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Some Ethical Dilemmas of Modern Bankingⁱ

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Abstract: How ethical have recent banking practices been? We answer this question via an economic analysis. We assess the two dominant practices of the modern banking system – fractional reserves and maturity transformation – by gauging the respective rights of the relevant parties. By distinguishing the legal and economic differences between deposit and loan contracts we determine that the practice of maturity transformation (in its various guises) is not only ethical, but also serves a positive social function. The foundation of the modern banking system – the holding of fractional reserves against deposits – is, however, problematic from economic, legal and ethical angles. Starting from a microanalysis of money’s function, a reassessment of the current laws concerning the practice is encouraged, with the aim not only to rectify economic irregularities, but also to realign depositors’ rights with the obligations of the banking sector.

Key words: banking, fraud, fractional reserves, maturity transformation, natural law, loan and deposit contracts

Introduction

How ethical have recent banking practices been? A good deal of recent evidence points to the dangerous nature of much banking activity, while only a small yet expanding body of work assesses whether there might be deeper issues at stake. In a common theme throughout this decade's recession, overextended banks find themselves in a liquidity crunch. The source of the overextension is two-fold. First, bank assets declined in value below that of their liabilities (primarily cash, and fixed at par value), necessitating the sale of assets to fund liability redemptions. Second, banks lent money for a longer period than they borrowed to fund these loans. Relying on renewing, or rolling over, their short-term funding to maintain liquidity, the lack of funding options after the collapse of Lehman Brothers endangered the liquidity, and hence solvency, of many banks.

Two activities define the modern banking system, both of which are the centre of controversy concerning their economic effects, and more importantly, their ethical implications. The most salient activity is the practice of holding fractional reserves. An individual deposits a sum of money into a bank account for safekeeping, while the bank utilizes a portion of this deposit to finance investment activities. A bank thus keeps only a small amount of the original deposit on hand to meet redemption demands. Even though the depositor does not have his deposit fully available and safe, there is a high probability that he will receive his cash on demand.

The second prevalent facet of modern banking is the practice of maturity transformation. This practice commonly entails accepting loans of short durations or deposits to finance loans of a longer duration. The fractional reserve banking system can be seen an extreme case within the

larger category of maturity transformation. There are however important legal and economic characteristics that distinguish the two practices that breed distinct ethical analyses.

A growing chorus is beginning to chime of the benefits of an ethical analysis to some monetary practices (Hülsmann 2008; Howden 2010a; Block and Davidson 2011).ⁱⁱ We augment these views by providing a legal/economic foundation to demonstrate exactly what is ethically suspect about many predominant banking practices. Starting from money's function as an alleviator of uncertainty, we form micro-legal foundations for financial activities to outline and illustrate the cases concerning the legitimacy of broader trends. Although our analysis centers on the banking industry, the issues raised apply to the larger financial services industry, such as the recent case concerning rehypothecated assets by MF Global illustrates. Our framework explains why the recent ire directed at bankers is partly justified and partly misplaced.

Money: The root of all banking

Any discussion of banking practices must start from the industry's *raison d'être*: the facilitation of individuals' monetary transactions. Uncertain of what, when, where or the amount of future expenditures, individuals demand to hold an amount of money to safeguard against this uncertain future (Mises 1949: 249). Money is that asset which the individual uses to mitigate one of the most fundamental of his needs: the desire to reduce felt uncertainty (Mises 1949: 14).

Money is the economy's liquid asset *par excellence*, a vaunted position that arises for two reasons. First, it is the good that emerges, and is subsequently defined, as the generally accepted medium of exchange. Second, as a consequence of its role as the generally accepted medium of exchange, money is the good that defines our debt obligations, and is widely accepted in

payment thereof. Money becomes the best option available for individuals to hedge against the perceived uncertainty of their future. The existence of legal tender laws today – laws that oblige creditors to accept a certain currency in the settlement of debts – further mitigates this uncertainty.ⁱⁱⁱ

From his income, an individual has two options to choose: consumption or savings. He can hold the saved portion, in turn, in one of three broad categories: investments in equity, investments in debt or loans, or held in the form of cash (or equivalently, in a demand deposit account at a bank). While the first two categories – equity and debt investments – have the goal of augmenting future income and thus increasing future consumption, the category of cash holdings serves a much more sober purpose. Faced with the constant threat of unforeseen contingencies, an individual demands to hold a cash balance to mitigate any surprise expenditure that may occur.

Individuals thus require two services that banks have specialized in – accepting deposits and intermediating client’s loans. These two broad services result in two separate contractual agreements and sets of obligations.^{iv}

Banks increase the safety and availability of savings through demand deposit accounts, thus increasing the “*Absatzfähigkeit*”, or marketability, of these savings (to borrow Menger’s (1871: 241) term). Once an individual accumulates a sufficient amount of on-demand savings to fulfill the need of mitigating his felt uncertainty, he may channel unconsumed income to other outlets. Banks provide these services as well, in varying degrees, by allowing their clients to make loans. These two contracts – deposit and loan – thus provide for two different services to

the individual, and consequently entail different benefits, costs and, most importantly, obligations.

Deposit v. Loan contracts

Many aspects of both deposit and loan contracts are quite similar. Both can involve specific goods (e.g., art, cars or homes) or fungible goods (e.g., money, wheat or water). Both involve the physical transfer of a good from one person to another. An individual may deposit his art or wheat with a depository just as a lender can loan his car or money to a borrower.

Economics Differences between Deposit and Loan Contracts

There are, however, three significant economic differences between the two contracts (Huerta de Soto 2006: chap. 1; Bagus and Howden 2009). These economic differences breed three corresponding legal distinctions.

The first economic difference is that the loan contract represents an exchange of a present good for a claim on a future good. A lender exchanges money units to a borrower and in return receives a claim to a set of future money units. This is quite distinct from the deposit contract, in which there is no such intertemporal exchange (Mises 1971: 269). The depositor, unlike the lender, does not renunciate the money units in question, but rather retains a full claim to them. The depository does not gain the use of the money units deposited in it. It must instead continually safeguard them for the depositor (as per the intent of the contract) as well as keep them continually and fully available for withdrawal.

A second economic difference is that in the loan contract the *availability* of the exchanged asset is transferred. By loaning money units, the lender gives up both the availability and use of these same units over the duration of the contract. The borrower is at liberty to use these money units as he pleases, until the contract's maturity when the predefined claim to a future good comes due. At this moment, the claim to a once-future good becomes the delivery of a present good to settle the debt. In contrast, in a deposit contract there is no such intertemporal exchange of the good's use. As the goal of the contract is the full and continual availability of the deposit, the depository is not in a position to make use of the deposit at *any* time during the contract's duration. As the deposit can be requested at any time and must be provided by the depository at such a time, there can be no transfer of availability during the interim period – the depositor retains the full availability of the deposit (Mises 1971: 268), and the depository must ensure that this is met by not making use of the deposit.

The third economic difference between the two contracts arises from the fact that a loan involves an intertemporal exchange of goods, while a deposit does not. Intertemporal exchanges involve an interest spread between the present and future prices of the exchanged good. In a loan contract the borrower will have to pay the lender for the use of the lent good over the contract's duration. As the deposit contract has no intertemporal element, there is no interest payment to compensate for the loss of the use of the deposited asset. These three fundamental economic differences raise three important legal distinctions.

Legal Differences between Deposit and Loan Contracts

These legal differences result in separate obligations for both deposits and loans, strictly limiting the activities that each contract allows for.

First, the legal *purposes* of the two contracts are radically distinct. The loan represents the transfer of property from the lender to the borrower. The lender will lose all availability and use of the good for the duration of the loan contract, while the borrower gains these two features. The depositor's intent is the safekeeping of his deposited good; the depository does not gain the legal use or availability of the deposit. The legal *claim* on the contracted good remains distinct depending on which contract is exercised.

The second legal distinction is that the loan contract must necessarily establish an (at least implicit) contractual *duration* (Huerta de Soto 2006: 1-6). As the essential feature of a loan is the transfer of a good's availability, a maximum duration of this contract must arise.^v A good "lent" with no term would be continually on demand, and hence be equivalent to a deposit. The borrower would never be at liberty to make use of the lent good as the lender could ask for its return at any moment. There could not be any transfer of the good's use in any meaningful sense of the word.^{vi}

The third legal distinction (and perhaps the most important one) is the difference in contractual *obligations*. The legal obligations are defined by both the type of contract entered (deposit or loan) as well as the type of good contracted for (specific or fungible) (Huerta de Soto 2006: 2-4).

A specific good lent results in a *commodatum* contract – car leases, apartment rentals or inter-museum loans for works of art exemplify these contracts. The borrower gains the use of the good in question for the contract's duration. The lender is reimbursed at the end of the contract

with the return of the lent good – in either the same condition (qualitatively and quantitatively) or in a predetermined and contractually specified condition. A loan for a fungible good results in a *mutuum* contract – money loans, a farmer borrowing wheat, or oil lent to a gas producer provide examples. As one unit of the good is indistinct from other units, the contract terminates with the return of the *tantundem* – a predefined quantity and quality of the lent good – at the contract’s maturity. The homeowner repays the bank by returning a quantity of money to terminate his mortgage (but not necessarily with the same money as was originally lent), or a farmer may repay a mill by returning a quantity of wheat to terminate a *commodatum*.

Note that in these two types of loan contracts the obligation is only for the return of a good in the future. Nothing is said about the use or availability of the good borrowed in the present. The borrower is at full liberty to do what he may with the good over the contract’s duration. The only requirement is that he returns the promised good upon maturity – the lent good for the *mutuum* contract, or the *tantundem* for the *commodatum* contract.

Deposits – both for specific and fungible goods – result in distinct legal requirements. As the depositor’s intent is the safekeeping of a good, the depository’s obligation is to keep the deposit safe and available at all times: he may not make use of the deposited good at *any* time during the contract’s existence.^{vii} For specific goods, the depository must keep the original deposit on hand, to be available to return to the depositor upon request. For fungible goods, the bank must keep a *tantundem* available at all times. Note that this *tantundem* does not imply that the same deposited units be kept on hand, only that an equal quality and quantity be kept available. Thus, a mill need only keep enough wheat on hand to honor the farmer’s deposit, not his same deposited units. Likewise, the bank need only keep a similar quality and quantity of

money units available to honor the depositor’s withdrawal requests. These economic and legal differences are summarized in table 1.

	Loan Contract	Deposit Contract
Economic Differences	<ol style="list-style-type: none"> 1 Intertemporal exchange of present for future good. 2 Lender transfers asset's availability to borrower. 3 Borrower pays interest. 	<ol style="list-style-type: none"> 1 No intertemporal exchange of goods. 2 Depositor retains availability of good at all times. 3 Depositor pays for services.
Legal Differences	<ol style="list-style-type: none"> 1 Lender transfers legal claim of good to borrower. 2 Lender establishes a maximum duration of loan. 3 Borrower must return good (or <i>tantundem</i>) upon maturity. 	<ol style="list-style-type: none"> 1 Depositor retains legal claim to good 2 No explicit duration need apply to the deposit. 3 Depository must keep good (or <i>tantundem</i>) on hand at all times.

Table 1: Contractual differences of deposit and loan contracts

It is in this third legal distinction – the distinct obligations of the depository or borrower – where we note the largest contractual difference. The borrower in a loan contract (for both specific and fungible goods) need only return a predefined good at the contract’s maturity. Nothing is implied in this requirement concerning what they may or may not do with the borrowed good over the course of the loan’s life. The depository in a deposit contract (again, for both specific and fungible goods) does not gain this same liberty. As the deposit must be fully available, and given that no rights to use the deposit are transferred, the depository must keep the good (or its *tantundem*) safe until the depositor requests its return.

Thus the contracting parties have four different contracts that they may enter, as summarized in table 2. Each contract for a specific good – whether *commodatum* or regular

deposit – can be terminated by returning the same good as was originally subject to the contract. In cases of fungible goods, the mutuum or irregular deposit can be terminated by returning a tantundem. Note that while deposit contracts can also be either fungible or specific goods, the distinction is moot for the analysis at hand. In each case the contractual obligation is to keep the deposited good, or its tantundem, on hand.^{viii}

		Purpose	
		Transfer of ownership	Safekeeping
Type of Good	Specific	Commodatum	Regular Deposit
	Fungible	Mutuum	Irregular Deposit

Table 2: Typology of deposit and loan contracts

These separate legal obligations imply that deposited money must be treated separately from lent money. This separation is tenuous in the modern banking system as banks partake in both activities. Deposit services are available (primarily through the use of checking accounts, but also through safety deposit boxes), while a sizable portion of banking activity (and the majority of profits) come from mutuum services – mortgages, consumer loans or retirement services. Not only are the deposit services offered by banks compromised through a comingling of activities, recent regulatory changes have furthered this occurrence. The repeal of the Glass-Steagall Act in 1999 effectively removed the separation of investment banks from commercial banks. While the former issued securities and partook in financing investment projects, the latter accepted deposits. Such a regulatory change allowed for a further use of deposited funds to be used for lending purposes.

Reservations about reserves

The ubiquitous feature of modern banking is the feature of fractional reserves. Depositors place their savings in a demand deposit account with a depository (i.e., a bank). Banks keep a portion (or fraction) of these deposits in their reserve balances while loaning out the remainder.

Depositors have a claim to money in their deposit accounts, while the bank does not necessarily have the money available to honor all these depositors' claims at any one time as it holds only a fraction of these deposits in its reserves (hence, "fractional reserve" banking).

The traditional rationale for the emergence of the fractional reserve banking system is as follows: As money is fungible, the bank need only return a *tantundem* upon request. Over time, and with a sufficient number of depositors, the bank accumulates a quantity of deposits that are not being requested for redemption simultaneously. As this results in a sum of money being deposited but not requested, there is a perceived "waste" of resources. Money exists in an account and is not being used when it could easily be loaned for productive gain. As long as not all depositors request their funds at the same moment the bank will be able to honor its obligation to return their deposits.

The ubiquity of this practice is such that it passes unnoticed in almost every introductory economics or business text that touches on the topic of banking (see, for example, Mankiw and Taylor 2008: chap. 19). In all these discussions of the emergence of fractional reserve banking, very little effort is dedicated to assessing the legal or ethical consequences of the activity. To understand how these consequences interact with the practice we turn to the previous legal analysis.

In essence, the practice of fractional reserve banking involves a misalignment of the economic goals of depositors and depositories, with a consequent confusion of each actor's legal obligations.

A depositor enters into the deposit contract as an individual looking toward the end of removing felt uncertainty. As such, he places money in a demand deposit account to be continually and fully available at some unknown future date. Note that while the depositor is confronted with several options to hold his savings, the demand deposit is the only one that fulfills the requirement to maintain both full and continuous availability of his money. The depositor could make use of an in-home vault to keep his money safe for a rainy day, but this would do nothing to ensure that the money was available in the physical location that the depositor needs when the time arises. The depositor could alternatively use a safety deposit box in a bank to store his deposit. Once upon a time this option would have been a very close substitute in availability and safety for a demand deposit account. Advances in both safekeeping (through stronger vaults and locks, and safer transportation means) as well as availability (through checks, debit transactions, and electronic transfers) have allowed modern demand deposit accounts to surpass traditional safety deposit boxes in both these regards.

Fractional reserve banking is legal under the modern complex of law in most of the developed Western world, as some opponents of the practice have noted (Barnett and Block 2011: 231fn9). While the legal system may assign *de jure* legitimacy to such a practice, it cannot erase the conflicted underlying economic and legal reality, nor can it mask the ethical implications of permitting such a practice to continue. Not everything that is legal is necessarily ethical. The legality of an action rests on different criteria than those of ethical claims. Addressing the present legal status of the fractional reserve banking system uncovers

problematic irregularities (Bagus *et al.* forthcoming). Laws have their own strict criteria, some of which are notably absent in treating deposit and loan contracts as interchangeable.^{ix} Foremost among these are two basic rationales for non-performance of a contract law: frustration of purpose, and impossibility. From the depositor's point of view, the contract's purpose will always be frustrated as they have entered a deposit agreement, while the bank has treated this deposit as if it served a different purpose. This is most apparent when all depositors attempt to claim their funds at the same time. The impossibility of the bank to honor all such claims exposes the impossibility of the contract. Non-performance under this condition is always apparent, not only when the bank lacks the funds to honor all redemption requests. The reason for this is that a party need not demonstrate the impossibility of fulfilling its side of the contract for a breach through non-performance to occur. A car dealer who sells the same car to multiple people simultaneously is in breach of contract even before it is apparent that only one person can take ownership of the car.

Allowing for fractional reserves permits a bank to break its legal obligation of safekeeping the deposit and not to use it during the contract's duration. Effectively, the bank alters the contractual obligations of the deposit to that of a *commodatum* – returning the *tantundem* in the future (though not necessarily upon request), and making use of the “deposit” in the meantime.

Yet, what if depositors know and consent to the bank using their deposited funds until they are requested, as many informed bank account holders are today. The wish to retain the full availability of the money and the bank using the money are legally incompatible, even if the depositor knows about the bank's practice and consents to it. The saver at all times has some degree of felt uncertainty concerning his future expenditures. In only that instance where he was

fully certain of all future expenditures – both in amount and when they will occur – would an individual *not* require some amount of savings to act as a hedge against future surprises. When the bank uses deposited money, it cannot be fully available at the same time, no matter what the depositor believes. The contract is legally frustrated through its own impossibility.

Adding funds to a cash balance in a deposit account is a directed action that fulfills a definite service. The purchasing power of the deposited funds allows the depositor to mitigate his felt uncertainty concerning future expenditures – it allows him, in other words, to sleep well at night. The distinction between money lent (or “circulating”) as being productive and money deposited as being idle is fallacious (Rothbard 1962: 265; Hutt 1956, Hülsmann 1996: 12). The original deposit is not “idle” in the sense that by sitting “idle” in a deposit account money *is* performing its role: it is continually available for withdrawal at the depositor’s demand.

Utilitarian-type arguments supporting fractional reserve banking are problematic, in part, because they lack deep insight into money’s role in the economy. Money is not a limp veil lacking influence on society, but is an integral facet in understanding the moral consciousness of developed economies (Levinas 2007). That money lubricates the gears of trade and allows for a greater scope of transactions than a moneyless economy only scratches the surface of money’s role. In fact, there are two sides to the coin. On the one side, money allows for greater ease of transactions. On the other side, money’s position as the liquid good *par excellence* makes it *the* medium of savings to mitigate future uncertainty. Deposited money does not fail to serve a definite need, but its idleness is the exact fulfillment of one of its main roles.^x

The argument against banks using reserves applies equally well to any institution granted custody rights over an asset. Financial institutions require clients to post collateral prior to

engaging in trades through the institution's trading services. The collateral, despite being idle, serves a two-fold purpose. First, it delineates the extent to which a client may participate in trades (i.e., it provides his capital). Second, it secures the financial institution against losses the client may incur, thus limiting its downside risk.

One notable feature of late 2011 was the very visible realization by the public that financial institutions were potentially rehypothecating on posted collateral. By using collateral, institutions were able to profit both on the fees from client transactions and the potential profits from using the collateral as capital. The risks under such an instance are asymmetrical. If the client goes broke, the bank takes formal possession of the collateral that it was previously the custodian of. Yet if the institution itself declares bankruptcy, the client potentially loses recourse to not only their financial assets purchased through the institution, but also to their original capital. While it is beyond the scope of this paper to assess the legality or ethical circumstances surrounding such a practice, some commentators have made explicit reference to the fact that rehypothecated assets appear similar to fractional reserve accounts (French 2011). In both cases the resemblance stems from an asset deposited with an institution acting as a custodian, and the institution treating this deposit as a loan that it is free to use.

Much ado about maturity transformation

If fractional reserves define one of the operational characteristics of modern banking, maturity transformation is increasingly viewed as its primary function (see, for example, Freixas and Rochet 2008: 4). Maturity transformation – also known by its aliases, “borrowing short and

lending long”, or “maturity mismatching” – entails banks acting as intermediaries to bring together savers and borrowers of distinct temporal preferences.

Typically, savers wish to lend money for short periods. Borrowers by-and-large desire loans that match the maturities of their projects. Hence, house owners prefer to borrow, *ceteris paribus*, money with a long-term mortgage rather than a continually re-contracting several short-term ones. Banks create the market for these reverse (and unmatched) preferences by borrowing short-term funds from individuals and lending them for longer terms to investors.

In undertaking this activity, banks must shoulder two distinct types of risk. By way of example, a bank will borrow funds for one year from an individual via a certificate of deposit. This money will then be lent to another individual as a 30-year mortgage. The bank’s one-year liability cannot be repaid with recourse to its offsetting asset, as the mortgage will not be repaid until the distant future. The bank’s first risk lies in its ability to find a willing lender in one year’s time to borrow money from in order to repay the original lender. This action of continually finding new short-term funding sources is known as “rolling over” a loan portfolio. The risk apparent is that no lender will be available in one year for the bank to roll the loan over to. The second risk involves that case where a suitable lender can be found, but at an interest rate that is not profitable. Hence, the bank will continue earning profits if it repays the short-term loans it borrows at a lower interest rate than its corresponding longer-term loans are repaid at.

Acting in this intermediary role, the bank partakes in two contracts. Both are of the same type, and involve the same obligations. A *mutuum*, or loan contract for a fungible good, is struck twice to enable the bank to gain the use of funds from a saver, and then to put them to use via an investment in the form of a loan to an external borrower. The bank, being a borrower for one of

these contracts and a lender for the other, has its contractual obligations both aligned and offset against one another.

As a saver lends money to a bank, the bank is given one obligation – to return the loan's *tantundem* at some future time. Until such a time, the bank is at liberty to do as it pleases with the lent sum. With maturity transformation, the bank lends the same sum to an individual for a longer maturity than it originally borrowed the money for. Provided that all parties repay their *tantundem* there is no significant legal or ethical problem with this practice.

This practice has been a prevalent banking feature of the past decade, and has come under attack as being a root cause of the current crisis. Indeed, maturity transformation has been deemed as ethically suspect both on grounds of natural rights (Barnett and Block 2009) and utilitarian grounds (Block and Davidson 2011; Barnett and Block 2011). Yet when the clear distinction between loans and deposits is made, there are no conflicts or ethically suspect elements in this common practice of transforming loan maturity (Bagus and Howden 2009), at least, provided that the two maturities in question are positive, i.e., the bank is intermediating two loans.

There is, however, a problematic aspect of today's banking system and the funds it transforms the maturities of. When coupled with the fractional reserve banking system, banks are permitted to lend out funds of longer maturity than not only the funds *lent* to it, but also the funds *deposited* in it. Hence, deposits of zero maturity (e.g., those funds continually on demand) are transformed into loans of positive maturity. Herein is one problematic aspect of maturity transformation. Deposits entrusted to a bank must be held in safekeeping until requested, thus annulling any possibility of contributing them to a loan portfolio.

The loaning out of deposits represents a case of maturity transformation *in extremis*. Indeed, it is almost a misnomer to refer to such a practice as a maturity transformation, as deposits lack a maturity by definition. The practice occurs in contrast to both economic laws and a proper legal assessment, and is an unethical activity for a bank to pursue. One additional feature of the modern banking system exacerbates the practice further. Under a free banking system, such as outlined in Huerta de Soto (2006), banks would be held in check against excessive amounts of maturity transformation by the risk involved in obtaining future loans to roll over their existing portfolio. A bank that transforms loan maturities is forever at the mercy of the market when its existing (short-term) borrowed funds come due. It must find funding on the market to roll into, and this funding must be at an acceptable interest rate to ensure maintained profits.

The existence of a central bank reduces the risk of maturity transformation, and thus promotes the activity beyond what it would otherwise aspire for via three main operations (Bagus and Howden 2010: 75-81). First, by continually increasing the supply of money and credit, as is the case with almost all modern central bank controlled monetary systems, banks are ensured that a greater amount of funds will be available in the future to borrow against than exist in the present. Second, by ensuring ample liquidity in times of crisis, as has been the case in the United States during both periods of quantitative easing, and in Europe during the liquidity crisis of 2008, banks are assured that if liquidity is sufficiently constrained, the central bank will ease the constraint via special credit injections. Lastly, and perhaps most importantly, the central bank functioning as a lender of last resort ensures the banking sector that even if the previous two measures are insufficient to promote liquidity, special bank-specific capital injections (e.g., bailouts) will be proffered to ward off insolvency. These three practices in general take the

otherwise non-problematic practice of maturity transformation and transform it into something that reaps harm on participants involved in the practice itself (through losses to investors or depositors of the specific banks in question). More damaging is the fact that it also harms innocent bystanders (through the propagation of collateral damage via illiquid markets and bad debts accumulating in the portfolios of banks that resisted the temptation to pursue this activity).

There is nothing inherently unethical about banks transforming maturities within their loan portfolios. It is, indeed, an essential service for both savers and borrowers, and thus serves a definite welfare enhancing social function. There is too much of a good thing, however. When coupled with the occurrence of fractional reserve banking, maturity transformation infringes on the rights of depositors. Furthermore, excessive amounts of transformation as promoted through a central bank breed conditions of future liquidity constraints – overly reliant on increasing doses of liquidity, banks find themselves in dire liquidity straights when chance events occur that remove liquidity (if even temporarily) from the market. A socially beneficial practice consequently violates the natural rights of its depositors, as well as the utilitarian cost-benefit calculus of the banking system.

Concluding remarks

The analysis herein furthers our knowledge of what it means when we say that financial institutions act “unethically.” While many accounts viewed banks with suspicion during the boom years, very little support in the way of objective analysis is offered to this end. We have provided a framework capable of shedding light on the client-bank relationship concerning the

two most prominent practices in modern banking: fractional reserves, and maturity transformation.

We conclude by answering the question we started with: how ethical have recent banking practices been? While the market test suggests that the banking system has pursued unsustainable or at least unstable activities, our analysis suggests caution: not all of these practices are ethically suspect.

The foundation of the banking sector is the fractional reserve system. By lending out depositors' funds, banks are able to invest the proceeds while holding only a fractional portion to maintain redemption requirements. This practice not only violates depositors' rights, but also alters the economic landscape. By not safeguarding an individual's deposited funds, the bank is altering the depositor's hedge against future uncertainty.

If fractional reserves provide the foundation, maturity transformation defines the most common practice that the banking sector engages in. While using short-term loans to fund longer-term investment projects is not in itself ethically problematic two aspects of this practice endanger the rights of market participants.

The first is the maturity transformation of deposited funds within the fractional reserve system. As deposits lack a maturity, they cannot be lent out for investment activities – they must be held continually as they are redeemable on demand. Hence, the banking system that uses deposited funds for the purposes of maturity transformation infringes on the rights of the depositors whose funds are appropriated.

The second problematic aspect is that when coupled with a central bank, maturity transformation has the ability to be practiced in excess. Banking sector instability and an ensuing

liquidity crisis may be promoted. While this consequence does not necessarily have to infringe on the rights of any of the directly affected parties, if a subsequent crisis causes systemic effects that harm innocent bystanders, third-party rights may be impaired.

In probing for a reform policy, we end by meeting the challenge called for to end such troublesome practices: “Draft me a law” (Yeager 2010: 191). The use of deposits to fund investment activities infringes upon depositor rights, and allows banks to extract rents otherwise not possible. Thus, a separation of loan and deposit activities would do much to rectify the ethically suspect practices of modern banking.

Such a separation of roles is, luckily, not without precedent. The Bank of Amsterdam maintained “for all intents and purposes” a full backing of its deposits for almost 200 years, from 1609 to 1772 (Huerta de Soto 2006: 98-101). The Stockholms Banco (known today as the Swedish *Riksbank*) originally commenced operations in 1656 with two separate departments. One handled deposits and kept a full reserve balance on hand to meet redemption demands, while the other conducted loan operations, including maturity transformations (Kindleberger and Aliber 2005: 69). *The Bank Charter Act*, adopted by British Parliament on July 19, 1844, prohibited the issuance of new notes unbacked by a full reserve (although it failed to extend this full backing to deposit accounts). It thus had the effect of largely halting the fractional reserve nature of the English banking system at the time.^{xi} Under the Glass-Steagall Act from 1933-99, the financial industry was largely divided into two parts – investment banks that issued securities, and commercial banks that accepted deposited funds. While commercial banks were still not prohibited from issuing loans against deposits, there was a general separation of financing and depository activities. Furthermore, the regulatory regime recognized the unique

safekeeping role of deposit banks as separate from the more speculative role of investment banks.

Rectifying these economic and legal irregularities of the modern banking system would do much to alleviate concerns that ethically suspect banking behavior is occurring. As consumers, governments and public interest groups increasingly expect the business community to engage in socially responsible activities, coherence between the legal structure and business procedures goes far in promoting long-term success (Shun and Yam 2011). Realigning depositors' rights with the legal obligations that banks must follow would do much to get us to such a position.

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ⁱⁱ Other areas of finance and investing besides banking are also receiving renewed ethical attention. Verstegen and Dennis (2003) develop a research agenda exploring the ethical issues of pension funds. Donaldson (2008) deals with the ethics of hedge funds, specifically focusing on their opacity.

ⁱⁱⁱ Menger (1871: chap 8; 1892) tells the traditional account (based on historical, conjectural, theoretical and anecdotal evidence) of how money emerges from a moneyless society. Menger (1909) further notes that while money is not a creature of the state, the state can “perfect” it through legal tender laws by ensuring its demand.

^{iv} We abstract from other financial services that banks may offer – investment or insurance services, for example. The omission of these facets does not impair the analysis at hand, and it simplifies the consequent legal and ethical assessment.

^v A good lent for an unlimited time period would be considered a gift (Bagus and Howden 2012). One such historical example of this financial product are British gilts known as “consols” – “bonds” of perpetual maturity first issued by the British government in 1751. Though “perpetual” in name (and theory), the bonds were subject to frequent alterations in both their earned interest rate, and their actual maturity (in practice being redeemed early at the option of the British Treasury).

^{vi} While the bank may waive the interest payment for these loans out of reasons of attracting new business or friendliness, this will not negate the essential occurrence of the interest payment. It will instead represent a loss for the bank that will be compensated (or expected to be so) through other avenues of business. Bagus and Howden (2009: 400fn5) make a similar point.

^{vii} Note that any use of a deposited good is a violation of the contract, even if the good can be returned when the depositor asks for it. If a painting is deposited with a depository that appropriates the painting for an exhibition, there is a misappropriation. It might be that the depositor asks for his painting only after the end of the exhibition and it can be returned on demand. Yet even in this case where the depositor is not aware of the act, a misappropriation occurs with a commensurate violation of the contract’s safekeeping obligation.

^{viii} Throughout this paper we use the word deposit interchangeably for regular and irregular deposits. Deposits involving money are always irregular, though the safekeeping obligation of the depository is identical in each case.

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

^x Utilitarian arguments supporting fractional reserve banking face an additional problematic aspect due to the claimed benefits of loaning out reserves. Hayek (1935), Mises (1949) and Garrison (2001) look at the “malinvestment” of capital that this practice creates – investments are made in avenues not aligned with consumer preferences, but are instead aligned with banking sector preferences through the credit system. Hülsmann (1998) argues that fractional reserve banking leads to entrepreneurial error, as the illusion of an increased amount of savings in the economy leads entrepreneurs to make plans in excess of what the resource constraint allows for. Bagus (2008) looks to fractional reserve banking as a source of asset price bubbles. Howden (2010b) argues that a movement away from production-based economies and into finance-based economies is caused by an increasingly profitable financial sector using deposited reserves for funding. All of these cases claim that the benefits of the fractional reserve banking system are overstated, at least in the long run, as they give rise to an unsustainable boom leading to an unavoidable bust to reallocate resources.

^{xi} Since the modern financial system operates under a much different setting than these systems of past, altering the legal system to approximate these conditions would entail much work. Huerta de Soto (2006: chap. 9) sets forth a three-step plan to alter the current schema of banking laws to facilitate a shift towards a more ethical banking system.