of one party to abide by the contract implies the theft of property from the other party. (1982/2002, 133)

What are the rights of property? J.E. Penner writes that “The currently prevailing understanding of property in what might be called mainstream Anglo-American legal philosophy is that property is best understood as a "bundle of rights."” (1996, 712). One version of the bundle of rights conception of property is what Penner terms the “Substantive Bundle of Rights View” (1996, 733). This view “emphasizes the value that owners have in their right to use and transfer their property” (1996, 734) and thus recognizes that property entails a right to use some owned resource. A subtype of the substantive view is what Penner terms the “"Disaggregative" Version of the Substantive Bundle of Rights View” (1996, 734). This view of property views the rights to the use of some resource as separable from one another. Penner explains, “On the

disaggregative version we regard each possible "use" of one's property under the broadest notion of use possible, as itself a property right if it can form the subject of a transaction, whether in the market or as the result of a tortious "taking."" (1996, 734) This means, for example, that property in a car gives one the right to drive the car, to paint the car, to change the tires on the car, etc. Each is a separate use-right which is given to the owner of the car.

The Rothbardian view of property is a form of the disaggregative version of the substantive bundle of rights view. Rothbard's theory of property holds that property in something gives the owner a bundle of use-rights and that the use-rights included in the "bundle of rights" includes everything except the right to physically alter the person or property of someone else. As Hoppe explains, "This ownership of … places and goods by a person implies his right to use and transform these places and goods in any way he sees fit, *provided only that he does not change thereby uninvitedly the physical integrity of places and goods [owned] by another person*" (1993/2006, 383). All other use of property is thus permitted under a Rothbardian view of property.

How are property rights distributed in the Rothbardian view of property? As Hoppe explains,

> Interpersonal conflicts are always and everywhere conflicts concerning scarce things. I want to do X with a given thing and you want to do Y with the same thing. … Absent a perfect harmony of all interests, conflicts regarding scarce resources can only be avoided if all scarce resources are assigned as private, exclusive property to some specified individual. Only then can I act independently, with my own things, from you, with your own things, without you and me coming into conflict. But who owns what scarce resource as his private property and who does not? First: Each person owns his physical body that only he and no one else controls directly. … [S]econd, as for scarce resources that can be controlled only indirectly (that must be appropriated with our own nature-given, i.e., unappropriated, body): Exclusive control (property) is acquired by and assigned to that person, who appropriated the resource in question first or who acquired it through voluntary (conflict-free) exchange from its previous owner. (2018, 24-25)

This conception of property distribution is based in what Robert Nozick terms a "historical principle" (1974, 153) as property rights are assigned based on the historical circumstances upon which one came to own a resource. The Rothbardian distribution of property rights is a version of Nozick's "Entitlement Theory" (1974, 150) made precise. Nozick describes the entitlement theory as follows:

1. A person who acquires a holding in accordance with the principle of justice in acquisition is entitled to that holding.
2. A person who acquires a holding in accordance with the principle of justice in transfer, from someone else entitled to the holding, is entitled to the holding.
3. No one is entitled to a holding except by (repeated) applications of 1 and 2. (1974, 151)

The Rothbardian view of property offers explicit principles of justice in acquisition and in transfer. For the principle of justice in acquisition, the Rothbardian view accepts John Locke's theory that one becomes the proper owner of something by having "mixed his labour with" (Locke, 1689/2016, 86) a previously unowned resource. And, for the principle of justice in transfer, ownership is transferred by voluntary mutually agreed-upon contracts between property owners within the constraints of the title-transfer theory of contract as will be described in detail below.

The Rothbardians conception of property is just one way in which the disaggregative substantive view of property can offer an account of the use-rights one has over their property. Other versions of the disaggregative substantive view of property can take more restrictive forms. For example, one might have a view of property in which the bundle of rights includes only the right to use property insofar as it benefits the public good. This conception of property could still be explained as a bundle of use-rights. For example, under this conception of property, one may have the right to use a car to drive themselves to work, but not to drag race which may

be dangerous to themselves or the public. The Rothbardian view is only one view of what is included in the bundle of rights and not the only one.

The reason that the Rothbardian view is explained in this project is that it has been the view of property through which a great part of the fractional-reserve banking debate has taken place. The particular importance for this project is the rights that are given to those who hold property in money. The Rothbardian view says that one has the right to use money in any way they see fit as long as it does not physically invade the property of others. Other, more narrow views, however, may posit that one can use money to purchase apples and oranges, but not to purchase marijuana, which would be permitted under the Rothbardian view. As is described below, other substantive views of property which are similar to our folk-understanding of property require a theory of contracts which meet particular criteria in order to properly understand how use-rights can be exchanged. Thus, in explaining the Rothbardian view of property and contract, we can reach conclusions about our folk-understanding of property and contract since, as I will argue, the two views are sufficiently similar.

Since the Rothbardian rights of property protect one's property from being physically altered by others, no contract which requires the uninvited physical invasion of someone else's property can be considered legitimate in a theory of contracts compatible with a Rothbardian view of property. For example, a contract which stipulates that party A and party B will physically change the property of an unwilling participant, C, cannot be considered legitimate. It should be clear then that it is not *any* contract which must be explicitly recognized, but instead, only those contracts which are compatible with the right of private property.

This fits with our already existing notions of property and contract. We often think that we can agree to have our own property changed or physically altered in ways which we agree to

but cannot agree without the consent of another property owner to change that which they own. Certainly, a contract which stipulates that I must vandalize or destroy someone else's property is obviously criminal and could not be considered legitimate. For example, it seems that I have the right to have my car painted pink by a car detailer, but I do not have the right to have my neighbor's car painted pink without their authorization. And, when we exchange with one another, we recognize that we can only exchange that which already properly belongs to us. I could not agree to sell your car or the right to use your car to someone else without your consent. Thus, it is only those contracts which determine the exchange of resources already owned by the parties involved in the contract which should be regarded as legitimate.

It is also the case that a theory of contracts in line with disaggregative substantive view of property must never assign exclusive property rights over one resource to more than one individual at a time since property rights consist of the right to *exclusively* control a resource. A theory that did not meet this criterion would not avoid conflict but would, instead, *guarantee* that there be conflict over the use of that resource since more than one person would have the right to use the property as they please. That is to say that two people cannot be granted "the right to use and transform" (Hoppe 1993/2006, 383) a single resource "in any way [they] see fit" (Hoppe 1993/2006, 383), since this would create a conflicting rights to the use of that resource. As soon as both parties have incompatible plans for the use of that resource, conflict must ensue. Walter Block uses the following example to illustrate the problem with such an allocation of property rights:

> [I]f A … and B … each fully own a car, then there IS a conflict in rights. Each has a right to do with the car what he or she wants. Now, there may not be an ACTUAL conflict, if they both want the car used for the same purpose. But, there is still a conflict in RIGHTS. A wants the car used for washing it; B wants to take it on a trip. They both have a RIGHT to use the car for these incompatible purposes. (2008)

This insight is not exclusive to the Rothbardian view of property. While the Rothbardian view holds that people have the right to *any* use of their property insofar as it does not physically invade the property of others, other theories of property must refrain from assigning conflicting rights to the use of some resource. Even with theories of property which ascribe to property owners more limited use-rights than the Rothbardian view (e.g. a theory of property which holds that the use of property can only be for the common good and no other purposes), they could not ascribe the right to use property to two people for incompatible purposes. Take the above car example from Block. Suppose that a theory of property holds that cars can be used only for the use of transporting oneself to and from work. This theory still could not give Jones the right to drive the car to his work in the west of town everyday and Smith the right to drive the car to his work in the east of town everyday since both these rights cannot be simultaneously fulfilled.

There is another conclusion which can be drawn about the nature of contracts which conform to the Rothbardian view of property. All contracts which *are* compatible with the rights of property and are voluntarily agreed to, must be recognized as legitimate. To not recognize legitimate contracts amounts to a violation of property rights. Again, this aligns with how we in western capitalistic societies ordinarily consider the enforceability of contracts. We recognize that each party involved in a contract must "hold up their end of the bargain". Imagine, for example, that party A contracts to sell a chair to party B for the sum of $100. Upon the delivery of the chair to party B, party B refuses to pay the agreed upon sum of money to party A. A theory which fails to recognize this contract will instead recognize as legitimate the theft of party A's property and a violation of party A's right of property.

Further, since property rights, in the Rothbardian view, *include* the right of contract, any restriction upon the right of legitimate contract *also* constitutes a rights violation. If, for example,

party A contracts to sell a chair to party B for $100 and party C uses force to stop the transfer of the chair from A to B and the transfer of $100 from B to A, then C has infringed upon the property rights of A and B since they have *lost* the ability "to give it away or to exchange titles of ownership for the property of another person" (Rothbard, 1982/2002, 133), an essential characteristic of property rights.

Once again, this conception follows our already existing folk-understanding of property and contract. If one has the right to use an apple by eating it, then they seem to have the right to sell that right. This is precisely what happens when one buys an apple from the grocery store. The store owner who previously owned the apple had the right to eat it but *sold* that right to the patron buying the apple. Thus, to disallow the grocery store owner the right to sell the apple would be an infringement on their property right over the apple.

A theory of contracts compatible with the Rothbardian view of property, then, must i) recognize the right of property, ii) recognize as legitimate all contracts which are compatible with the right of property and iii) not restrict the creation of any contracts which are compatible with the right of property. In accordance with these criteria, Williamson Evers (1977) and Murray Rothbard (1982/2002) constructed the *title-transfer theory of contract*. The title-transfer theory of contract stipulates that all contracts are a transfer of title to some piece of property from the current owner to a future owner. *Title* is the list of rights that a property owner has over the use of their property. Again, as stated by Hoppe, the right of property under the Rothbardian view of property gives the owner of some resource, "the right to use and transform these places and goods in any way he sees fit, provided only that he does not change thereby uninvitedly the physical integrity of places and goods [owned] by another person" (Hoppe 1993/2006, 383). The title-transfer model is one way of making more precise the way in which we ordinarily think

about contracts. When we say that we contract to sell a piece of property, the title-transfer theory of contract stipulates that what we are *actually* saying is that we are transferring the right to use that piece of property from ourselves to the other contracting party. For example, a contract which stipulates the sale of some good *x* from party A to party B for the price of $*y* is formulated as such: Party A hereby transfers the title to good *x* to party B and party B hereby transfers the title to $*y* to party A. In this way, B now has the *right to use* the good *x* and A now has the *right to use* the $*y*.

Title to property can be restricted or unrestricted. *Unrestricted* title gives the owner of some resource the "right to use and transform these places and goods in any way he sees fit, provided only that he does not change thereby uninvitedly the physical integrity of places and goods [owned] by another person" (Hoppe, 1993/2006. 383). This unrestricted title gives the owner a bundle of rights; the right to use the resource on Tuesdays, the right to use the resource in Toronto, the right to use the resource for fishing, the right to eat the resource, the right to sell the resource, etc. The owner is *only* barred from physically invading the property of others; all else is part of the bundle of rights.

However, as this view of property is a disaggregative substantive bundle of rights view and thus recognizes the use-rights to a resource can be separated and sold off. By this separation and sale of rights one can also gain *restricted* title to some resource via contract. Restricted title gives a property owner a bundle of rights over the use of their property but not all the rights that come with unrestricted title. As Evers writes, "Under the title-transfer model, the rights pertaining to different aspects of some piece of property could be divided up among several actual owners … Such a right would have to belong to some existing owner (whether person or corporation) to have effect under the title-transfer model" (1977, 7). Someone with unrestricted

title to a piece of property can sell, for example, the right to use the resource on Tuesdays. Now, both owners have restricted title to the piece of property. The original owner has the right to use the resource on Mondays, Wednesdays, Thursdays, Fridays, Saturdays, and Sundays, while the new owner has the right to use the resource on Tuesdays. Formulation of these contracts are possible only insofar as they do not create conflicting rights. For example, one could not sell the right to eat a cake on Monday and retain the right to eat that same cake on Tuesday since eating the cake on Monday makes it impossible for one to exercise their right eat the cake on Tuesday. Penner gives a similar explanation for *all* disaggregative substantive bundle of rights theories explaining, "my selling you the right to use my car for a day is regarded as my transferring one of the "sticks" of the bundle that constitutes my ownership, which stick is itself a property right. … [P]resumably I have 365 such sticks for each year I own it" (1996, 734).

Title is transferred upon the mutually voluntary acceptance of the terms of the contract. All parties privy to the contract must agree to the give up the rights to the use of some resource (stipulated in the contract) which they held prior to the contract and *transfer* those rights to the other contracting party. Usually, although not in cases of gift-giving, one party gives up the right to the use of some resource *in exchange* for the right to use some other resource. Once both parties agree to the details of which rights are transferred from whom to whom, the contract is accepted and both parties gain the legal rights set out in the contract. For example, someone may exchange unrestricted title to a car (thus giving the new owner the right to use the car in any way which he so chooses provided only that he does not physically invade the property of others) in exchange for the restricted title to the use of the other party's summer home, say, the right to the exclusive use of the summer home in the months of June and July every year. The contract is enacted if the first party *agrees* to give up their right to use the car at all and the second party

agrees to give up his right to the use of the summer home in the months of June and July. These two bundles of rights (the unrestricted right to use the car and the restricted right to use the summer home in June and July) are thereby *transferred* between parties.

Contracts can have immediate effective dates, meaning that the rights are transferred the instant the contract is accepted by both parties. Or, the contract can have an effective date in the future, meaning that the transfer of rights does not occur until the selected date. Until this date, both parties retain the right to the use of the resources which they had prior to the acceptance of the contract, with the following restriction: Neither party may use the resources in ways which would hinder the ability of the future owner to take full advantage of the rights over the use that resource that they *will* gain once the effective date of the contract is reached. Consider the above example of the car and summer home. The car owner, prior to the acceptance of the contract, had unrestricted title the car. This means that he has the right to use the car in any way he sees fit. This *includes* the right to drive the car into a tree an effectively destroy the car. However, once he enters into the above exchange contract with a future effective date, he no longer has the right to destroy the car since it would hinder the car-purchaser's right to the use of the car in the future.

Kant's Theory of Contract

The title-transfer theory of contract follows in the Kantian tradition of contracts in which a contract involves the acquisition of rights by one party from another.[1] The title-transfer theory of contract also conceptualizes contracts as an exchange of rights. Kant defines legal rights as that which corresponds to an obligation owed from one person to another which can be fulfilled

[1] See Kant, Immanuel. 1796/1887. The Philosophy of Law: An Exposition of the Fundamental Principles of Jurisprudence as the Science of Right. Edinburgh: T. & T. Clark.

by actions (1796/1887, 45-46), calling them "strict rights" (1796/1887, 47). These are contrasted with moral rights in which one person is owed not only the obligation as manifested through action, but also that the person fulfilling their obligation act in accordance a virtuous conscious (1796/1887, 47). Strict rights are "that with which nothing ethical is intermingled" (1796/1887, 48). One could not, for example, have a strict right to you internally wishing them well since this is not manifested in action. One could, however, have a right to you saying the words, "I wish you well" since that is itself an action. As Kant writes, "A *strict* Right, then, in the exact sense of the term, is that which alone can be called wholly external" (1796/1887, 48)

These rights, obligations that we owe to one another, can be both created and transferred though contract. For Kant, a contract "consists of two juridical Acts: The PROMISE and its ACCEPTANCE" (1796/1887, 21). The promisor offers the terms of the contract to the acceptor and the acceptor accepts them, binding both to the terms of the contract. For Kant, this means that one or both parties are now owed a different set of obligations than they were before they entered into a contract. Kant separates these into three types of contracts; 1) "Gratuitous Contracts" (1796/1887, 122) in which only one party acquires new rights, 2) "Onerous Contracts" (1796/1887, 122) in which both parties acquire new rights and 3) "Cautionary Contracts" (1796/1887, 122) in which neither party acquires rights but instead, are guaranteed their already acquired rights by certain precautions (e.g. a surety in which one promises to have their obligations performed by another party or agent). Contemporary title-transfer theory of contract, within the Rothbardian view of property, stipulates that the obligations that are owed when one gains a property right over some resource is the obligation of all others to not physically invade the resource which has come under their own exclusive control (their property). Beyond this, no such obligation is owed to property owners.

Fraud

Rothbard defines fraud as "failure to fulfill a voluntarily agreed upon transfer of property" (1982/2002, 143) as it amounts to "implicit theft" (1982/2002, 143). Rothbard uses the following as a clear example of fraud: "If … A sells to B a package which A says contains a radio, and it contains only a pile of scrap metal, then A has taken B's money and not fulfilled the agreed upon conditions for such a transfer—the delivery of a radio" (1982/2002, 143). In the above listed case, what has occurred is that upon the agreement to the terms of the contract by both parties, title to a radio is transferred from A to B and title to money is transferred from B to A. In both cases the transfer of title can only be considered legitimate upon the actual delivery of the promised property. A has only truly transferred title to his radio to B when he receives the money from B and B has only truly transferred title to his money when he receives the radio from A. The transfer of title is *conditional* upon the other side of the contract being upheld. In this case, B did *not* receive the radio and therefore has not legitimately transferred title to his money to A. Thus, if A takes B's money, he is stealing money which is not his since the money only became his upon the delivery of the radio. Thus, title-transfer of theory of contract offers us definitive ground for understanding when fraud has occurred: when one party fails "to fulfill a voluntarily agreed upon transfer of property" (1982/2002, 143).

Fractional-Reserve Banking

Fractional-reserve banking is the form of banking which we are most familiar with today. When we deposit money into the bank, the bank takes some proportion of that money, and lends it out to others, who borrow the money at a specified interest rate. In turn, the bank pays the depositor interest on their deposits (with profitable business practices) at a rate lower than the

borrowers are paying to the bank. In this way, the bank acts as a credit intermediary between depositor and borrower: The depositor can lend their money to others without the work of searching for a borrower and negotiating a rate or bearing the risk of non-payment from the borrower (although they still incur the risk of non-repayment from the bank). The amount of deposited money which can be lent out is often set by statute known as the minimum reserve ratio. This is the minimum percentage of deposited money that banks must keep on-hand so that depositors have access to the money in their bank accounts.[2] For example, with a minimum reserve ratio of 10%, for every $100 deposited, $90 can be lent out and $10 must be held by the bank.

When depositors deposit money with a bank, they are given what are known as *deposit certificates*. These certificates state that the holder of the certificate has the right to ask for the specified amount of money deposited from the bank at any time. Deposit certificates can and historically have taken on multiple forms. Early paper money in Europe, for example, was the use of paper deposit certificates which depositors could use to demand gold deposited at banks or with goldsmiths at any time. When a depositor would deposit 20oz of gold with a bank, they would be given a deposit certificate for 20oz of gold which they could use to claim 20oz from that bank when they chose. These certificates could be, and historically were, exchanged between private citizens meaning that those who held the deposit certificates could demand the amount deposited from the bank at any time even if they themselves were not the original depositors of the gold. Today, deposit certificates take on numerous forms. One widely-known example is that of the chequing account. Depositors are able exchange "certificates" to the right

[2]As of March 2020, the minimum reserve ratio in the U.S. is 0%, 1% in the Eurozone, and in Canada no such minimum reserve ratio exists

to claim money deposited by swiping their debit card or they can actually ask for deposited money by using an ATM, exchanging their deposit certificates, which in this case is an amount of available funds in a digital chequing account, for actual money which they gain from the ATM. For example, if someone has $100 in their chequing account, this represents deposit certificates in for the amount of $100 which they can ask to have delivered to them at any time. If they use an ATM to take out $100 cash, they demand the amount deposited right then. Or, they can use their debit card to exchange the deposit certificates to a merchant, transferring the deposit certificates to the merchant by swiping their card, which the merchant can now use to have the deposited money delivered to them at any time. For example, $5 of deposit certificates can be exchanged for an apple and the merchant can now use those deposit certificates to claim $5 of money that is in the bank. No matter the medium, what a deposit certificate stipulates is that the holder can claim the amount of money specified by the certificate from the bank which holds the money at any time.

The lending of deposited money by the bank can take one of two forms. In the first case, the bank simply takes money which has been deposited and gives it to borrowers. The borrowers are then free to use the money however they please but must repay the loan and its associated interest at the date which the loan becomes due. The second way in which the bank can lend the money to borrowers is by the creation of *additional* deposit certificates that are held, not by depositors, but by borrowers. For example, a bank may decide to create a line of credit for the borrower who, at any time, may demand some amount of money from the bank knowing that they, the borrower, will have to pay interest to the bank on money they have taken. In this way, the borrower has a similar relationship the bank as the depositor. The borrower may ask for money from the bank whenever he desires. The difference is that the borrower pays the bank

interest for the right to use the money they take out, whereas in the case of the depositor holding deposit certificates, the bank pay the *depositor* for the right to the use of the money deposited.

Fractional-reserve banking can be contrasted with 100% reserve banking. In this case, the bank keeps all of the deposited money on hand for the depositor to access. The bank also refrains from the creation of demand deposits in excess of the amount of money held by the bank which means that all demand deposits would be held by depositors or by those whom the depositors had exchanged them with. So, if a bank held $1,000,000 in their reserves, this would mean that exactly $1,000,000 in deposit certificates would be held by depositors, no more. This form of banking does not act as a credit intermediary but, instead, acts as a storage facility for money deposited. Since the bank would not be able to earn interest on money lent, they would not be able to pay their depositors an interest rate for their money deposited. Rather, depositors would likely have to pay a storage fee to the bank for holding their money for them.

Jesús Huerta de Soto has attempted to describe the nature of contracts within the sphere of banking while conceptualizing contracts as an exchange of use-rights. In his book, *Money, Bank Credit, and Economic Cycles*, de Soto describes four different forms of contracts which are pertinent to current discussion of the practices of fractional-reserve banking. The first is the *commodatum* contract in "which one person—the lender—entrusts to another—the borrower or commodatary—a specific item to be used for free for a certain period of time, at the end of which the item must be restored to its owner" (1998/2006, 2). In this case, title to that item is transferred to the borrower for the specified period for which the contract stipulates and then title is returned to the original owner. The second is the *mutuum* contract in "which one person –the lender—entrusts to another—the borrower or mutuary—a certain quantity of fungible goods, and the borrower is obliged, at the end of the specified term, to return an equal quantity of goods of

the same type and quality" (1998/2006, 2). Again, in this case, title to the fungible goods is transferred to the borrower at the beginning of the borrowing period. The difference, here, is that title to *different* goods is then transferred to the lender at the end of the borrowing period. For example, Jones could have a mutuum contract with Smith in which he transfers ten bushels of wheat to Smith for three weeks. During those three weeks, Smith is able to consume the wheat, sell the wheat, or do anything he pleases with the wheat. Then, at the end of the three weeks, Smith must repay Jones *any* ten bushels of wheat as long as they are of similar quality. This is unlike the commodatum contract in which Smith would have to return the *specific* bushels of wheat loaned to him. The third is the *regular deposit* contract in "which one person—the depositor—entrusts to another—the depositary—a moveable good for that person to guard, protect, and return at any moment the depositor should ask for it" (1998/2006, 4). In this case, there is no transfer of title to the good from depositor to depositary, but instead, remains always with the depositor. Thus, the deposited good is *always available* for the depositor to take when he wishes. The fourth is an *irregular deposit* contract in which is similar to the deposit contract but in this case, once deposited, "the goods become indiscernibly mixed with others of the same type and quality" (1998/2006, 5). De Soto offers two accounts of how title should be regarded in this case: his own, and his student, César Martínez Meseguer's. De Soto explains that ""ownership" of the deposited good is transferred [from depositor to depositary] in the case of the deposit of fungible goods" (1998/2006, 5). Meseguer's account of the irregular deposit claims that "there is no true transference of ownership, but rather that the concept of ownership refers abstractly to the *tantundem* or quantity of good deposited and as such always remains in favor of the depositor and is not transferred" (1998/2006, 5). Regardless of the interpretation, what is paramount for de Soto is that "there is always an *immediate availability* in favor of the

depositor" (1998/2006, 6). Thus, de Soto argues that "the essence of the deposit remains unchanged and that the irregular deposit fully shares the same fundamental nature of all deposits: the *custody and safekeeping* obligation" (1998/2006, 6).

The first two forms of contracts, the commodatum and the mutuum, are forms of loan contracts. The *purpose* of the contract is loan of the property from the lender to the borrower. The other two forms of contracts, the regular and irregular deposit, are forms of bailment contracts. The *purpose* of the contracts is the safeguarding or protection of the depositor's property by the depositum. Throughout the development of the fractional-reserve banking debate, the language has become more precise by distinguishing between two types of loan contracts; the commodatum and the mutuum and between two types of bailment contracts; the regular deposit and the irregular deposit. Throughout this project various authors refer to bailment and loan contracts. In the case of specific goods, a loan contract refers to a commodatum and a bailment contract refers to a regular deposit. In the case of fungible goods, a loan contract refers to a mutuum and a bailment contract refers to an irregular deposit.

The difference between the mutuum and the irregular deposit is that it is not a loan of present good in exchange for future goods, but instead, a bailment in which the depositor gives his money to the bank for safekeeping. De Soto makes clear that this is the essential difference between the two forms of contracts: "The essential legal element in the irregular deposit contract is the custody or safekeeping of the money deposited … and it varies greatly from the essential purpose of the [mutuum] contract which is the transfer of availability of the loaned food to the borrower so he can use it for a period of time" (1998/2006, 17). In his book *The Case Against the Fed*, Rothbard argues that the bank deposit should be considered an irregular deposit, not a mutuum. Rothbard argues that deposit of fungible goods was historically recognized as a

bailment contract (a contract in which the depositor retains title to the deposited goods, i.e. an irregular deposit) between depositor and warehouse keeper. For example, he points to 1860s grain elevators who were considered to be committing fraudulent practices when they created deposit certificates for grain in excess of the amount of grain that was actually in their possession. In this case, the elevators would take in grain from farmers and give them deposit certificates which the farmer could return to the elevator and collect the same amount of grain they deposited. However, the grain elevators would issue certificates in greater quantities than they actually held in the elevator. This practice, of lending grain in their reserves, was viewed as fraudulent since the wheat held by the elevators was considered to be held on bail: title to the wheat was held by the depositor, not the elevator, and the depositor had the right to ask for their grain at *any time*. Therefore, the elevator had no right to create deposit certificates in greater quantity than existed in the elevator since not everyone holding a deposit certificate could collect their wheat when they asked for it.

However, with the deposit of money, there was a different legal interpretation. Instead, money deposited with banks was considered a loan contract with title being transferred from the depositor to the bank. The first case cited by Rothbard as interpreting the bank deposit as a loan is *Carr v. Carr* (1811) in which "the British judge, Sir William Grant, ruled that since the money paid to the bank deposited had been paid generally and not earmarked in a sealed bag (i.e. a specific deposit) that the transaction had become a loan rather than a bailment" (Rothbard, 1994/2015, 42). Then, he points to the 1816 case, *Devaynes v. Noble* in which Grant insisted, against a counsel member, that "money paid into a banker's becomes immediately part of his general assets; he is merely a debtor for the amount" (1816) arguing that a transfer of title from depositor to bank did, in fact, occur when the money was deposited. Finally, Rothbard points to

the "culminating case" (1994/2015, 42) of *Foley v. Hill and Others* (1848) in which Lord Cottenham offers the following ruling:

> The money placed in the custody of a banker is, to all intents and purposes, the money of the banker, to do with it as he pleases; he is guilty of no breach, of trust in employing it; he is not answerable to the principal if he puts it into jeopardy, if he engages in a hazardous speculation; he is not bound to keep it or deal with it as the property of his principal, but he is of course answerable for the amount, because he has contracted, having received that money, to repay to the principal, when demanded, a sum equivalent to that paid into his hands. (1848, 36-37)

For Rothbard, what is in order is the treatment of bank deposits (deposits of money) to be treated as bailment contracts (irregular deposits) and *not* as loans (mutuums). The key difference is that title to money held on bail remains with the depositor. Thus, the banker has no right to the use of the property which goes beyond guarding or safekeeping the money. This mean that they have no right to consume the money (for example, by burning it), exchange it for other goods, or to loan the money out. Contrast this to the mutuum contract in which title *is* transferred from lender (depositor) to the borrower (bank) which would give the borrower the right to use the money how they see fit given only that they return the money once it comes due. If it is the case that the bank has no right to use the money in any way other that guarding it (i.e. the money is held as an irregular deposit), then the bank must keep all deposited funds on hand since any *other* use of the money would be a violation of the depositor's property right over the money. Rothbardians argue that since depositors have the right at any time to demand money deposited, it is tantamount to them having never transferred title to the banks in the first place. Rather, depositors retain title to the money deposited and the banks merely act as warehouses for the safeguarding of deposited money. This would be the 100% reserve model described above. And thus, the Rothbardians argue for such a model of 100% reserve banking and hold that fractional-

reserve banking is fraudulent. It is this question which will be the question of concern in this project.

The Fractional-Reserve Banking Controversy

While criticisms of fractional-reserve banking can be seen at least as early as the late nineteenth century,[3] the debate between fractional-reserve banking's legitimacy when viewed through the lens of the title-transfer theory of contract, has largely been between two schools of thought. The first are the "Rothbardians" who oppose fractional-reserve banking and advocate a 100% reserve banking system. The others are the "Free Bankers" who do not oppose fractional-reserve banking and consider it to be legitimate.[4] The debate has been ongoing for over half a century now with the first serious criticism from the Rothbardians coming in 1962 with the publication of Rothbard's *The Case for a 100 Percent Gold Dollar* in which Rothbard declares unequivocally, "In my view, issuing promises to pay on demand in excess of the amount of goods on hand is simply fraud and, and should be so considered by the legal system" (44). Since then, the debate has led to a great deal of literature and in 2008 Walter Block, a Rothbardian, and Lawrence White, a Free Banker, compiled a list of thirty-seven publications on the debate.[5]

One argument that has been posited by the Rothbardians is that fractional-reserve banking is fraudulent because depositors are unaware of the fact that money they deposit in the bank is being lent out. Hoppe writes that "few if any" (1994, 70) depositors are aware that their money is being lent out. This is an important criticism, for if it is true that depositors themselves

[3] See Jevons, W. Stanley. 1875. *Money and the Mechanisms of Exchange*, 15th ed. London: Kegan Paul, p. 206-216
[4] It should be noted that *both* schools of thought oppose central banks who can act as a 'lender of last resort' to the banks by printing more money if they are unable to meet the demands for money by those holding demand deposits. For this project, we will put aside the problems that are created by a central bank and assume that any banking practices would occur *without* a central bank.
[5] See Block, Walter. 2008. "The Danger of Fractional-Reserve Banking." *LewRockwell.com*. November 1.

believed that their money was being held for safekeeping and not being lent out, then it would appear that the depositors, at least, believed that they were entering into a bailment or irregular deposit contract, not a loan or mutuum contract.

In response, the Free Bankers point out that whether or not depositors are aware of the fact that the money deposited is being lent out is an empirical question whose answer is the opposite of the one provided by Hoppe. George Selgin and Lawrence White argue that they "find it hard to believe that most people who patronize fractional-reserve banks do so under the delusion that 100 percent of the money they deposit remains in the bank's vault until the moment they ask for it back" (1996, 87-88). For them, the fact that depositors receive interest, which as even Hoppe admits would not occur if deposited money was not being lent out, should be enough for depositors to realize that the deposited money is being lent out. In fact, as Selgin and White point out, Rothbard himself has written that "[i]t is well known that banks have rarely stayed on a '100 percent' basis very long" (1963/2015, 40). It is also pointed out by White and Selgin that many deposit contracts *explicity* noted either that money deposited was being lent out or included clauses allowing banks to suspend payment of money deposited for a certain period of time. Selgin and White offer the example of "[t]he Scottish banks that issued option clause notes explicitly reserved the right to defer redemption for a specified period, in which case the note would be repaid with a specified (and high) interest bonus" (1996, 89). For this project, I will set aside this empirical question and, instead, focus on the following two criticisms of fractional-reserve banking raised by the Rothbardians.

Another argument made by the Rothbardians is that the fractional-reserve banking model "must be regarded as inherently bankrupt" (Hoppe, 1994, 69). Hoppe argues that this is because the bank *cannot* meet all of its contractual obligations since it could not theoretically stand a

bank run in which all depositors asked to have the money they deposited back at once. It certainly is the case that banks that operate on a fractional-reserve basis cannot stand a bank run but, as I will argue later on, this does not mean that banks *cannot* meet all of their contractual obligations, but instead, that there is a possibility that they *might* not meet their contractual obligations. Rothbard makes clear this criticism with a proposed example of the "Rothbard Deposit Bank" (1994/2015, 47) who creates demand deposits for borrowers which far exceeds the amount of money held by the bank from depositors: "Suppose that the Rothbard Deposit Bank, previously hewing to 100-percent reserves, decides to make a quick killing and go all out: upon a cash reserve of $20,000, previously banking receipts of $20,000, it decides to print unbacked warehouse receipts of $1,000,000, lending them out at interest to various borrowers" (1994/2015, 51). In this case, Rothbard argues that the bank may continue operations unimpeded but only until a depositor demands the money in a greater quantity than what is actually held by the bank. "Suppose, for example, that [someone holding the warehouse receipts] … presents the receipt for $1 million to the Rothbard Bank and demands redemption. What happens? The Rothbard Bank, of course, has peanuts, or more precisely, $20,000. It is immediately insolvent and out of business" (1994/2015, 52) Thus, for the Rothbardians, the practice of issuing receipts for money in excess of the amount of money actually held by the bank is fraudulent as it shows that the bank is inherently bankrupt and cannot meet its contractual obligations to redeem those warehouse receipts.

The important distinction here is, again, whether or not money deposited in a bank represents a loan or a bailment contract. If the money deposited is the property of the depositor, then the money truly is owed to them *now*. That is to say that the depositor, having title to the money, is *currently* owed the money since the bank never had title of the money to begin with.

They could not have met their obligations to the depositor since their obligation was to safeguard the money, not to lend it out. In contrast, if a bank deposit can be viewed as a loan, then it is entirely possible for banks to meet all of their contractual obligations. In this case, the loan becomes "due" when the depositor asks for their money back. Therefore, the only contractual obligation that is owed to the depositor is that they gain title to the money upon asking for it. As long as banks return money to depositors when it was asked for, then no contractual obligations were not met. As an empirical fact, Selgin argues that "genuine banking crises have been rare in most well-studied fractional-reserve banking systems and entirely absent in several" (1994, 595) noting that several countries including Canada, Scotland, and Sweden would go decades on end without failing to return money to depositors when it was demanded (1994, 597). Thus, if it is the case that bank deposits represent a loan, as I will argue it is, then it is not impossible for banks to meet their contractual obligations, but rather, we can see from empirical evidence that banks can and *have* met these obligations for decades on end.

A third argument against the legitimacy of fractional-reserve banking brought up by the Rothbardians is that fractional-reserve banking creates double-title to the same piece of property. By this they mean that when the bank loans out deposited money to borrowers, it is saying that both the depositor and the borrower have title to the same piece of property, namely, the money deposited. Consider the above-mentioned rule that unrestricted title to the same piece of property cannot be attributed to more than one person at a time. The reason for this is that it creates a conflict of rights in that both parties would have the right to use the property in any way they see fit, including ways which might conflict with each other. In the case of deposited money, what the bank is saying is that the depositor has the right to use the money in any way they please and

so does the borrower. This means that the depositor has the right to spend the money on a new car and the borrower has the right to spend the money on a new laptop, a conflict of rights.

Again, though, this account of fractional-reserve banking is only correct if money deposited is truly a bailment, not a loan. Consider the Free Banker account of what is happening to the title of the money as it moves from depositor to bank to borrower. When the depositor deposits their money in a bank, they are transferring title to that money from themselves to the bank. What the bank gives up *in exchange* for title to the money is the right of the depositor to gain title to the same *amount* of money (but not the exact same bills they deposited) when they ask for it, from the bank. Then, the bank transfers title of that money to the borrower, who, in exchange, gives up title to some amount of money greater than the sum borrowed (the principal plus interest) *in the future*. In this account of the bank deposit and subsequent lending of money deposited, there are no conflicting rights to the money at any time. Once the money has been deposited, the bank gains title to the money and the depositor loses it. Once the money has been lent out to the borrower, the borrower gains title to the money and the bank loses it. At no time does more than one person have title to the same piece of property.

The Rothbardians, however, argue that this account is simply not plausible. In giving the depositor the right to take the same amount of money deposited from the bank at any time, it is the *same as* the depositor retaining title. As Block and William Barnett write, "A deposits $10 in bank B on demand. This is not a time deposit, but rather a demand deposit. The length of "time" for this demand deposit is 0 years, 0 months, 0 weeks, 0 days, 0 minutes and 0 seconds" (2017, 54). Thus, for the Rothbardians, a bank deposit does not constitute a transfer of title from the depositor to the bank. Rather, the depositor always retains title to the property.

If this is the case, then upon the bank lending out the money they hold from depositors, they would, in fact, be creating a dual title to the same piece of property. This, charges Block, amounts to fraud as it is selling that which is impossible: two people having conflicting rights over the same piece of property. It is not possible for the depositor to spend the money on wheat and the borrower to spend the money on beef, two rights which would be assigned if both depositor and borrower had title to the same money. So, for the Rothbardians, such a contract that stipulated this would be the same as selling magic beans. As Hoppe, Block, and Jörg Guido Hülsmann argue, "agreements regarding flying elephants, centaurs, squared circles, of perpetui mobile, for instance, are invalid contracts. They cannot—by virtue of biological physical, or mathematical law—be fulfilled, and are from the outset false and fraudulent" (1998, 26). This is the same status they attribute bank deposits being recognized as loans: it is selling the impossible and therefore fraudulent.

The Free Bankers, however, argue that such a contract is not impossible but take on the form of what we commonly call "callable loans" (White, 2007) or *call loans*. A call loan is similar to a regular loan insofar as there is a lender, who lends money out at a specified interest rate to a borrower. The difference is that whereas the normal loan has a specified end date at which the borrower must return the amount borrowed, the call loan is due back to the lender the day the lender asks for it. The call loan can have its due date be only the date that the lender asks for their money back or it can have a specified due date with the *option* for the lender to ask for the money returned before that date. The Free Bankers, therefore, argue that if viewed as a call loan, the bank deposit does not fall into the trap of having two people with title to the same money at the same time. In this case, title to the money is transferred from the depositor to the bank from the date of the deposit, until the depositor asks for the money returned, in which case

title to the same amount of money deposited is transferred from the bank, to the depositor. During the time which the bank has title to the money, it can do as it please with that money including, most importantly, lending the money out. As long as the bank returns the proper amount of money to the depositor when the depositor demands, the bank has never created a double-title to the same piece of property.

The aim of this project is to show the legitimacy of the call loan under the title-transfer theory of contract and show that when bank deposits are viewed through this lens, both the charge of inherent bankruptcy and the fraudulent creation of two titles to the same piece of property, are no longer valid. In order to do this, I will draw on contractual practices within other industries such as insurance which will offer us insight into the way that we can think about title to property that is contingent upon some action happening: In the case of insurance, say fire insurance, title to money is dependent upon a fire occurring and in the case of the bank deposit, a form of call loan, title to money is dependent upon the depositor asking for the return of money deposited. In this way, we can also use actuarial practices within the insurance industry to show how banks can manage risk in a similar way as insurance companies do, deciding the amount of cash they should hold depending on the risk of the depositors asking for deposited money in the same way insurance companies decide the amount of cash they should hold depending on the risk of fires occurring.

Chapter 2 – The Call Loan View of Bank Deposits

In the first chapter, we explored how the title-transfer theory of contract has given rise to debate surrounding the legitimacy of fractional-reserve banking. Rothbardians have asserted that an understanding of property rights as a bundle of use-rights precludes the possibility of two people having title to the same resource at the same time. In this chapter, I will explain in detail how Rothbardians have purported that this double-title to property arises within the practice of fractional-reserve banking. Then, I will offer a view of bank deposits as call loans in which such double-title to property never arises as all.

In his 1994 book, *The Case Against the Fed*, Rothbard writes,

> Once our banker begins his career of crime, there are several things he must worry about. In the first place, he must worry that if he is caught out, he might go to jail and endure heavy fines as an embezzler. It becomes important for him to hire legal counsel, economists, and financial writers to convince the courts and the public that his fractional-reserve actions are certainly not fraud and embezzlement, that they are merely legitimate entrepreneurial actions and voluntary contracts. And that therefore if someone should present a receipt promising redemption in gold or cash on demand, and if the banker cannot pay, that this is merely an unfortunate entrepreneurial failure rather than the uncovering of a criminal act. To get away with this line of argument, he has to convince the authorities that his deposit liabilities are not a bailment, like a warehouse, but merely good-faith debt. If the banker can convince people of his trickery, then he has greatly widened the temptation and the opportunity he enjoys, for practicing fractional-reserve embezzlement. (41)

It is my aim in this project to attempt just such trickery and argue that bank deposits can be viewed as good-faith loans instead of bailments. In this chapter, I am going to give an account of the bank deposit as a call loan. With this account of the bank deposit, I will proceed by arguing that the call loan, properly understood under the title-transfer theory of contract, can be recognized as a transfer of title to money from lender to borrower with a conditional transfer of title to money from borrower to lender in the future upon the lender demanding the money. Then,

I will show that this account of bank deposits as call loans a double-title to property, which Rothbardians claim renders fractional-reserve banking illegitimate, never arises. Then, I will present an account of standard banking practices with bank deposits viewed as call loans.

Other Considerations in the Fractional-Reserve Banking Debate

Within the debate between Rothbardians and Free Bankers over the legitimacy of fractional-reserve banking there has arisen a multitude of questions surrounding what role fractional-reserve banking might take within society. Some have argued that people are unaware that they are entering into loan contracts with banks and think that they are entering into bailment contracts. Others have argued that even if fractional-reserve banking could be considered legitimate, there would not be demand for its services. Below, I have outlined how these debates have arisen within the fractional-reserve banking debate and explain why they are outside the scope of this project.

The following is an example of clear and unambiguous fraud under the title-transfer theory of contract: A agrees to pay B $100 a month. In exchange, B will hold A's television for safekeeping and protections against the elements as well as human thieves and vandals. B, instead of holding onto A's television, lends the television out to his friends on weekends, uses the television at his own apartment on weekdays. Here, fraud has clearly taken place. B has failed to uphold a voluntarily agreed upon contract and B has therefore implicitly stolen from A, in this case, in two ways. In the first way, B stole from A by taking his money as the transfer of title of the monthly $100 from A to B was contingent upon the safekeeping and protection of A's television. Since he did not safekeep or protect it, but rather used it and lent it out, B has stolen $100 a month that should never have been transferred to him in the first place. In the second way, B has defrauded A out of his television. When A transferred title to his television to B it

was an example of restricted title. B gained the right to guard, protect, or safekeep the television. This may include placing it in a secure warehouse, moving it from one storage location to another, inspecting it for possible damage. But it *does not* include the right to use the television himself or lend out the television to his friends. Thus, these uninvited uses of A's property by B are implicit theft and fraudulent.

Here, we have a case of a regular deposit, as described above, being made. The depositum does not have the right to do with the deposited goods as they please but must keep the property for safekeeping and protection. If both parties agree to a deposit contract, any use of the property outside of these activities (safekeeping and protection) are illegitimate and fraudulent. For this project, however, these clearly fraudulent activities are not our focus. Instead, this project will explore the possibility of creating contracts that both parties understand and consent to which would allow for fractional-reserve banking to be viewed as legitimate under the title-transfer theory of contract.

Also, it may the case that in a society with strict respect for property rights and the title-transfer theory of contract that fractional-reserve banking may not emerge, even if such business practices were legitimate. This may be from inherent characteristics of the fractional-reserve banking system that would make it difficult to long-operate on a fractional-reserve basis. As Hülsmann argues, "in a free market with proper product differentiation, fractional-reserve banking would play virtually no monetary role." (2003, 403). For example, it is pointed out by Rothbardians that if one bank operating on a 100% reserve basis acquired deposit certificates from a fractional-reserve bank in excess of the amount of money held by fractional-reserve bank (e.g. the 100% reserve bank holds $1,000,100 "worth" of deposit certificates from a fractional-reserve bank which holds only $1,000,000 in cash), it would be in the interest of the 100%

reserve bank to present the deposit certificates for redemption at the fractional reserve banks. This would bankrupt the fractional-reserve bank since they would have insufficient funds to pay out the demanded money. The Rothbardians, therefore, claim that fractional-reserve banking in inherently unstable. It is also possible that fractional-reserve banking may not emerge in a society with strict adherence to the right of property and title-transfer theory of contract due to the public's distaste for fractional-reserve banking. Perhaps consumers prefer to pay a storage fee for 100% reserve banks than be paid an interest and take any perceived risk that comes along from fractional-reserve banking and refuse to solicit fractional-reserve banks. Or, the public may prefer to trade in deposit certificates by banks with 100% reserves since they would much more closely represent money substitutes than deposit certificates from fractional-reserve banks. As Hülsmann argues, "The fractional-reserve [deposit certificates] would be traded in rather narrow circles of merchants and bankers, whereas the overwhelming majority of the population would pay in cash or with genuine money titles" (2003, 403). However, this is, again, not a question which I will consider in this project. The question of if fractional-reserve banking *will* emerge within a system with strict adherence to the right of property and the title-transfer theory is set aside.[6]

Again, we want to consider whether it is possible for two voluntary participants of a contract to create a loan in which the lender can ask for the principal of their loan back at any time which is compatible with the title-transfer theory of contract. Thus, the aim of this project is to determine whether or not such a contract can be considered legitimate under the title-transfer

[6] Our contemporary world cannot definitively tell us whether people would solicit fractional-reserve banks in a society that adheres to the right of property and contract since central banks and public deposit insurance agencies make banking with fractional reserve banks less risky than they would otherwise be. Thus, the empirical question of whether or not people would solicit fractional-reserve banks without a central bank or public deposit insurance agency is put aside for this project.

theory of contract. And, if so, if there are legitimate ways in which fractional reserve banking can operate using them i.e. can a bank deposit contract take this form. This form of loan has been called by Free Bankers a "callable loan" (White, 2007), which refers to what is commonly known as a *call loan*. Thus, I will herein be using the term "call loan" to describe this form of loan.

The Loan and the Call Loan

Under the title-transfer theory of contract, a standard loan contract takes the following form: Party A agrees to transfer title to some amount of money today, known as the *principal*, to party B. In exchange, party B agrees to transfer some amount of money, greater than the principal, in the future. The difference between the principal and the amount of money transferred to party A in the future is known as the *interest* and the date in the future in which B transfers money to B is known as the *maturity date.* Here is an example of a loan contract under the title-transfer theory of contract: Jones and Smith set up a loan contract on January 1, 2020. On January 1, 2020, Jones transfers $100 to Smith for one year, making the *maturity date* January 1, 2021 with an interest rate of 10%. Upon agreeing to the contract, Smith is now bound to transfer $110 ($100 + 10% interest) to Jones on January 1, 2021. As long as both parties deliver the proper amount of money on the proper dates, then no fraud has occurred, and the terms of the contract are fulfilled.[7]

The call loan separates itself from the ordinary loan in only one way. While there may be a specified maturity date, the lender is able to ask for the principal to be transferred to them at any time. The following is an example of the call loan under the title-transfer theory of contract:

[7] The Rothbardian view of property and contract would posit that any interest rate is justifiable. However, we will set aside the question of just interest rates and usury for the purposes of this project.

Jones and Smith set up a call loan contract on January 1, 2020. On January 1, 2020, Jones transfers $100 to Smith for one year with a specified maturity date of January 1, 2021 and interest rate of 10%. However, Jones retains the right to *call* the loan at any time and have the principal amount, $100, transferred to him at any time. Now, on July 1, 2020, Jones calls the loan and has the $100 transferred to him immediately. Now, as long as Jones delivers $100 to Smith on January 1, 2020, and Smith delivers $100 to Jones on July 1, 2020, then no fraud has taken place and the terms of the deal are fulfilled.

The call loan can have different stipulations in the contract regarding what is to happen with the interest. For example, the contract may stipulate that in the case that the lender calls their loan before the maturity date, the lender is owed no interest, only the principal. In this case, all that is required from the borrower upon the lender calling their loan, is that they deliver the principal amount to the lender on the day it is called. The contract may stipulate, instead, that the lender is owed the interest that would have been received had the maturity date been set to the call-date, the date and which the lender called their loan. In the case of Smith and Jones above, this would mean that Smith would have to deliver $105 ($100 + 10%/2) to Jones on July 1, 2020, since six months had passed. But the contract may also stipulate that the lender is owed a half or a quarter of the interest they would have received. Contractors can decide any such stipulations in their contract regarding what is owed on the call date.[8] The key element of the call loan is that the lender can ask for the principal amount of money back at *any time*.

What does this mean regarding the transfer of title? The call loan has the special characteristic of giving the lender the right to demand the money lent at any time. As we will see,

[8] The contractors may, for example, decide that if the lender calls their loan on a day in which it is raining, they are owed half of their earned interest whereas if the lender calls their loan on an exclusively sunny day, they may only be entitled to a quarter of the accumulated interest.

some authors have argued that this amounts to the lender never giving up title to the money at all. This is an important consideration because if no transfer of title from lender to borrower occurs, then the borrower does not have the standard rights associated with unrestricted title, to use the money how they please, most importantly, the right to lend the money out. What I will argue in the following section is that in the case of the call loan, title is transferred on the first day of the contract from the lender to the borrower. This means that the borrower can do anything they want with the money provided only that they do not violate the property rights of others. Then, upon the earliest of either the calling of the loan or the maturity date, an amount of money equal to the principal amount is transferred from the borrower to the lender plus any interest that was stipulated in the contract. In this way, there are clear and distinct dates at which title to the money is transferred from the lender to the borrower and then from the borrower to the lender. Thus, the loan becomes *due* either at the earliest of the date the loan is called or its maturity date.

In his 2007 article, "Huerta de Soto's Case Against Fractional Reserves" claims that "[t]he common checking account is (at least to all appearances) a type of callable loan where the lender is the account-holder and the borrower is the bank" (2007). This means that when a depositor is making a bank deposit, they are making a call loan to the bank. This seems linguistically strange since we call a bank deposit a "deposit". However, as White points out, this is the way in which bank deposits *do* operate today under fractional-reserve regimes. Depositors are able to demand money that they "deposited" (or rather, lent) at any time while still giving license to banks to use the money how they please until that time when they do demand it. Below, I will explain how this conceptual understanding of the contract that is made between depositor and bank allows us to understand who and when each party gains or loses title to

money that is deposited and how it can overcome some important criticisms of fractional-reserve banking that are posited by the Rothbardians.

Is the Call Loan a Loan at All?

One criticism of the call loan made by the Rothbardians is that the call loan *must* be considered a deposit (a bailment) and not a loan since there needs to be immediate, guaranteed availability of the funds loaned for the lender to claim at any time. Thus, for the Rothbardians, a call loan does not represent a transfer of title from lender to borrower, but rather, the "lender" (or depositor) retains title to the item lent and the "borrower" (or depositum) has only the right to use the item lent (or deposited) insofar as it achieves the goal of safekeeping and protection. The reason for this, according to Block and Barnett, is that the call loan has no due date in which the borrower must return the borrowed funds to the lender. Again, as Block and Barnett write, "A deposits $10 in bank B on demand. This is not a time deposit, but rather a demand deposit. The length of "time" for this demand deposit is 0 years, 0 months, 0 weeks, 0 days, 0 minutes and 0 seconds" (2017, 54). Thus, for Block and Barnett, the call loan is due *immediately* effectively saying that the "lender" never lent their money out at all and thus the demand deposit does not constitute a loan. Therefore, any lending of money which was borrowed on a call loan would be equivalent to lending out money which was properly owed to a different party *today*. It is the equivalent to lending out money that belongs to someone else.

However, I will argue in this chapter, the call loan can be appropriately viewed as being owed to the lender *when they demand it*, and not, as Block and Barnett argue, immediately. Through this lens, I will show that it is possible to consider the call loan an unrestricted transfer of title to the piece of property lent from lender to borrower. This is followed by a transfer of title to that property from the borrower back to the lender upon the lender asking for the principal of

their loan back. If viewed in this way, the borrower of money on a call loan would have the right to use the property in any way they saw fit between the time the money was lent, and when it was asked to be returned by the lender. This would include the right to spend the money, destroy it, lend it out, or anything else that the borrower wishes, only insofar as they do not use it to violate the property rights of others.

Let us consider the difference between the *demand deposit* and the *time deposit*. The demand deposit, as stated above, allows the depositor to demand the principal deposited at any time. The time deposit, on the other hand, takes the form of the standard loan described above: one party deposits money and can only redeem it at a prespecified date in the future. As Barnett and Block state, "all time deposits, no matter how long the term to maturity at issuance, eventually reach maturity. Right before that point, they are still time deposits, but with exceedingly short time durations left until maturity" (2005, 67). The demand deposit, for Barnett and Block, then, is due *immediately* to the depositor. As Block writes in his 1988 essay, "Fractional Reserve Banking: An Interdisciplinary Perspective", "A demand deposit is just that: an amount of money placed with the bank which, according to the contract, the bank has agreed to pay back *on demand, forthwith, immediately*" (27). It should be noted that Block equates "on demand" (1988, 27), and "immediately" (1988, 27) i.e. that money that can be demanded by someone is the same as money that is owed to them immediately. "On demand" for Block means that the entire time that money is held by bankers, it is "due" to the depositor. From the second that the depositor makes the deposit, until the time of them actually demanding money deposited, the bank constantly owes the money to the depositor. Thus, for Block, there is no differentiation between what is due "when demanded" and what is due "now". For Block, a call loan which gives the lender the option to demand money lent at any time does not properly represent a loan

since money lent/deposited is at all times *due* to the lender/depositor. Thus, money lent by depositors in a demand deposit transfers title from depositor to depositum for zero time, i.e. not at all, and therefore does not constitute a loan.

It is this view which this project will aim to reject. Instead of considering demand deposits as being due *immediately*, I will argue that, completely in line with the Rothbardian view of property and the title-transfer theory of contract, the money lent to the bank can be viewed as due the instant that its return is demanded by the depositor. In this way, we can see that the call loan *does* involve the transfer of title of money deposited from depositor to depositum for a period of time. That period of time is the time between the deposit at the depositor demanding the money deposited. Thus, the call loan *can* properly represent a loan contract in which title to present goods, money deposited, can be exchanged for interest on the money lent.

The call loan, as I have previously stated, can take on various forms and stipulations regarding a maturity date, interest earned, and penalties for calling the loan before its maturity date. Below, I will sketch out a call loan which most closely resembles that of a standard demand deposit we are familiar with today. The following is a description of that call loan under the title-transfer theory of contract:

The lender lends some amount of money, the principal, to the borrower. The instant that this contract is initiated, unrestricted title to the principal is transferred from the lender to the borrower. Interest may be earned on the money lent and is compounded at standard periodic intervals. Interest earned is added to the principle as it compounds. The principal plus earned interest is the *balance*. Title to the balance remains with the borrower. Title to any portion of the

balance is transferred from the borrower to the lender upon the lender demanding it, or "calling" the loan.

The important characteristic of this account of the call loan, is that title to money is transferred *conditionally* from the borrower to the lender upon the lender calling the loan. I will show that conditional transfer of title is perfectly permissible under the title-transfer theory of contract. As I will show, there are numerous instances of ordinary contracts which involve the transfer of title which is conditional upon some event occurring. The first example I offer is that of fire insurance. The purchase of fire insurance involves a transfer of title to money from the insured to the insurer each month known as a premium. In exchange for this payment, insurance companies agree that, in the event of a fire breaking out in the policy-holder's house, the insurance company will pay to have the damages repaired or to replace items that cannot be repaired up to some maximum monetary amount. This transfer of title, however, is in exchange for the future *conditional* transfer of title to money in the future. That condition is that the insured's house actually catches on fire. Consider the following example: a consumer purchases fire $1,000,000 in fire insurance, agreeing to pay $500 every month as a premium. The terms of the contract are as such: title to $500 is transferred from the consumer to the insurance company at the end of each month and, *if* the consumer's house catches on fire, title to $1,000,000 is transferred from the insurance company to the consumer. So, until an actual fire occurs, title to the $1,000,000 is properly held by the insurance company. Since a fire can occur at any time, would we say that the consumer had title to the $1,000,000 *prior* to the fire occurring? No, it is only *upon* the actual occurrence of a fire that the title to that $1,000,000 is transferred to consumer. And here we can see a clear-cut case in which it is acceptable, under the title-transfer theory of contract to have transfers of title which are conditional upon some event occurring.

One may object that this account of conditional transfers of title differ from the call loan since it is not the actions of human actors who are privy to the contract which determines when title is transferred. But there are other instances in which we can see that human actions can be seen as permissible conditions for the transfer of title to property. Rothbard endorsed such a possibility in his example of an actor who agrees to show up to a theatre on a particular date (1982/2002, 137-138). In order to protect the theatre owner in the event that the actor does not arrive, the actor agrees to pay a penal bond which stipulates that the actor must transfer $1,000,000 to the theatre owner upon the actor not appearing at the theatre on the specified date. In this case, title to $1,000,000 is transferred from the actor to the theatre owner upon the actor using his own physical body to locate himself in any place which is *not* the theatre. It is only then that the theatre owner gains title to the agreed upon $1,000,000. Again, would we say that *prior* to the actor not arriving at the theatre, the theatre owner had title to the $1,000,000? No, again, it is only *upon* the actor being somewhere which is not the theatre that the theatre owner gains title to the $1,000,000. Thus, there is no reason to reject the possibility of conditional transfers of title to property that depend upon the actions of human actors privy to the contract.

However, one might argue further that the call loan is different in that one party can have title to property transferred to themselves by their actions alone. In the case of the actor and the theatre, the actor's actions could only *relieve* him of title to property, it could not gain him title to property. But is there any reason to believe that contracts in which one can *gain* title to property from their own actions alone? Consider the following example: A farmer who is plagued by gophers ruining their crops agrees to pay a local hunter to exterminate the gophers. Since neither the farmer nor the hunter are sure of the scale of the problem they come up with the following solution: The farmer will pay the hunter for 5¢ for every gopher the hunter kills. They enter into

this contract in which title to the 5¢ is conditional upon the hunter's actions of killing the gopher. There is no reason why such a contract could not be viewed as legitimate and that the hunter is legitimately owed 5¢ every time he kills a gopher.[9] Once again, since the hunter has the ability to gain title to property, the 5¢, by his own actions, should we suppose that the hunter had title to the 5¢ *prior* to his actually killing of the gopher? Again, no, it was only *upon* the killing of the gopher, an action of the hunter, that the farmer owed the 5¢ to the hunter. It was only *upon* the killing of the gopher that the hunter gained title to the 5¢. Until that point, title to the 5¢ was still properly held by the farmer.

The same case can be applied to the case of the call loan. Title *can* transfer upon the actions of the lender calling their loan. It is not necessarily the case that because some action taken by the lender *can* transfer title to money to himself that he is the owner of the money *prior* to that action being taken. Thus, in the case of the call loan, title can be said to be held by the borrower *up until* the lender calls their loan and title to the money is transferred *upon* the lender doing so. Thus, money does not become 'due' to the lender until the lender asks for it.

Contrast this to Block's view of the call loan which holds that since the lender can gain title to the money by simply asking, then title to the money is held by the lender the entire time. But is there good reason to accept Block's view? Just as in the case of the gopher hunter who must kill gophers in order to gain title to money, the lender must similarly commit some action in order to have title to the money transferred to them. The lender must use their voice, or pen and paper, or email to ask for their money back. Or, they must write and sign a cheque. Or, they must

[9] There may be a limit upon the number of gophers that the farmer must pay for. This limit may appear in the original contract between the farmer and the hunter such as a clause that states the limit the farmer will pay that particular hunter. For example, "I will pay 5¢ for every gopher up to 100 gophers". Or, it may appear as a general clause of the offer presented to the public for hunting the gophers. "While supplies last" disclaimers for online orders are an example of just such limiting qualifications on an offer to exchange goods in the future.

swipe their debit card to ask to have a part of the balance transferred to a merchant. In any case, the transfer of title from to money from the borrower of the call loan to the lender is *conditional* upon some action of the lender.

There is one more difference between the hunter example and the call loan which I will here address. In the example of the hunter and the farmer, it could be the case that there may be a built-in, clause in the contract which would allow the farmer to revoke the open offer to pay the farmer 5¢ for every gopher he has killed. However, in the case of the call loan, the borrower has no choice to revoke the conditional transfer of title to money to the lender. But this is not a problem for the title-transfer theory of contract. There are many instances in which we could see a conditional transfer of title as non-revocable by either party. Imagine, for example, that a construction company is hired by a university to build a new engineering building for $50,000 on September 1, 2020. In this case, title to $50,000 is transferred to the construction company upon the completion of the building. However, imagine that the university backs out on August 31 and says that they no longer want to pay the money and no longer want the building built. Should the university be considered liable for the $50,000? Unless there was a specific stipulation in the contract which allowed for this cancellation, then the university is still "on the hook" for the money. In this case, there is an *irrevocable* conditional transfer of title to $50,000 from the university to the construction company. The university must pay the money.

Finally, this account of the bank deposit as a call loan makes a particular claim about which pieces of property title is transferred at which time. When the lender lends money on a call loan they do not retain title to that money at all. There is no sense in which title to those particular pieces of paper money lent is still held by the lender. Instead, unrestricted title to that money is transferred from the lender to the borrower. The borrower, thus, has the right to so

whatever they choose to do with the money as long as they don't infringe on the rights of others with that money. This, again, includes the right to exchange the money, destroy the money, throw it into the ocean, write your mother a nice note or, most importantly and as will be explained in detail below, lend the money out.

In one important way, this account of title to money in the case of the call-loan is one that is necessary for the creation of contracts which concern the change of possession of fungible goods: The depositum or borrower must be given the right to distribute the deposited or lent goods to others. In the case of the regular deposit, a deposit of non-fungible, specific goods, one can transfer restricted title from the depositor to the depositum; the depositum does not gain full title associated with unrestricted title to the specific piece of property deposited. Instead, they gain only the right to use the property in ways which aid in the safeguarding and protection of that property. Take the above television example. The depositum has the right to move the television between warehouses but he does not have the right to use the television to watch football during the week. In this case, all other rights are withheld by the depositor. The depositor still denies the right to anyone to sell his television, use it to watch football, or anything else. He has transferred the right to use the television in ways which safeguard and protect it to the depositum. This exchange of title becomes more problematic when we are faced with the deposit of fungible goods. Consider the example of an irregular deposit of oil. Remember, that in the case of an irregular deposit "the goods deposited become indiscernibly mixed with others of the same type and quality" (de Soto, 1998/2006, 5).[10] In this case, it's not clear that the depositor can restrict the right of the depositum to use the oil in the same way he

[10] The concerns raised in this paragraph and the next are rendered moot if goods, fungible or otherwise, are not mixed with goods from other depositors

can with the deposit television. In this case, the depositum has mixed the oil from each depositor together. Thus, when a depositor asks to receive their deposited amount of oil, the depositum must retrieve that amount from the community pot. Since the oil has been indiscernibly mixed, there is no way to tell which oil molecules were deposited by *this* depositor and which were deposited by others. If each depositor withheld the right to give their oil out to other people, then this practice would be wholly illegitimate under the title-transfer theory of contract since the deposit would inevitably be distributing molecules of oil which he had no right to distribute since the right to do so was withheld by the original depositors. Thus, when depositors deposit fungible goods which are to become indiscernibly mixed with fungible goods from other depositors, they *must* give the right to distribute their deposited goods to others.

One may object that my analysis of fungible goods cannot be correct since it proves far too much. It would seem that such an analysis would make it impossible to construct deposit contracts of fungible goods in which the depositum would be held to the requirement of 100% reserves of those fungible goods i.e. depositors could never create a contract in which they would be guaranteed that the depositum would not lend out some of the goods held. But this is not the case at all. Patrons could still solicit 100% reserve depositums acting as warehouses for the safeguarding of fungible goods. All that would be necessary would be that the restricted title to the fungible good (which now includes the right to safeguard the property, protect the property, and distribute the goods to others) would transfer from the depositor to the depositum *on the condition* that the depositum did not take goods from the community pot themselves, lend out any fungible goods in the community pot or create receipts for fungible goods in excess of the amount held in the community pot. In this way, depositums under such contractual restrictions would lose the ability to operate at all since the restricted title which gives the depositor the right

to safeguard and distribute the goods (uses of the goods which would be essential to the operation of the business) would be stripped upon the misuse of any of the goods in their possession. Thus, for those who want to solicit only 100% reserve depositums which still having the conveniences and lower costs associated with indistinguishably mixing fungible goods from different depositors, there can still be contractual guarantees of 100% reserve operations.

Overcoming the Double-Title to Property Problem

Now, I will turn to the problem of double-title to property which Rothbardians have claimed occurs when fractional-reserve banking is practiced. As mentioned in the previous chapter, under a substantive view of property, there is no way in which two people could ever legitimately come to have unrestricted title to the same piece of property. If two people have title to a particular resource then they have the right to do incompatible things with that resource. Thus, contracts under a substantive view of property must never create two titles to the same resource. The point made by the Rothbardians is an important one which should be taken by those who view ownership as conferring rights over the use of some resource by individuals.[11] If two people have full, unrestricted title to some specific piece of property, then there is a conflict of rights regarding the use of that property. Both owners have the right to simultaneously use the same piece of property for incompatible (in that they *physically* cannot be performed simultaneously) purposes, say, driving the car east and driving the car west at the same time. Thus, if fractional-reserve banking really does require the creation of multiple titles to the same piece of property then it must be considered illegitimate.

[11] See Block, Walter. 2008. "The Danger of Fractional-Reserve Banking." LewRockwell.com. November 1 in which Bryan Caplan erroneously refuses to recognize the problem of conflicting rights that comes with multiple titles to the same piece of property.

The merits of this view are made even clearer in the case of obviously stolen goods. If a thief steals a bicycle from A and attempts to sell the bicycle to B for $100, the thief is guilty of two crimes. First, he is guilty of theft from A, but he has also committed fraud against B since he has attempted to sell B title to property which the thief has no right to sell. That right is still held by A. In attempting to sell title which he did not properly hold, the thief has implicitly stolen $100 from B. It is because title to the bicycle was *not* held by the thief that he has illegitimately attempted to sell title which did not exist (i.e. the thief created a title to the bicycle out of thin air which he gave to B) and thus created double-title to the same piece of property, one title held by A and one by B.[12] However, as Block and Barnett point out, this would be the case regardless of the "voluntary" nature of the contract. Suppose A said to a bicycle broker that he will allow him to lend out his bicycle for B to use. However, A would like to retain unrestricted title to the bicycle. How could such a contract be constructed? It could not since any lending of the bicycle to B would involve creating conflicting rights over the use of the bicycle. If B was sold the right to use the bicycle every weekday and A held unrestricted title to the bicycle, then A would have the right to use the bicycle in Toronto on Wednesday and B would have the right to use the bicycle in Dubai on Wednesday; two incompatible uses. Suppose that one Wednesday while B was riding the bicycle A took the bicycle from B and started riding it himself. As B protests, A might respond, "But I never gave up title to this bicycle, but merely *also* gave you title to it". But such a response creates obvious conflict: both A and B have the "right" to use the bicycle incompatibly. As mentioned in the previous chapter, the Rothbardian view of property aims to eliminate such conflicts by allocating use-rights over resources in a way in which no two (or

[12] For an answer as to who should receive title in cases of fraudulently sold stolen property see Rothbard, Murray. 1982/2002. *The Ethics of Liberty.* New York: New York University Press. p. 57-60 in which Rothbard argues that title to the bicycle should revert to A. Rothbard also argues that while this may seem unfair to innocent buyers, this can be mitigated with the purchase of title insurance.

more) people could ever conflict over the use of that resource. It should be obvious that whatever contract A created with the broker that created this double-title to the bicycle illegitimate, regardless of the fact that A and the broker may have voluntarily agreed to it, since it would create conflicting rights to the use of the bicycle.

Now that I have argued that the double-title to property problem is a real one which should be taken seriously by those who support the disaggregative bundle of rights view of property, I will show how my account of the bank deposit as a call loan never creates a situation in which such a problem arises within the practice of fractional-reserve banking. Now, it may be the case that *de jure* legal interpretations of bank deposits still create a double-title to property problem. However, in this project, I will not argue that bank deposit contracts as presently constituted do not create this problem. Instead, I will argue that *if* bank deposits were to be viewed as a call loan, then no such problem would arise.

According to the Rothbardians, there are three ways in which double-title to property can emerge in a fractional-reserve banking system. As Rothbard writes, "[the banker] may, for example, simply take the gold or cash out the vault and live it up, spending money on mansions or yachts" (1994/2015, 39). In this case, according to the bailment view of bank deposits, money held in vaults, to which title is held by depositors, is being taken by the banker giving himself title to the money, which creates two titles to the money in the vaults; one held my the banker and one held by the depositors. The second way in which double-title to property can occur is if money held by banks is lent out directly to borrowers. Again, according to the bailment view, title to money held by the banks belongs to depositors. When the bankers lend out the money to borrowers, they are creating they are giving title to that money to the borrowers. In this case, there is a second title to money in the vaults which is not held by the banker but, instead, is held

by the borrowers. Now, both the depositors and the borrowers have title to the money in the vaults creating the double-title to property problem. The final way in which double-title to property can occur through fractional-reserve banking is by the creation of deposit certificate deposits in excess of the amount of money actually held by the bank. In this case, the banker creates certificate deposits which he sells to borrowers in exchange for interest. Borrowers could exchange these certificate deposits with others for other goods and services and those who bought these deposit certificates could come to the bank that issued them and present them for the equivalent amount of money in the vaults. In this case, deposit certificates, according to the bailment view of bank deposits, represent title to the money held in the vaults. This means that depositors have title to the money held in the vault and borrowers holding deposit certificates *also* have title to the money in the vault. Suppose that a bank holds $1,000,000 which comes from exactly $1,000,000 of deposits from depositors. This means that the bank has issued $1,000,000 in deposit certificates to those depositors. Suppose that the bank creates $100,000 in "new" deposit certificates and lending them out to borrowers at some rate of interest. Since, in the bailment view, a deposit certificate represents title to money held by the bank, there now exists $1,100,000 worth of "titles" to the money in the bank, but only $1,000,000 actually exists in the bank. At this point, $100,000 of the money in the bank has *two* title holders and a double-title to property problem presents itself once again. What is most important about all of these accounts is that title to money deposited is never transferred from the depositor to the banker, but instead, remains with the depositor the entire time. As I have described above, if viewed as a call loan, the bank deposit *does* involve a transfer of title from the lender to the borrower (in this case, in this case from the depositor to the banker). Thus, when viewed in this way, we will see a

very different story emerge in all three cases in which no double-title to property ever presents itself.

As I have explained above, in the case of the call loan, the lender transfers title to the property lent to the borrower once the contract is initiated. Title to an equivalent amount of that property is then transferred from the borrower to the lender when the lender demands it or "calls the loan". In the case of the bank deposit, the depositor takes the role of the lender and the banker takes the role of the borrower. Thus, when the depositor makes a bank deposit, they are transferring title to the money deposited from themselves to the banker. Title to an equivalent amount of money is transferred to the depositor upon demanding it. Therefore, the banker only owes money to the depositor *once* it is demanded by the depositor. In the following illustrations, it is assumed that both the bank and the depositor are aware that they have entered into a call loan.

First, consider the case of the banker who "lives it up" with the money in the bank. Suppose that a depositor deposits $100 in the bank and the banker takes that money and turns around and uses the money deposited purchase groceries. Since title to the money is held exclusively by the banker at this point (as the depositor has not yet demanded their money back), this is a completely legitimate use of the money. The loan only becomes due upon the banker calling the loan (i.e. demanding some amount of money from their balance). When this *does* occur, what happens is that title to the amount of money demanded by the depositor is transferred from the banker to the depositor. Thus, as long as the banker has title to $100 at all, (not necessarily the original $100 deposited) he is able to deliver the money that has become due. In this case, there was no time in which there were two titles to the $100. Title was given to the

banker upon the initiation of the bank deposit and title to a *different* $100 was transferred to the depositor when he called the loan.

The second case, in which the banker lends out the deposited money to a borrower follows a similar narrative. Suppose, again, that a depositor deposits $100 in the bank. This time, however, the banker does not take the money and spend it on his own consumption. Instead, he lends the money out to a borrower at an interest rate. What has occurred here with regards to title to the money originally deposited? The beginning of the story is the same as previously. When the depositor deposited their money, they transferred title to that money to the banker. The banker, then, has the right to do with that money as he pleases. Then, when lending out the money to the borrower, title to that $100 is transferred from the banker to the borrower. Now, the borrower has the right to use the money how he pleases since he has title to the money, not the banker. In this case, there are not two titles to the money but one. Title to the original $100 deposited is now held exclusively by the borrower. This is because when the depositor deposited his money in the bank, he *gave up title* to that $100, knowing that he would gain title to a different $100 from the banker when he demanded it. The banker, here, also gave up title to the $100 when he lent the money to the borrower. He transferred title to that $100 knowing that he would earn interest from the borrower and title to a different $100 at some point in the future, depending on their credit arrangement.[13] Now, when the depositor calls their loan from the bank, demanding the money form their balance, the banker now transfers title to $100 of his money to the depositor. As was the case above, this is a *different* $100 than the $100 that was deposited originally. This is because, again, the depositor gave up title to that original $100 knowing that

[13] It could be the case that this would operate as *another* call loan, but this arrangement between a borrower from a bank and a bank have not been historically popular.

he would receive a *different* $100 in the future from the banker. Again, in this case we have instance in which there are two titles to the same piece of property at any point. When the deposit contract is initiated, title to the money is transferred from the depositor to the banker. Then, when the banker lends out the money, title to the money is transferred from the banker to the borrower. That is all. At that point there are no title claims on the money beyond the borrower.

The third scenario, in which bankers create new deposit certificates and give them to borrowers in exchange for interest, is the most complicated. However, viewed as a system of call loans, we can see, once again, how the practice of fractional-reserve banking to the issuance of excess deposit certificates creates no double-title to property. In the third scenario, the beginning of the story is the same. The depositor deposits $100 in the bank. Again, title to that $100 is transferred from the depositor to the banker. Now, instead of lending out the money directly to the borrower, the banker creates a different form of contract. In this case, the banker, instead, creates more deposit certificates that are to be held, not by depositors, but by borrowers. As I have iterated above, in the call loan view of the bank deposit, deposit certificates do not represent *title* to money held in the bank. Rather, they give the holder of the deposit certificate the right to demand the equivalent amount of money held by the bank as is stated by the deposit certificate. This is true whether deposit certificates are held by depositors of borrowers.[14] Title to the money in the bank is transferred *the moment* that the holder of the deposit certificate demands the money. Assume that the banker issues $100 worth of deposit certificates to the borrower. Who holds title to the original $100 deposited? Since deposit certificates do not represent title to the

[14] It should be reiterated that deposit certificates can and historically have circulated between holders as a medium of exchange which was easier to transport than the actual money (which had often been precious metals) which were usually heavy and difficult to divide. Who holds the deposit certificate is, therefore, of no value in determining what it contractually entitles the holder to.

property held in the bank, neither the depositor, nor the borrower, can be said to have title to money in the bank as both of them hold only deposit certificates. In this case, the banker has title to the $100 which was transferred to him upon the initiation of the deposit contract. No other transfer of title to took place. Now, when either the depositor or the borrower demand money from the bank, title to some $100 (although, again, not necessarily the original $100 deposited) is transferred from the banker to the depositor or borrower that demands it. If both the depositor and borrower demand the money on the same day, this too does not create a double-title to the money. Instead, two separate $100s are transferred from the stock of money that the banker has title to.[15] Again, in this scenario there is no case in which title to the same money is held by two people. Title to money deposited is held exclusively by the banker. Title to a *different* $100 is transferred from the banker to either the depositor or the borrower up their demanding it.

Conclusion

As I have shown above, when viewed as a call loan, not a bailment, the supposed problem of the double-title to property does not arise. Instead, through the initiation of call loan contracts and the creation of deposit certificates giving the holder the right to call upon a loan, fractional-reserve banking can take place without once creating one piece of property with title to it being held by more than one person. In this way, the title-transfer theory of contract can allow for the practice of fractional-reserve banking through a series of call loans which let depositors act as they do today, receiving interest on money deposited and bankers to act the way they do today, earning interest on money lent or deposit certificates created. The practice of fractional-

[15] The obvious objection, that this is not possible when the banker does not have title to $200 to his name, will be dealt with in the following chapter.

reserve banking, as we know today, viewed in this way, can satisfy the Rothbardians in never producing the double-title to property problem.

Chapter 3 – Practical Implications

In the second chapter, we saw that the bank deposit can be properly be viewed as a call loan. This means that the bank deposit is a loan contract in which title to the money is transferred from the depositor to the bank not a bailment contract in which title to the money is retained by the depositor. This view regards the deposit of money with a bank to be a transfer of title to that money from the depositor to the banker. Once the depositor "calls" their loan, demanding money from the bank, title to the amount of money deposited transfers from the banker to the depositor. Thus, the money deposited is not "due" to the depositor until they actually demand it. In this chapter we will explore some of the practical implications of this account of the bank deposit. Specifically, we are going to explore how this affects bankruptcy proceedings, the appropriate reserve ratios for fractional-reserve banks, and how contracts stipulating the agreement to enter into a call loan might look.

Bankruptcy

What the previous chapter has argued is that when a depositor makes a deposit with a bank this should be viewed as the creation of a call loan in which the depositor lends money to the bank which can be called by that depositor at any time. Thus, bank deposits represent good-faith loans between depositor and the bank. In the same way that a lender is owed money at the date of maturity of their loan, depositors lending on a call loan basis are owed money when they demand it. Thus, depositors should be treated like any other creditor in a bankruptcy situation; depositors, like other lenders must incur the risk of the borrower not being able to repay their loans. What the previous chapter has shown is that the actions of bankers who operate with the risk of becoming insolvent, as all businesses do, have acted no more fraudulently than other

businesses who are unable to repay their loans. When bankers are unable to repay depositors, it is the same as any other debtor who, through entrepreneurial error, is unable to pay their loans rather than, as Rothbard would contend, "the uncovering of a criminal act" (Rothbard, 1994/2015, 41).

Thus, the process for deciding which creditors are to receive money and how much is no different than the process for deciding how remaining assets should be split between creditors in any instance of bankruptcy.[16] In the case of the limited liability companies, in which shareholders of corporations cannot be pursued for their personal assets and that creditors are only entitled to the assets of the corporation,[17] the creditors may take all remaining assets of the company up until the amount they are owed. However, since the company has declared bankruptcy, not every creditor will be able to receive everything they have owed. There may be some creditors who have gained a contractual privilege in being paid out first if the company did become bankrupt. For example, it may be that lender A lends to company B only on the condition that in the case of bankruptcy, their loan is repaid to them before any other creditors have the right to claim money owed to them. Or, creditors may be have to take a share of remaining company assets in proportion to the amount of money they lent. For example, if a

[16] See Rothbard, Murray. 1982/2002. *The Ethics of Liberty.* New York: New York University Press. p. 144 Rothbard argued that bankruptcy was not a legitimate option under the title-transfer theory of contracts. He argued that "if the defaulting debtor is not able to pay, he has *still* stolen the property of the creditor by not making his agreed upon delivery of the creditor's property" and that debtors could only be relieved of their debts by forgiveness by their creditors.

[17] See Rothbard, Murray. 1970/2009. *Power & Market.* Auburn: Ludwig von Mises Institute. p. 1144, in which Rothbard argues that while bankruptcy is an illegitimate "out" for debtors to break free from their debts, limited liability privileges could not be legitimately granted by governments but could be stipulated in contracts between companies and their creditors:

> [C]orporations are not at all monopolistic privileges; they are free associations of individuals pooling their capital. On the purely free market, such men would simply announce to their creditors that their liability is limited to the capital specifically invested in the corporation, and that beyond this their personal funds are not liable for debts, as they would be under a partnership arrangement. It then rests with the sellers and lenders to this corporation to decide whether or not they will transact business with it. If they do, then they proceed at their own risk.

company had $1,000,000 in outstanding debts, $500,000 payable to A, $300,000 payable to B, and $200,000 payable to C, and when the company went bankrupt it had remaining assets of $500,000, then A would receive $250,000, B would receive $150,000, and C would receive $100,000. Regardless of one's preference for how limited liability companies should proceed in paying their creditors during bankruptcy proceedings, the same can be applied to banks who have become insolvent.

The case of the unlimited liability company is slightly different. Creditors would not only have a right to the assets of the company, but also the assets of its shareholders. Imagine the same scenario above with the company with $1,000,000 in outstanding debts. Creditors who could only secure half of what is owed to them by taking from the remaining company assets, could now take from the assets of the individuals owned the company. In this case, A can receive up to the full $500,000 they are owed, B the full $300,000 they are owed, and C the full $200,000, taking half from the remaining company assets and the rest from the assets of the shareholders.[18] Unlimited liability banks would be no different. Depositors who had lent money to banks are still owed the money that they lent. Thus, if there is no limited liability protection in place, the depositors should be free to take from the shareholders who owe the depositors the balances of their accounts. Once again, bankruptcy proceedings for banks need be no different than for other companies and depositors should be granted the rights and privileges of any other creditor.

[18] If the shareholders themselves do not have sufficient funds to pay the creditors, they too must declare bankruptcy.

Responsibility in Treasury Management

Even if we accept my argument that fractional-reserve banking can be viewed as legitimate under the title-transfer theory of contract, there still remains a question of the "right" reserve ratio for fractional-reserve banks. The great problem with fractional-reserve banking is that it creates the possibility for the bank to "run out" of money and not be able to pay back everyone who demands money. This can occur at any time if the bank does not have proper reserve ratios but, historically, the greatest problems with banks being unable to pay off their deposit certificates have come in the form of bank runs. During a bank run, depositors, en masse, demand to be paid their balances in their accounts with banks. Once people hear that the bank is having trouble paying a few depositors, there is a storm of depositors that rush to retrieve what they can from the bank as they have lost faith in the bank's solvency. When the depositors arrive, since the bank does not have cash equal to the amount of deposit certificates in circulation, the bank cannot pay everyone who demands their money.

While this problem of determining the proper reserve ratio for a bank to keep is full of difficulties there are prima facie reasons to believe that *some* minimum reserve ratio would be necessary for the long-term continued operations of any fractional-reserve bank. If a bank kept no cash on hand (a reserve ratio of 0%), then it would be bankrupted upon any depositor demanding a single penny. But even a reserve ratio just above 0% does not do much more to deter this outcome. If a bank held $1 is cash and had $100,000 in deposit certificates circulating (a reserve ratio of 0.001%), then a depositor demanding $2 (0.002% of deposit certificates) would quickly bankrupt the bank as well. So, based on profitable, never mind ethical, business

practices, it would indeed be necessary that banks keep at least some percentage of their deposit certificate claims in cash on hand.[19]

In the past in the U.S. minimum reserve ratios have been legally enforced upon banks. Until March of 2020 there was a minimum reserve ratio of 3% for banks with $16 million to $122.3 million in net transaction deposits and 10% for banks with net transaction deposits in excess of $122.3 million. In March of 2020 these minimum reserve ratios were moved to 0% for all banks of any size. The Federal Reserve explains that the importance of legally mandated minimum reserve ratios was as a part of U.S. monetary policy. They explain that that minimum reserve ratios created "a stable demand for reserves" (2020). A stable demand for reserves, in turn, stabilizes the demand to hold money (since banks make up a large portion of cash holdings in the U.S., making it easier to predict the efficacy of monetary policy changes, holding one variable closer to constant. Thus, the Federal Reserve's reasons for legally mandating a minimum reserve ratio was not to protect creditors from banks over-expanding credit and risking not being able to pay depositors, but derived its need from a monetary policy perspective. Thus, it seems that these ratios do not represent ethical guidelines but rather economic ones which, as they historically have, can be changed to meet the needs of U.S. monetary policy.

So, what reserve ratio should banks keep? The problem posed to the banker is not any different than the problem posed to any entrepreneur who must deal with probabilistic reasoning. In terms of profit-maximizing business practices, there are many instances in which entrepreneurs must deal with probabilistic reasoning. The store owner who must decide how

[19] With the existence of a central bank and publicly funded deposit insurance the problem becomes more difficult as central banks can always act as a lender of last resort printing money if necessary to lend to banks to use to pay off depositors who come to redeem their deposits and thus the problems created by a central bank or the Federal Deposit Insurance Corporation are set aside here.

much of a product to order. On one hand, if they order too much, they will unnecessarily take up shelf space, reducing the amount of space they can use to hold other products. On the other hand, if they order too little, they may have unsatisfied customers or may have to resort to selling other products with a lower margin. In this case, the entrepreneur owner of the store must decide how much of that product to order based on the probability that come number of customers will purchase it. Banks are similarly tasked with operating under probabilistic reasoning. They must consider the likelihood that there will be demands for money from depositors in any given day and hold the appropriate amount of cash. If banks hold too much cash, they lose out on potential interest they could have gained by lending out the money. Or, if they have too little cash, they risk being unable to pay depositors when they demand money, effectively bankrupting the bank. Just like in the case of the store owner, the bank must use probabilistic reasoning to determine how much cash they should keep on hand. Making the incorrect choice will come at a detriment to the overall profitability of the venture.

One difference between deciding how much of a product to keep and how much cash to keep, for a business, is that that cash can often be owed to third parties at a future date. Thus, it is not only the shareholders of the company that are affected by treasury management but third parties who will, in the future, have title to money held by the company today. Consider the case of a small business that takes out a loan of $100,000 due in one year at an interest rate of 10% to purchase capital equipment to start their company. Upon purchasing the equipment, the company will not have the $110,000 that will be due to the lender in a year. In order to properly manage their cash assets, this company will have to take into account the probability of achieving different amounts of future revenue while managing their company if they’re going to pay off the loan that is due in a year. Imagine, for example, that the company had $200,000 in cash assets

the day before the loan became due. And suppose for the last year, they had made an average of $1,000 in revenue and received receivables every day. Using probabilistic reasoning, they could conclude that they would not be able to pay off their loan as expected if they were to make a purchase of $150,000 that day since it is *likely* that they will only gain $1,000 in cash that day which would only give them $51,000, far less than is necessary for paying off their loan.

The same can be said with bankers with one great exception: they do not know how much money will come due each day. Recall that in the call loan account of bank deposits, money held by the bank is only owed to the depositor upon them demanding the money. So, if no depositors demand money in a day, then nothing is due. But, if every depositor demands their entire balance in a day, then all bank deposits become due in one day. If this were to occur with a fractional-reserve bank it would be guaranteed that the bank could not pay off all the loans that have become due.

Thus, the call loan creates a special problem for proper treasury management practices. Those who hold money which was lent to them on a call loan cannot be sure when their loan will come due since it can be called at any time. But, once again, business which hold call loans can still use probabilistic reasoning to determine how much cash they should have on hand on any given day. In fact, we see this sort of treasury management, in which a certain amount of cash is held based on the probability of come event occurring, in the insurance industry. Insurance companies do not hold enough money pay off all their policies at once. In fact, if they were forced to, insurance would become virtually useless. Consider a mock example of Rothbard Insurance Company who provides fire insurance. Suppose their only product is $1,000,000 worth of fire insurance which they sell to multiple consumers. If there were a rule in place that forced Rothbard Insurance Company to keep enough cash on hand to pay off every policy should a fire

occur, then for every insurance policy it sold, it would have to have $1,000,000 in cash on hand. How would they fund this? Presumably by charging $1,000,000 from each consumer who purchases the insurance up front. But if this were the way they were forced to operate, then consumers wouldn't purchase the insurance at all since it would just be easier to hold the $1,000,000 themselves instead of giving it to the insurance company, only for them to turn around and give it right back if a fire occurred. Insurance companies, who are not held to this standard in Canada or the U.S. are, instead, able to charge small premiums to policy holders who, collectively, give enough cash to the insurance company to pay off the few policies that actually become owed to policy owner when, say, a fire occurs. How much cash is necessary for the insurance companies to hold? Well that is determined by probability of a fire actually occurring within a period. If the Rothbard company has 100 house-fire insurance policies out, each with a value of $1,000,000.[20] This means that if all 100 insured houses burned down today, it would cost them $100,000,000. But it's not at all likely that all insured houses will burn down today. Suppose that of all houses insured by the Rothbard Insurance Company, it is found that 10% are likely to have a fire in the next year. Then, the Rothbard Insurance Company should hold *at least* $10,000,000 in cash so that they are able to pay off any policies that become due. Of course, there will also be variations on this and in some years 12% of the houses will burn down and in others it will be 9%. So, in order to make sure that they have enough cash on hand, the insurance companies will want to keep enough cash on hand so that they do not go bankrupt. But, once again, they are also penalized for having too much cash on hand since they will lose out on potential investments that can be made with the cash they hold. Such judgements as to the

[20] For simplicity we will assume that either a house burns down and costs exactly $1,000,000 to repair, or it does not burn down at all.

potential variance between average insurance claims in a period and the amount of claims made in any given year can be determined by actuaries and other statistical analysts.

Fractional-reserve banks can make similar judgements about how much cash to have on hand on any given day. Instead of looking at the probability of a fire occurring they must consider the probability of a depositor demanding money, but the same logic can be applied. Banks can determine the average amount of money that is demanded by depositors in a day less the average amount of money deposited in a day and hold this amount of money as a minimum. Then, knowing that there will be daily variance, hold a certain amount more cash as will be necessary to ensure that they are always able to pay depositors when they demand money.

The fractional-reserve bank has to take an extra consideration into account that the insurance companies do not: the possibility of a bank run. As mentioned above, in the case of a bank run, depositors lose confidence in the ability of a bank to pay its depositors. Then, depositors, en masse, arrive at the bank to collect their balances. This is sure to lead to bankruptcy as fractional-reserve banks cannot withstand every depositor demanding their money. No such problem presents itself with insurance since if policy holders were to lose confidence in the insurance company's ability to pay off policies, they could not just begin setting their own houses on fire.

Some Rothbardians have taken this risk for banks as evidence that banks cannot long operate under a fractional-reserve regime. In his treatise on economics, *Human Action,* Ludwig von Mises argues that "The confidence which a bank and the money-substitutes it has issued enjoy is indivisible. It is either present with all its clients or it vanishes entirely. If some of the clients lose confidence, the rest of them lose it too" (1949/1966, 439) and concludes that fractional-reserve banks "must go bankrupt as soon as doubts arise concerning its perfect

trustworthiness and solvency" (1946/1966, 447). Rothbard echoes this idea in his 1985 article, "Bank Runs and Water Shortages", asking, "in what sense is a bank "sound" when one whisper of doom, one faltering of public confidence, should quickly bring the bank down? In what other industry does a mere rumor or frisson of doubt swiftly bring down a mighty and seemingly solid firm?" (3). Though it is perhaps hyperbole on the parts of Mises and Rothbard, their claim that some depositors losing confidence in a Bank's ability to pay depositors when they demand money is unfounded. The existence of Rothbardians who deposit money with fractional-reserve banks is a clear counter example. There are "whispers of doom" about the inability for banks to repay depositors among Rothbardians but banks have not collapsed because of it. In the winter of 2018, I was convinced of the Rothbardian view that fractional-reserve banking was inherently fraudulent. I told all my friends, family, and colleagues, "Get your money out of banks! They don't have it and can't repay you!" But this did not lead to a collapse of Toronto Dominion Canada Trust bank. Therefore, the idea that any breach of trust in a bank from some of its depositors must necessarily lead to the insolvency of that bank is not true.

While banks can become quickly insolvent in the case of a bank run, this risk is something that must be mitigated by fractional-reserve banks just as any other entrepreneurial risk must be mitigated. The call loan view conceptualizes bank depositors as creditors who must have a favourable view of banks to which they are lending money. Joseph Salerno argues that the importance of reputation is unique to fractional-reserve banking. He points to Washington Mutual which was a long-trusted bank in the U.S. in which collapsed only a week after the Lehman Brothers, an investment house. According to Salerno a slight distrust in Washington Mutual's ability to pay depositors, stemming from the failure of Lehman Brothers, was the reason that a bank so large could fail in only a week. Salerno claims that this too would have

been the fate of other long entrusted banks "had the Fed and Treasury not acted aggressively to bail out the largest banks in the fall of 2008" (2012). Salerno claims that "despite their long existence, despite their reputation for solidity, the slightest doubt that they were no longer able to pay off their deposit claims would have brought them down within a week after the Washington Mutual failure" (2012). Salerno contrasts this with Tylenol in which their reputation was damaged from some of their pills being laced with potassium cyanide leading to the death of seven people. Salerno points out that "the parent company, Johnson & Johnson, [was] able to maintain its own business goodwill by its successful and prompt response" (2012). Reputation may play a special role in the case of fractional-reserve banks but this is also true of product labelling companies, professional certification companies, and public accounting companies. Consider, for example, the Enron scandal in which Arthur Andersen, the company auditing Enron at the time, were complicit in the fraudulent reporting of over $100 billion. While Arthur Andersen could legally continue operations in 2005, they were unable to since no one would trust them to audit their company in the future. Thus, their reputation played an integral role in the company's success and a loss of reputation lead to its demise. Thus, reputation having the ability to completely collapse a company is not unique to fractional-reserve banking. Insofar as we can trust entrepreneurs in the accounting industry to protect their reputation, we can trust fractional-reserve banks to do the same.

As we have already seen, banks are incentivized to hold a certain amount of cash on hand so that they can stay solvent. But this does not preclude a poor entrepreneur from making unsound business decisions that would lead to the bankruptcy of his bank. Since stakeholders, specifically creditors, are negatively harmed by a bank going bankrupt (depositors are not able to call the deposits they made), there is an ethical concern with negligence on behalf of the bank

owner. If they hold a negligently small reserve ratio, then depositors will be negatively harmed in not being able to call money which they have a contractual right to. In 2011, Christopher Cowton noted that "Contemporary academic and policy discussions of corporate governance tend to accord primacy to the interests of shareholders … [and] the interests of creditors tend to be neglected" (21). Cowton argues, however, that company law has historically concerned itself with three main groups: the shareholders (or members) of the company; its directors and, to a lesser extent, its senior managers (whether they are directors or not); and its creditors" (2011, 25) and attempts to rectify the "the neglected third element of this trinity, the creditors" (2011, 25).

One way in which creditors can be protected in their loans to limited liability companies can be through regulation surrounding the relationship between the company and its members. This includes two proposals from Cowton. The first is "restricting the circumstances in which shareholders can be paid a dividend" (2011, 28) and second, "when the company is insolvent, removing control from [shareholders]" (2011, 28). Thus, for Cowton there are "two possible modes of governance for a limited liability company" (2011, 28). The first mode of governance is a "normal" (2011, 28) one in which shareholders are held to be of ultimate importance. This form of governance occurs when "creditors' fixed claims need to be capable of being met" (2011, 28). The second form of governance, in which the creditors are of ultimate importance in company decision making must take place when these claims from creditors are no longer able to be met. This second mode, the "distressed" (2011, 28) mode of governance "the company is governed in the interests of creditors, with shareholders hoping that there might be something left for them or that the company might eventually return to viability and hence normal governance mode" (2011, 28). In the case of banking, If reserve ratios were to ever fall below an acceptable level of risk in which it would be unlikely that "creditors' fixed claims [would] be

capable of being met" (2011, 28), then, with these restrictions in place, banks would be forced to increase their reserve ratio in order that they "eventually return to viability and hence normal governance mode" (2011, 28). Thus, shareholders would be eager to move away from the "distressed" for of governance since their own concerns would not be highest priority for company management insofar as they would lose control of the company and they could not be paid dividends, and would want to return to the "normal" mode of governance.

Some standing law may already be in place in the U.S. which serves to protect creditors from fraudulent or predatory actions from debtors. Steven L. Schwarcz, in his 1996 article, "Rethinking a Corporation's Obligations to Creditors", argues, that companies owe a duty unto their creditors that goes beyond that which is necessary to meet their obligations to shareholders. Schwarcz argues that a company's obligation to its creditors stems from three different sources: Contractual obligations, creditors' rights, and the obligation of good faith in commercial transactions. Contractual obligations don't exist between all debtors and creditors but are dependent upon certain stipulations written into the contract between debtor and creditor. As Schwarcz explains, "The loan agreement or other contract governing the particular relationship between the debtor and a creditor typically will contain covenants restricting the debtor's actions in an attempt to ensure that it remains creditworthy" (1996, 651). Cowton lists a few options that creditors might want to have built into contracts before loaning out money such as securing the loan against a company asset, a personal guarantee from directors of the company (to mitigate the limited liability status of the company), and limiting the activity of the debtor so that they remain more creditworthy (2011, 26). This final solution could be used in a contract between bank and depositor in which deposit contracts would stipulate a minimum reserve ratio. Thus, just like when acting as a creditor to any other business, there would be no *guarantee* of solvency

and an ability to pay when money is demanded, but this would limit the likelihood of banks overextending credit and having too little cash on hand on any given day.

Second, Schwarcz points to creditors' rights. One such example of creditors' rights is "fraudulent conveyance law, which allows a debtor's trustee in bankruptcy to avoid certain asset transfers or obligations incurred "with actual intent to hinder, delay or defraud" creditors" (1996, 652). This law prohibits soon-to-be bankrupt companies from giving money to third parties that would otherwise be collected by creditors by purchasing assets at greatly inflated prices in order to purposely keep that money from being distributed to creditors upon bankruptcy. This sort of restriction would help minimize the instances of negligent treasury management such as the ones mentioned above in which companies might make large purchases just prior to a debt coming due.[21] In the case of banking, creditors could be protected by similar restrictions against the transfer of cash assets. If a bank intentionally dropped their reserve ratio by purchasing assets at inflated prices to limit the amount of money that could be claimed by depositors when they go bankrupt, fraudulence conveyance law could make it that the banks' trustees would not have to honor these purchases. This would decrease the incentive to attempt to make any such fraudulent transfers of cash and protect depositors from greater losses from a bank's insolvency.

Third, Schwarcz says that, "[c]ommercial transactions have an implied obligation of good faith" (1996, 656). This means that "opportunistic behavior should be prevented in circumstances that could not have been contemplated in advance, and that implicit rules of conduct should be recognized if they arise from widespread courses of dealing in an industry or from particular courses of dealing between specific parties" (1996, 658). An obligation of good faith, according

[21] This would not, however, eliminate this risk as it is possible that such practices may occur as a form of entrepreneurial error, and not with the intent to defraud creditors.

to Schwarz, attempts to balance the "reasonable expectations" (1996, 658) of the creditors with the ""legitimate business" needs" (1996, 658) of the debtor. The reasonable expectations of the creditor are based on the standard business practices within the industry. Schwarcz argues that this obligation of good faith protects creditors when they are the weaker party in the transaction. However, since good faith requires that common practice within the industry be taken into consideration, Schwarcz argues that who the weaker party is and how the weaker party is to be protected must be viewed on a case by case basis.[22] In the case of the depositor and the bank, the depositor could plausibly be viewed as the weaker party since they lack the sophistication and bargaining power that banks do. Depositors are often individuals whereas most banking in Canada is done with large complex corporations. Thus, it is banks that should be hindered from making opportunistic behaviour if it this behaviour poses a threat to depositors' ability to collect money and could not be reasonably expected by them.

This has at least one interesting implication for fractional-reserve banking practices. There may be scenarios in which banks see opportunities to extend credit to the point that they would have to decrease their reserve ratio below a point which they would normally deem acceptable since the risk of becoming insolvent does not outweigh the potential gains from the credit extension. For example, a bank that normally holds a 20% reserve ratio may find it profitable through a cost-benefit analysis to lend out money to an up and coming start up by lowering their reserve ratio to 15%. If this is abnormal and goes against the "implicit rules of conduct … [that] arise from widespread courses of dealing in [the banking] industry" (Schwarcz, 1996, 658) and therefore could be reasonably expected by depositors, then the implied obligation

[22] Schwarcz points out that when banks are creditors themselves, they can rarely be viewed as the weaker party but offers no analysis of banks as debtors to depositors.

of good faith may protect depositors from banks acting opportunistically, investing in the start up and lowering their reserve ratio, and risking being unable to repay depositors. This does not limit banks' ability to act opportunistically if they have held higher reserves than could already be reasonably expected from depositors. With the same example above, if the bank had originally held a 25% reserve ratio and it would be reasonably expected by depositors that no bank would lower their reserves below 20% then such opportunistic behaviour would be permitted as it does not go against the reasonable expectations of the depositors. Instead, depositors would have expected that the "implicit rules implicit rules of conduct … [that] arise from widespread courses of dealing in [the banking] industry" (Schwarcz, 1996, 658) were to maintain a reserve ratio of 20% and therefore no reasonable expectations were dashed when dropping the reserve ratio to that level.

As mentioned above, the question of the proper reserve ratio for banks to keep is fraught with considerations. There are standard risk-management and profitability concerns that force banks to find a balance between risk of insolvency with the rewards of extending credit. But there are other legal-ethical concerns that these businesses that must consider when deciding how much money such as contractual obligations, a consideration for creditors' rights, and operating in good faith with creditors. These considerations are already found in existing law within western societies and have protected creditors in other industries. Banking should be no different. With the exception of the threat of a bank run, which can be factored into actuarial risk calculations, banks, like other debtors, face similar entrepreneurial risks and ethical considerations and must account for them in their treasury management decisions.

What will Contracts Look Like?

Dialogue between the Rothbardians and the Free Bankers has led to a disagreement surrounding the contents of bank deposit contracts. Rothbardians claim that a bank deposit must represent a bailment contract in which title to the money deposited is retained by the depositor. This is because the money, according to the Rothbardians money deposited is due "immediately" to the depositor and thus belongs to the depositor at all times. It is therefore deceptive, according to the Rothbardians, to not make clear the fractional-reserve practices of banks both to depositors and to those with whom the depositors exchange deposit certificates. Rothbardians, while maintaining their opposition to fractional-reserve banking have conceded that two potential remedies could legitimize the practice. Both involve particular stipulations to be built into bank deposit contracts. The first is proposed by Block who suggests that banks could print disclaimers on their deposit certificates describing the fractional-reserve practices of the bank from which the deposit certificate comes. Block offers the following example for a disclaimer that could be placed on a deposit certificate representing a 10-ounce deposit of gold by a bank with a 20% reserve ratio: "[O]ur policy is to keep only one-fifth of an ounce of gold on hand for each of the ounce value notes that we put into circulation. Since this here is a 10-ounce note, we've got only two ounces in reserve backing it" (1988, 29). According to Block, "If the preceding statement appears in bold lettering, and not in "small (invisible) print" the claim to voluntariness is strong indeed" (1988, 29) and would make fractional-reserve banking cease to be "purposefully deceptive" (1988, 29).

One objection to Block's "warning sticker" proposal is that "[h]is example seems to assume that the bank would hold a *fixed* reserve ratio (because it specifies the precise ratio on its

notes)" (Selgin & White, 1996, 89). But, as Selgin and White point out, this would likely not be the case for banks that operate on a fractional reserve basis. Instead, "the bank and its customers might well both prefer, however, to allow the bank discretion to vary the ratio as prudence dictates" (1996, 89). This is important if we want to make room for actuarial considerations in risk-management for banks. As Selgin and White argue, "Under varying conditions, a varying ratio is necessary to maintain a constant default risk" (1996, 89). This means that at certain times it would be necessary for a bank to hold a higher reserve ratio than at other times in order to stay above the necessary threshold to be considered acting responsibly. For example, a bank may have a reserve ratio of 20% this month but because of an increase in demand to hold cash instead of deposit certificates, that bank may have to have a reserve ration of 30% the following month. Thus, this particular proposal seems to fail as it would be impractical and would, in some cases, actually *hinder* banks from operating with more conservative reserve ratios.

However, a slight adjustment to this proposal could certainly be workable. Imagine that it is determined that for any bank operating in some territory, it would be negligent to hold anything less than a 20% reserve ratio. Thus, we could prohibit any fractional-reserve banking which involves a reserve ratio lower than 20%. A 10-ounce deposit certificate *could* have a disclaimer which reads, 'Our policy is to keep *at least* one-fifth of an ounce of gold on hand for each of the ounce value notes that we put into circulation. Since this here is a 10-ounce note, we've got *at least* two ounces in reserve backing it.' This would not hinder banks from operating on more conservative ratios nor would it hinder them from changing their reserve ratio from day to day.

Whether or not these "warning stickers" would be necessary is a matter of standard banking practices in the area in which the bank operates. As Rothbard writes in *Power and*

Market, "if a man simply sells what he calls "bread," it must meet the *common definition* of bread held by consumers, and not some arbitrary specification" (1970/2009, 1098). This would be the same for the employment of bank deposit contracts. If a bank offers to hold a "bank deposit" for their customers, then the bank deposit must meet the common definition of a bank deposit. This may vary from place to place and from time to time. If one were in an area where it was well known that banks operated on a fractional-reserve basis, then when creating deposit certificates for depositors, no such warning sticker would be necessary as both the depositor and others with whom the depositor would exchange the deposit certificate would know that the bank from which the deposit certificate came, was operating on a fractional-reserve basis. However, if one were in an area where 100% reserve banking was the norm and the *common definition* of a bank deposit was one which involved the bank keeping all money deposited on hand at all times, then such warning stickers may be necessary.[23] They would warn both depositor and those with whom the depositor exchanges the deposit certificate with of the special practice of fractional-reserve banking taking place at that bank from which the deposit certificate came. Thus, this "warning sticker" proposal serves as an excellent tool that could have use where those who use deposit certificates would be unsure of the practices of each bank.

The second proposal that some Rothbardians claim would legitimize fractional-reserve banking is to insert "option clauses" into the deposit contracts which would provide a grace period for banks to pay out when depositors demand the money in their account.[24] These option

[23] Selgin and White, relying on the same court decisions cited by Rothbard "maintain that the common definition or default meaning of a "bank deposit" is, as courts have recognized, that of a debt claim against the bank and not of a warehouse receipt" (p. 88-89) but do not posit that this implies any particular reserve ratio.

[24] See, Checkland, S. G. 1975. *Scottish Banking: A History, 1695-1973*, p. 67 in which he provides a copy of a Scottish bank note (deposit certificate) with just a such a clause which reads,

> The Royal Bank of Scotland . . . is hereby obliged to pay to |name| Or the Bearer, One Pound Sterling on demand Or, in the Option of the Directors, One pound Six pence Sterling at the End of Six Months after the day of the demand & for ascertaining the demand & Option of the Directors, the

clauses would be for a fixed period and would not allow for indefinite suspension of payment. As Selgin and White ask, "[W]ho, after all, would freely choose to take a permanently suspendable note?" (1996, 89). For example, deposit certificates would be payable "on demand" or, in the case that the bank did not have sufficient funds to pay when the money was demanded, the deposit certificate became payable in six months from the date it was demanded.[25] Hoppe admits that "such a practice [of issuing option clauses] would indeed dispose of the charge of fraud" (1994, 71).

This practice would undoubtedly make fractional-reserve banking less risky. Banks who found trouble paying their depositors when they demanded money could give themselves extra time to find liquid funds to give to depositors. By adding these option clauses, the demand deposits would become time deposits once deposited funds were demanded. With the above example of a six month option clause, the bank would be operating as if they were holding a six-month time deposit from the time the deposited funds were demanded and would owe the money demanded at the maturity date, six months in the future. This relieves the Rothbardian concerns of double-title to property since banks who lend out money held on deposit are no longer, as the Rothbardians posit, lending out money that belongs to someone else. Instead, under this new contractual agreement which includes an option clause, banks would be lending out money that is due some time in the future (the day it is demanded plus the length of the option clause) and thus properly belongs to the bank now.

Accomptant & One of the Tellers of the Bank are hereby ordered to Mark & Sign this Note on the back of the same.

This version of the option clause provides for additional interest to be paid to the depositor in the case that the bank could not pay on the day money was demanded.

[25] As with the above example, it could include a higher interest rate for those six months but it need not necessarily.

Under the Rothbardian view, that demand deposits are due immediately, there is a question as to what the appropriate length of any such time deposit could be. Suppose that a bank offered demand deposits with an option clause which gave them an additional five seconds to pay depositors after they demand it. It would seem that this would be almost no different than a demand deposit since it would only give an additional five seconds to repay the depositors which is nearly the same as owing them the instantly. Block and Barnett, who consider lending out money held on a time deposit to be legitimate but lending out money held on a demand deposit to be illicit, consider this to be a "continuum problem" (2009, 711) asking the following: "The continuum problem arises when we ask whether it is OK to take in a time deposit for say, 1 month, and lend it out? Of course, But how about one week? one day? one hour? one minute? one second? That is, just how instantaneous does "instantly" have to be for the purpose of determining whether a transfer of funds to a bank constitutes a demand or a time deposit?" (2009, 711). The same problem arises with option clauses. How much time does the option clause have to give the bankers to pay demanded money to, for Hoppe, "dispose of the charge of fraud" (1994, 71)?

No such problem arises with the call loan view of bank deposits. Recall that under the Rothbardian view of the bank deposit deposited funds are due to the depositor *immediately* regardless of whether or not it has yet been demanded. In contrast, under the call loan view, deposited funds are due to the depositor only once it is demanded. Thus, adding an option clause giving an additional five seconds to bankers to pay depositors does not flip a switch from money deposited being due immediately to it being due 'when demanded plus five seconds'. Instead, the addition of an option clause under the call loan view would hold that the money is *always* due 'when demanded plus the length of the option' and a call loan with no such option clause is due

'when demanded'. Since, as I have shown in the previous chapter, that viewing funds deposited as due to depositors when they are demanded there is no need to force depositors to agree to such contracts to "switch" demand deposits into time deposits. And thus, r*equiring* an option clause would reflect an infringement on the depositor's right to use the money they own as it would limit depositors' and banks' abilities to form contracts and thus violate the rights that property owners have under the Rothbardian view property which includes the right to *give up* title to your property. This includes giving up title under mutually agreed upon credit arrangements such as the call loan.

Conclusion

If we accept that fractional reserve banking can be practiced legitimately when deposits are viewed as call loans, then we are led to inquire as to the practical implications of this view of deposits. Above, I have briefly outlined some of these implications. While fractional-reserve banking requires some special considerations, such as the possibility of bank runs and the potential requirement to disclose reserve ratios, the response about how fractional-reserve banks should interact with creditors is that they should act as any other business would. Banks must act in accordance with standard practices and are bound by the same ethical rules that govern the relationship between debtor and creditor as any other business. This *includes* acting in accordance with normal industry standards. Banks should be bound to standard ethical practice for banks the same way grocery stores are bound to standard ethical practices for grocery stores.

In the case of bankruptcy, creditors, including depositors, should be given the same rights as any creditors who stands to gain less than they are owed from insolvent debtors. Creditors may gain these rights contractually or otherwise, but this is, again, no different than the way creditors gain rights when lending money to other companies. Further, banks, like any other

business, are incentivized to practice sound risk-management strategies in order to avoid insolvency. These practices, for fractional-reserve banks requires that they make actuarial calculations regarding the risk of depositors demanding money and thus having money become due. But this is, again, similar to the other risks that other businesses must take into consideration when managing their treasury. There always exists the possibility of unexpected cash outflows such as possible torts against the company, and other unforeseen expenses. The fact that businesses are able to successfully account for these future cash outflows is best exemplified by the insurance industry which always has obligations to pay out cash at unknown times in the future. Treasury management practices for banks are also bound by the same ethical practices of other debtors insofar as banks must maintain proper reserve-ratios as to respect creditors' rights and not arbitrarily lower their reserve-ratios in order to capitalize on opportunities which fall outside of the normal scope of banking operations.

Finally, fractional reserve banking must make their practices known to depositors. This *may* include requiring banks to issue "warning stickers" on their deposit certificates to let customers know about their fractional-reserve practices but this is only true if there isn't already a general knowledge that banks *do* practice fractional-reserve banking. This, again, is no different than any other company who must be honest about the products they are selling. If one sells bread, they must sell what is commonly known as bread and if someone offers to hold a bank deposit, they must hold what it commonly known as a bank deposit. If the common definition of a bank deposit is a bailment from depositor to bank in which the bank is always expected to have the bailed money on hand, then these warning stickers would be necessary. If the common definition of a bank deposit is a loan from depositor to creditor in which the bank may lend out the money lent, then no such warning sticker is necessary.

As I have attempted to make clear, the extent to which we trust any business to partake in risk-management while holding debt, we can similarly trust banks. Creditors, in the case of banks depositors, should be free to take on that risk as they see fit. As long as they are following standard practices for risk management, treasury management, and disclosure to creditors, they should be free to practice fractional-reserve banking.

Conclusion

In the bailment view of a bank deposit, bankers are lending out money which doesn't belong to them but, instead, belongs to depositors. Thus, two people, the borrower and the depositor, have title to the same piece of money. This is the double-title to property problem. This project has offered a conception of bank deposits in which depositors are creditors to the banks by holding debt which is callable at any time. This is the essence of the call loan view of bank deposits. This conceptual view allows for us to dissolve of the problem of double-title to property which arises when banks are viewed as bailors. Instead, depositors are viewed as creditors and banks as debtors. With this conception of bank deposits, when banks lend out deposited money they are lending out money which belongs to themselves, not depositors. Thus, at no time do two people ever have title to the same piece of property.

This thesis also explores the practical implications of the call loan view. The relationship between bank and depositor under the call loan view is that of debtor and creditor. Thus, banks must operate in ways which protects creditors the same way any other debtor does. As I have argued, how banks should do this is no different than what is already suggested by existing business ethics literature on the rights and proper treatment of creditors. As long as banks are following proper treasury management practices and being honest in their contracts with depositors, then banks should be free to operate on a fractional- reserve basis.

There still remains a great deal of work that can be done in order to more fully understand the nature of ethical fractional-reserve banking practices. How to properly practice fractional-reserve banking requires that we analyze the many factors which effect the relationship between banks and their depositors. This project does not, for example, consider the

implications that arise with the existence of a central bank and a publicly funded deposit insurance corporation such as the FDIC. Thus, further research can be done to explain the relationship between ethical fractional-reserve practices with and without the existence of these institutions. Beyond this, more can be done in the way of understanding how banks can act to improve public trust. As has been explained, many industries rely on public trust in order to operate at all. Banks are similar in that a complete collapse of public trust would keep them from operating on a fractional-reserve basis as depositors would quickly ask for deposited funds to be returned. Thus, future research about what destroys or maintains public trust with banks will help explain how fractional-reserve banks might operate more efficiently and with less risk in the future. This project offers a starting point from which to view these operational and ethical considerations within banking by showing that depositors are creditors who hold debt on a call loan.

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