The ethicality of fractional reserve banking: ontological investigations

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1. Introduction

The financial and economic crisis that started in 2008 has sparked a protracted debate on the ethicality, legal justifiability and economic sustainability of several aspects of our current financial system. One of the debates has centred on the issue of fractional reserve banking (FRB) – see the recent contributions by Bagus, Gabriel & Howden (2015; 2015a) for the opponents, and Evans (2014; 2015) for a proponent. Both the complex interdisciplinary nature of that debate as well as its possible ramifications given the central role of fractional reserve banking in our current financial system, have likely contributed to its longevity. A referendum to abolish FRB will be held in Switzerland – the Vollgeldinitiative – probably in the year 2018.

This paper argues that one important component of the problem has thus far been missing, namely social ontology – the study of the fundamental nature and mode of existence of social and institutional reality (Searle 1995; Searle 2010). More precisely, the argument put forth is that the implicit ontological presuppositions on both sides of the debate play a crucial role in accepting or rejecting the legitimacy of FRB.

In the first part of the paper, I will argue why the debate is in need of explicitly ontological investigations, and briefly explain what social ontology is and how it can play a role in the social sciences. In the second part I will develop a general ontology of money and banking, and in the third and final part I will show how these ontological presuppositions affect specific issues in the debate on fractional reserve banking.

2. On (social) ontology

Arguments for an ontological turn in the social sciences – i.e. an increased attentiveness to the role played by ontological presuppositions and commitments in social scientific theorizing – are not new. Searle holds that "it will deepen our understanding of social phenomena generally and help our research in the social sciences" (Searle 2010, 5) because "an understanding of the basic ontology of any discipline will deepen the understanding of issues within that discipline." (ibid.). Tony Lawson has offered elaborate arguments for an ontological turn in economics (1997; 2003; 2015),[1] and also did so specifically for the recent economic crisis (Lawson 2009).

Various competing views exist as to what ontological theorizing for the social sciences consists of. In the opening remarks by Searle, he aims at the study of "the fundamental nature and mode of existence [...] of human social institutional reality." (Searle 2010, ix), although his preferred label is 'the philosophy of society' (Searle 2010, 5) instead of social ontology. Brian Epstein recently noted that "social metaphysics" might have been a better label than "social ontology" (Epstein 2016, 149). Drawing on the Quinean distinction between metaphysics and ontology, (social) ontology has a more limited scope of providing an inventory of all that exists (in the social realm), whereas metaphysics answers the further and wider question on the nature and mode of existence of those things.[2] Although I concur with Epstein's suggestion for a wider scope, his limitation of social-ontology-as-metaphysics to "ontological building relations" (ibid.) besides ontological existence claims, seems to be unnecessarily restrictive. Having an inventory of everything that exists, including their 'building relations', still doesn't

[1] See Fullbrook (2009) for a series of critical discussions with Lawson's ideas, and Pratten (2014) for a recent overview of the ontological turn in economics.

[2] For a clear statement of the inventory-approach, see Baker (2015). For a discussion of the relation between the two domains, see Varzi (2011), and for an outright rejection of the very distinction, see Bottani (2014).

answer the question *what kind of a thing* entity x or y is, i.e. what its fundamental nature and mode of existence is. The distinction between social ontology and social metaphysics can then be constructed as the difference between the question *whether* a thing is, and *what* a thing is. Tony Lawson's (2014) distinction between (social) philosophical ontology and (social) scientific ontology mirrors this proposed distinction between social metaphysics and social ontology quite closely. Since 'social ontology' is the more widely used term for what is often both a matter of ontology as well as metaphysics, I will stick to that usage here. The goal of this paper is to demonstrate the fruitfulness of such an ontological turn for the case of fractional reserve banking.

As a first note, the FRB debate is already heavily characterized by philosophical arguments. For example, Yeager claims that opponents of FRB use "essentialist" arguments (the scare quotes are his), an intellectual practice which supposes that "words label definite elements of reality about which we can obtain knowledge by brooding over these words" (Yeager 2010, 185). Although he refers to a short article by Smith (1994) on the link between Aristotelian essentialism and the Austrian school of economics, he doesn't develop this connection further.[3] Yeager himself seems to hold a nominalist position for which these arguments are merely about "words and classifications" (Yeager 2010, 183).

Evans has offered similarly anti-essentialist remarks on the philosophy of language – "language is a spontaneous order in which the meaning is its use" (Evans 2014, 363) – and has joined Yeager in reducing much of the opponents' arguments to a matter of an outdated terminology or classification (Evans 2015, 623). The very same argument is echoed by Cachanosky:

> "The fact, [...] that a demand deposit contract does not fit in a given terminology does not imply that such contract is impossible, illegitimate or misbegotten; on the contrary, it implies that such terminology is outdated, imprecise or limited." (Cachanosky 2011, 221)

A certain kind of 'essentialism' is indeed present in the literature opposing FRB. For example, opponents claim that they want to "analyze the essence and nature of deposit and loan contracts" (Bagus, Howden, and Block 2013, 627) that "In essence, the practice of fractional-reserve banking involves a misalignment of the economic goals of depositors and depositories" (Bagus and Howden 2013, 239), and that "We are not debating names but rather real entities—the essences of contracts." (Bagus, Howden, and Gabriel 2015a, 210)

This last quote can already be used as a counterargument to proponents of FRB like Yeager and Evans who seem to think that the debate is merely about the question to what extent FRB fits categories and labels like "loans" and "deposits". No sane person holds that *every* word has a one-to-one correspondence with some kind of real (social) entity, event or property. But that fact doesn't preclude the possibility that *some* words and categories *do* indeed track important distinctions in reality. The erudition brought to bear on the issue by Huerta de Soto but brushed aside by Yeager,[4] is not just a scholarly exercise in legal history and etymology. It is meant to show precisely that in *this* particular case, *that* particular *verbal* distinction between a loan and a deposit *does* track an important distinction in institutional and economic *reality* – in this particular case, these words do carve nature at its joints.

Arguments relying on the nature or essence of a certain kind of contract or legal phenomenon do not necessarily presuppose a limited or fixed set of possible legal entities. Of course there can be

[3] There is a significant literature on the philosophy and philosophical background of the Austrian school, in particular its connections with Aristotelian realism cf. Smith (1990), Kauder (1958), Gordon (1996).

[4] "One such argument shows great erudition about the legal, institutional, and historical status of facets of money and banking. Yet the erudition displayed may be irrelevant, not adding up to a coherent argument for the asserted conclusion. No amount of erudition can make up for lack of relevance." (Yeager 2010, 189). He is referring to Huerta de Soto (2009).

legal innovations previous jurists never thought of, but that doesn't mean that there couldn't be certain fundamental rules or principles any new legal entity or construct has to abide by. The argument by the opponents of FRB is not that a particular sentence is not a proper English sentence because it was never uttered before, but because it violates the rules of English grammar: "Legal rules evolved spontaneously based on timeless, or logical, principles [...] A valid contract must fulfill traditional legal principles, in Roman times, today and in 1000 years." (Bagus, Howden, and Gabriel 2015b, 8) Whether there really is such a thing as a 'grammar' for banking contracts, what its nature and mode of existence is, and how it affects FRB, is precisely the ontological question that is at stake.

Simply presupposing the existence of 'essences' of contracts, just as much as presupposing their non-existence, might be a harmless ontological working hypothesis, unless and until it starts becoming the source of disagreements among social scientists. In those cases, an explicit consideration of those presuppositions is both useful and necessary. The next two sections will deal with how a specific difference in a metaphysical question is reflected in the social scientific debates on FRB. While this in itself does not settle either the metaphysical or the social scientific issue, it does substantiate the claim that social ontological ideas, 'both when they are right and when they are wrong, are more powerful than is commonly understood'.[5]

3. The ontology of money and banking

3.1. The ontology of money

Since the debate is specifically about monetary deposits, it is necessary to briefly address the ontology of money itself, which is repeatedly used by Searle to illustrate his theory of institutional reality. What is, according to Searle, an ordinary banknote, ontologically speaking? Prima facie, it would seem to be some kind of 'social object', and in a colloquial sense it certainly is. But Searle adds the following note on the use of the word 'object':

> "in a sense, *the object is just the continuous possibility of the activity*. A twenty dollar bill, for example, is a standing possibility of paying for something." (Searle 1995, 36 original emphasis)

I take this 'in a sense' to be the properly *metaphysical* sense social ontology ought to investigate. On this reading, a bill or coin is not primarily a physical or social – or, in the case of electronic money, abstract – 'object', but its fundamental nature and mode of existence is a continuous or standing possibility of an activity, namely paying. This continuous possibility of the activity is not some 'brooding omnipresence' in the sky, or an essence mysteriously residing within banknotes, but something that always bottoms out in concrete persons, as he adds further in the book:

[5] The role of social ontology compared to the social sciences can thus be seen along the same famous lines as Keynes saw the role of social scientific ideas towards public policy: "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. Not, indeed, immediately, but after a certain interval; for in the field of economic and political philosophy there are not many who are influenced by new theories after they are twenty-five or thirty years of age, so that the ideas which civil servants and politicians and even agitators apply to current events are not likely to be the newest. But, soon or late, it is ideas, not vested interests, which are dangerous for good or evil." (Keynes 1936, 383–384)

> “It is not the five dollar bill as an object that matters, but rather that the *possessor* of the five dollar bill now has a certain *power* that he or she did not otherwise have." (Searle 1995, 97 original emphasis)

Hence, although Searle spends most of his time discussing *how* things like banknotes *acquire* their institutional status – and especially the role of collective intentionality in that process – the picture we get when we sift his ontological commitments out of his work strongly suggests that the 'nature and mode of existence' of money is that of a continuous or standing possibility, i.e. a *power* for a particular person to acquire goods.

Moreover, this very same characterization of the ontology of money can also be found in other authors besides Searle. For example, although Smit, Buekens and du Plessis (2011; 2014) have fundamentally criticized Searle’s account of how and why money becomes money, they reach almost the exact same conclusion when it comes to the ontology of money, i.e. as being a ‘capacity’ or ‘ability’:

> “The X-term in our formula [the paper bill in Searle's example] should be understood as referring to the *ability* to acquire the commodities money can buy. […] This *ability* is what is *fundamentally* being exchanged.” (Smit, Buekens, and du Plessis 2011, 19 emphasis added)

Although Smit et al. explicitly refrain from any strong metaphysical reading of what this ‘ability’ might be, both accounts can be read as saying that, ontologically, money *is* the very power or ability of being exchanged for other goods or services. Despite its numerous other functions, its many historical manifestations and evolutions, this is what the 'fundamental nature' and 'mode of existence' of money is. Tieffenbach’s (2010) Mengerian account of money also hinges on the dispositional notion of the ‘saleability’ of a good, and Lawson (2012, 378 ff.) stresses the distinction between cash in itself and the power relations for which cash is merely a placeholder. A social ontology of money would therefore have to crucially rely on things like powers, abilities or dispositions. The next section will look at how such an ontology can tie in with an ontology of banking.

3.2. The ontology of loans and deposits

Within the literature opposing FRB, Huerta de Soto (2009) is undoubtedly the most recent and elaborate exposition of the issue, marked by an impressive amount of interdisciplinary scholarship – integrating legal history and economic theory. Given that his work is the synthesis of many preceding work critical of FRB, and the central place of his work within the contemporary literature, what follows will rely mainly on his account in order to assess the ontological commitments of FRB-opponents.

His argument rests on two crucial distinctions, both of which rely on distinctions between dispositional properties. The first distinction is the one between fungible goods and non-fungible goods. Fungible goods are goods that can perform the same function (from the Latin verb 'fungi') regardless of the fact that (small) differences in the actual physical objects may exist. No two banknotes or grains of wheat are absolutely physically the same with an infinite degree of precision, but they are fungible as long as they can fulfill the same function – i.e. have the same powers or dispositions, like being acceptable as a medium of exchange to buy something, or as a basic ingredient to make bread. Hence, what makes two numerically distinct goods nevertheless fungible is that they have the same relevant dispositional properties.

The second distinction he introduces is the one between a loan and a deposit:

> "Whereas loan contracts […] entail the transfer of the availability of the good, which shifts from the lender to the borrower for the duration of the term, another type of contract, the deposit contract, requires that *the availability of the good not be transferred*." (Huerta de Soto 2009, 4 original emphasis)

Availability is again a dispositional term, referring to what *can* be done with a certain good by a certain person, i.e. whether or not it is indeed a standing or continuous possibility for an activity, and hence a real power for a certain person. As Yeager rightly noted, "Huerta de Soto makes much of terms and topics such as [...] what the "availability" of deposited funds means" (Yeager 2010, 185). Much of Huerta de Soto's argument indeed rests on this specific notion of "availability", though it is, *pace* Yeager, not about the meaning of these terms but about the ontology they are referring to or are presupposing.

These two distinctions give us a quadrant of four options, namely a loan of non-fungible goods (commodatum loan), a loan of fungible goods (mutuum loan), a deposit of non-fungible goods (regular deposit) or a deposit of fungible goods (irregular deposit). The more intuitive terminology I would propose is that of specific vs. fungible, and loan vs. deposit.

	transfer of availability	retainment of availability
specific good	commodatum loan / specific loan	regular deposit / specific deposit
fungible good	mutuum loan / fungible loan	irregular deposit / fungible deposit

Since money is a fungible good *par excellence*, the discussion about FRB concerns the bottom right corner: what is the ontology of an irregular deposit? What is its fundamental nature and mode of existence?

In the case of a specific loan, you lend out both the specific good itself as well as its availability, i.e. the standing possibility of its activity, the power it gives to the possessor. At the end of the term you get the same specific good back, with the same set of powers associated with it (e.g. it is not damaged). You lend out the Rubens painting and you want the exact same Rubens painting back, undamaged.

In the case of a fungible loan, you lend out both the specific good itself as well as its availability. At the end of the term you (probably) get a different specific good back, but with the same set of powers as the object you lent out. You lend out an egg, and you get an egg back of the same quality and quantity. It doesn't have to be the very same egg.

In the case of a specific deposit, you place a specific object under someone else's care, in someone else's possession. However, you retain the availability of the good, i.e. the standing possibility of its activity, the powers it gives to the possessor. You are still the only person who can do something with it, the depositary is only there to keep it available to you. The depositary cannot take it away because it is that specific good you want to have available. You deposit your car somewhere, and you don't want the valet to use it for pleasure driving in the meantime.

In the case of a fungible deposit, you hand over the specific good, but you retain its availability, i.e. the set of powers it gives to its possessor, the standing possibility of the activity of the object. However, since it is a fungible object, what you have deposited, what remains your property and what you can get back at any time, is precisely that set of powers, even though it can be a different specific good. Huerta de Soto indeed considers this very option of framing the issue:

> "Our student César Martínez Meseguer argues convincingly that another adequate solution to our problem is to consider that in the irregular deposit there is no true transference of ownership, but rather that the concept of ownership refers abstractly

> to the tantundem or quantity of goods deposited and as such always remains in favor of the depositor and is not transferred." (Huerta de Soto 2009, 5)

What you own and deposit is the availability of the money and the power it thereby gives to the owner. Coins, banknotes or electronic money are merely ways to record and transfer the purchasing power of money. That is precisely why money is the fungible good *par excellence*.

We are now in a position to spell out the ontology advanced by Huerta de Soto's account. A loan is a temporal shift of the availability (i.e. the set of powers related to the continuous possibility of an activity) of that good, and the possession of that good, from one person to another. Recall Searle's remark that the possibility of the activity of a good always bottoms out in persons having a certain power. In the case of a loan, we shift the set of powers of a certain good during a certain period from one person to another. In the case of a specific loan, at the end of the loan period the numerically identical set of powers is returned – the haecceity or 'thisness' has to stay the same. In the case of a fungible loan, the specific object doesn't matter, only that it has the same quality and quantity of powers – only the quiddity or 'whatness' has to stay the same.

In the case of a specific deposit, the specific good itself is transferred from one person to another, but not the availability of that good, i.e. the set of powers of that good. In the case of physical powers or dispositions, it would seem rather impossible to separate the fragility of a vase from the vase itself. In the institutional realm however, people can quite easily acquire or lose or transfer powers (e.g. being elected president of the US, getting married, selling a house, ...) with just the stroke of a pen. Although what is *manifest* in both the case of a specific loan as well as a specific deposit – person A handing over a thing to person B – what is *ontologically* at stake is something quite different. In the case of a specific loan, both the specific thing itself as well as its availability – its set of powers or 'standing possibility of being used' – is transferred. In the case of a specific deposit, it is just the actual thing that is transferred, but not its accompanying set of powers – its availability as it bottoms out in a particular person – which stays with the depositor. The numerical identity of the thing and its powers is guaranteed at all time.

In the case of a fungible deposit however, the specific thing is transferred, and the availability that is retained applies only to a fungible set of powers, not to the specific object that was originally handed over. The haecceity of the good is not part of the deposit, only the quiddity is.

Hence, loans and deposits ontologically re-arrange when and to whom the powers of a good 'bottom out' in powers for specific persons. A loan temporarily transfers the availability of a good (as well as the physical good itself) from person A to person B, for a loan distinguishes a time period T during which the ability to use the good resides in person B, whereas before and after T, the ability resides in person A. The necessary temporal differentiation in the case of a loan is also repeatedly stressed by Huerta de Soto, e.g.: "*Without the explicit or implicit establishment of a fixed term, the mutuum contract or loan cannot exist*." (Huerta de Soto 2009, 3–4 original emphasis). For if there were no point in time at which the availability of a good returns to the original owner, it would be a gift,[6] not a loan. The difference between a specific and a fungible loan rests on whether the haecceity or the quiddity of the good is considered, respectively. A deposit transfers the physical good from person A to person B but the availability of the good stays with person A. The physical connection between the good and its possibilities is severed. A deposit distinguishes the person where the availability of the good is present (e.g. through a signature of the depositor, or a note issued by the depositary) and the person where the physical good itself is actually present (e.g. in the vault of the depositary). The distinction between

[6] "A contract of infinite maturity (i.e., one that never requires repayment) is what we commonly refer to as a "gift"." (Bagus and Howden 2012, 296).

fungible and specific goods applies here as well. The next part applies these distinctions to the ontology of FRB.

4. The ontology of fractional reserve banking

4.1. Why FRB can occur

A social ontology of powers can also be applied to non-fungible goods if we construct the difference between owning goods and owning money as one between first order powers and second order (i.e. iterated) powers. People have a first order power for speaking their native language, and a second order power for speaking any other language as well, i.e. a power to acquire a power. If you own a Rubens painting, you have a first order power, namely a range of 'standing possibilities' for doing things with that particular painting – hanging it in another room, putting it in a safe, selling it, etc. If you own (enough) money, you have a second-order power, a standing possibility of acquiring that set of standing possibilities related to that Rubens painting – or to a staggering range of other goods as well.

The problem is that a representation of money is just as good as money itself, whereas a representation of a Rubens painting is not just as good as the painting. Money is a second-order power, and a note that represents money has just the same power as money itself. A representation of money is not a further 'third order' iterated power in the same sense that a power to acquire a language is an iterated power or money is an iterated power towards the powers of an object. You cannot play the Moonlight Sonata with a bunch of banknotes, but you can buy a piano with a bunch of banknotes or a cheque just as easily as with a bag of gold in your vault. A representation of money can acquire the same dispositional properties as money itself, and thereby become almost literally 'as good as gold'. That is why monetary deposits are 'lying idle', presumably much more so than wheat or oil deposits, namely because a claim on money has the same powers as money in a way that a claim on oil doesn't, and something like FRB can occur.

Here is Searle's version of the standard story of how the power of money was 'transferred' to paper:

> "The story told about medieval Europe is that bankers would accept gold and store it for safekeeping, and in return for the gold they issued paper certificates to the depositors of the gold. […] A stroke of genius occurred when somebody figured out that we can increase the supply of money simply by issuing more certificates than we have gold. As long as the certificates continue to function, as long as they have a collectively imposed function that continues to be collectively accepted, the certificates are, as they say, as good as gold." (Searle 1995, 43)

This brings us to the crux of the matter, namely the ontology of fractionally backed monetary deposits. Are these certificates indeed 'as good as gold' because the dispositional properties of being able to buy and sell with these certificates have been successfully transferred to them? Is 'continuing to function' indeed the only requirement? A preliminary way to construe the difference between proponents and opponents of FRB is that whereas both might accept all of the preceding account, the former would see the dispositional properties at stake more in a free-floating manner, and the latter in a grounded manner. What makes something money or a deposit for the former is that something hic et nunc functions as money, has the dispositional properties of money or a deposit. What makes something money or a deposit for the latter is that it *really* has the dispositional properties of money, in a sense to be fleshed out in the next section. For the former, there is nothing 'real' over and beyond what is or is not present and actual.[7] The next section looks at the precise metaphysical differences at play.

4.2. The ontology of dispositions and FRB deposits

What happens when a monetary deposit has only a fractional reserve? In the case of a specific deposit, temporarily taking away part or all of the deposit would clearly violate the depositor's right to both the specific good and its availability. However, since a monetary deposit is a fungible deposit, the depositor only retains the availability of the same set of powers, so any other good would do as well. Starting from Searle's standard story, your certificate is the certificate of ownership of a specific amount and quality of gold, so any gold would do. If 100 people each deposit one golden coin in the bank, and the bank lends out 90 of these golden coins, is that a violation of your ownership rights or not? Consider how the two opposing intuitions are at work on this issue.

The people in favor of FRB argue that there is no problem, since in the overwhelming amount of cases, you can indeed get your amount of gold back when you present yourself with a certificate. If that certificate gives you the power to acquire a certain amount of gold, experience might teach us for decades or even centuries in a row that those certificates do indeed possess that power. What matters is that *when you actually present* such a certificate, *you get your gold.* And that might very well turn out to be the case. As long as the reserves at hand are able to satisfy the *actual* demands made, these certificates apparently really do have the power they are supposed to have, and everything is in order. For them, it is only a practical and pragmatic matter how to deal with cases of emergency like bank runs and other kinds of liquidity crisis, one that can be solved with option clauses (cf. infra), bank insurance, central banks as a lender of last resort, etc. Whether or not these certificates are *really* redeemable is not important, what is important is whether they are *actually* redeemable when a request is made.

But the authors opposed to FRB start from a different intuition. What happens when a monetary deposit is only fractionally backed is a case of fraud, because these certificates are supposed to represent money that is really there. If only a fraction of them is really backed, all others are not backed by gold, hence do not really have the kind of power the depositor nevertheless retained when he made his deposit. Hence the depositary has violated the contract or essential purpose of a deposit. If you have 100 certificates and only 10 coins, all certificates can be exchanged for gold, but not all of them at the same time. The predicate 'is exchangeable for gold' applies to all certificates, but not to all certificates at the same time, and it is undetermined to which it does and to which it does not apply. Whether or not these certificates are *actually* presented for redemption is not important, what is important is whether they are *really* redeemable, whether or not a request is made.

These two opposing points of view reveal opposing social ontologies on the metaphysics of powers, and mirrors the properly metaphysical debate about the nature of powers and dispositions. Dispositions of the ordinary, physical kind (fragility, solubility, etc.) are regarded in some corners of philosophy with suspicion, because they are not empirically observable. You cannot see the fragility of a vase before it is broken, or taste the solubility of sugar before it is dissolved in a cup of tea. An attempt was therefore made to eliminate powers and dispositions from our ontology, by saying that disposition-ascriptions are merely a shorthand way of saying what would happen on the condition of something else happening. Saying that a vase is fragile is merely saying that a vase would break if

[7] Cf. the criticism of 'actualism' in much of the work of Lawson and the related tradition of social ontology: "actualism, i.e. the thesis that reality can be reduced to the actual course of events and states of affairs, is untenable, [and] we must recognise in addition a realm of underlying structures, powers, mechanisms, tendencies and so forth." (Lawson 2003, 238)

smashed with a hammer. There are no unobservable things or properties like powers and dispositions. However, several thought experiments were delivered that showed how the possession of a dispositional property does not necessarily coincide with the applicability of the conditional analysis that was proposed.

Some of the ways to do this were through finks (Martin 1994), masks (Johnston 1992) and antidotes (Bird 1998). A fink activates or removes a disposition upon the occurrence of the trigger. Say you have an unbreakable vase but a sorcerer automatically makes it fragile at the very moment when it is hit by a hammer. Although the vase is not fragile, the 'if hit by a hammer, it will break' conditional analysis does hold, so it fails to capture the dispositional property of fragility. A mask is, for example, styrofoam around the vase. Although the vase is still fragile, if struck with a hammer, it will not break due to the styrofoam 'masking' the fragile disposition. Again, saying that a vase is fragile seems to be something more than merely saying that a vase will break if struck by a hammer. Finally, an antidote acts as a counterbalance to the manifestation of a disposition. If you ingest a deadly poison like arsenic, quickly ingesting dimercaprol will prevent you from dying. Although the poison really has the disposition of being lethal and really is manifesting its lethal power, the antidote falsifies the conditional analysis of 'if ingested, person will die'.

Let us now label the two opposing groups the CA group – of people who think all dispositional talk can be reduced via that kind of Conditional Analysis – and the other group the DR group – the Dispositional Realism group which holds that powers and dispositions are real and cannot be reduced to their conditional manifestation – i.e. that powers are fully real even when not manifest. Let us also call the Proponents of FRB the PF group and Opponents of FRB the OF group. The claim is now that PF people exhibit a CA position, and OF people a DR position, that there is a strong tendency for the two groups of positions to cluster together, because of a tendency of scientific and ontological commitments to reach a reflective equilibrium (Mumford and Anjum 2011, 215).

If we apply CA to FRB, the disposition-ascription 'is redeemable' does indeed hold for all certificates, since upon presenting them for redemption, they are in fact redeemed. Whether the bank had ample reserves left or had to scramble for the last few coins is irrelevant, the only thing that matters for the disposition-ascription 'is redeemable' is whether or not it is *in fact* redeemed when the trigger condition (i.e. presenting the certificate to the bank for redemption) is present. Hence, according to the CA-PF position, there is simply nothing more to the disposition-ascription 'is redeemable' or 'is available' than whether or not it satisfies the conditional analysis of 'if the certificate is presented to the depositary, the gold is available'. Whether beyond that all the gold for all the certificates is 'really there' and 'really available' is, not a meaningful question – much ado indeed over words and classifications – simply because they have no irreducible powers and dispositions in their ontology. There is no fraud or theft for the very simple reason that *there is nothing there* to steal or embezzle – which is an ontological claim. Or if there is something there, it is simply not something you *can* steal or embezzle, for the same reason that you cannot steal a number or offend Winnie the Pooh – a metaphysical claim.

On the other hand, if we apply DR to FRB, the disposition-ascription 'is redeemable' or 'is available' fails as soon as a less than 100% reserve is present in the bank or in the vault of the depositary. For DR-OF, powers are just as real (albeit in a different mode of existence) as the gold in the vault and the paper certificates in one's wallet. If a bank takes just one golden coin away, or issues just one gold certificate in excess of its gold reserves, it is committing theft and fraud respectively. There is now really a certificate that is no longer redeemable, for which the gold is not available, because there can be and has to be a one-on-one correspondence between these certificates and gold or money being 'really available'. The question is not whether this particular certificate happens to be redeemable upon effective demand, but whether it 'really' is redeemable, regardless of how, when and whether it is *in fact* presented for redemption. The first line in the creed of DR is precisely that dispositions are fully real, even when not – even when never – manifest. The main distinction between these two metaphysical positions was keenly noted by Cheng:

> "A main contrast between a realist [DR] view and a traditional [CA] one is that, while the latter construes a disposition as a mere *possibilium* and its manifestations as actual and real, the former regards a disposition as actual and its manifestations as mere *possibilia*." (Cheng 2010, 211)

Hence, the CA position is that a disposition is the mere possibility of the actual manifestation. If that actual manifestation is very unlikely because measures are taken to prevent it from occurring, the disposition itself likewise almost vanishes into non-existence. The DR position is that the disposition itself is first and foremost real and actual, even though its manifestation might be very unlikely or will never occur. This difference is clearly at play in the FRB debate. Two PF authors, George Selgin and Lawrence White, write the following in reconstructing the OF position:

> "Perhaps [the OF] view is that, even when in practice a fractional-reserve bank for years fulfills every redemption request that actually comes to it, nonetheless its notes should *really* be considered *ir*redeemable because the bank *would* default *if* all its notes and demand deposits were presented for redemption simultaneously." (Selgin and White 1996, 85 original emphasis)

For them, the irredeemability of the banknotes is clearly just a mere possibility, because the only thing that would be 'really real' is the event of an actual massive withdrawal. Note also how they stress that only the manifestation of a redemption request is relevant: "even when *in practice* a fractional-reserve bank *for years* fulfills *every redemption request* that *actually* comes to it ...". Garrigues, quoted by Huerta de Soto, brings out the contrast between the two kinds of reasoning even more clearly. On the one hand, he admits the following:

> "this dual availability is precisely the reason it is difficult to formulate a legal description of the contract, because availability in favor of the depositor, a key feature of deposits, harmonizes poorly with availability in favor of the bank." (Garrigues, quoted in Huerta de Soto 2009, 138)

This is the ontology of "availability" of the DR-OF position. Taking "availability" in its realist sense of a certain power or set of power, it can only "bottom out" in either the person of the depositor or in the person of the banker. It is a real thing, and it must either belong to the one or to the other. Saying that it belongs to both, or is available to both, is for the DR-OF een impossible kind of bilocation, a permanent miracle they cannot believe in. But then Huerta de Soto quotes Garrigues again, this time displaying the CA-PF line of reasoning:

> "in bank deposits, the element of custody is replaced by the technical element of calculating the probability of deposit withdrawals. In turn, this calculation depends on the fact that bank deposits are made on a large-scale." (Garrigues, quoted in Huerta de Soto 2009, 148)

Hence, the custody of the 'real availability' of the DR-OF position is abandoned, and there is a shift to the *actual* occurrence of the trigger or stimulus condition of the disposition – a shift to the probability of deposit withdrawals *actually made* as favored by the CA-PF position.

Whether or not these certificates are considered to be 'redeemable' and the deposited funds 'available' therefore depends on the underlying ontology of powers and dispositions used by both parties. The anti-metaphysical line of thinking that undergirded the original attempt to reduce dispositions away via the conditional analysis is moreover also found in the other anti-metaphysical remarks made by the PF authors in the first section.

4.3. Option clauses and insurance

Two other key arguments in the debate further illustrate this underlying ontological difference, namely the case of option clauses and insurance companies. One way OF tries to bring out the problematic nature of FRB, as hinted at by the Selgin and White quote above, is to say that there is always the possibility that the fractional reserves would not be sufficient upon a sudden surge in demand, and necessarily so in the case where all depositors would simultaneously seek to redeem their banknotes. These cases would demonstrate what is wrong with FRB, but they generally fail to convince PF. For PF, a bank run does not illustrate the inherent flaws in the availability of monetary deposits under FRB, but is merely a practical problem of how to deal with these very exceptional cases that do indeed pose a risk to a FRB system. Option clauses are then one historically documented way of solving liquidity problems. Continuing our standard story, gold certificates would receive a note saying that the bank retains the right to ask for, e.g. a two weeks notice term. It can waive that right if there are sufficient reserves, but in case of a bank run it can invoke that right and liquidate enough assets in the meantime so as to be able to redeem all the certificates two weeks later.

To see how this aligns with the CA position, we have to make the disposition of the certificate a negative one – *ir*redeemable, *un*available. The debate between PF and OF is whether these disposition-ascriptions necessarily apply to FRB certificates (OF), or not (PF). The option clause is then parallel to the masking case. Although the notes are *really* irredeemable, because the gold is *really* unavailable, the option clauses kick in precisely at the moment when that disposition would otherwise have become manifest. For DR-OF, this merely masks the disposition, i.e. prevents it from manifesting, although it really is there and is quite problematic for other reasons.[8] The option clause is like styrofoam around the certificate, which the bank takes away when there are sufficient reserves, but leaves on if not, thus preventing the vase from breaking, or the irredeemability of the certificate from manifesting. For CA-PF on the other hand, if the presumed irredeemability of the certificate does not manifest itself when a request is made (because legally speaking the *actual* request is only made two weeks later), there is simply no irredeemability and no unavailability – and no problem with FRB or option clauses.

Another move made by PF to counter the OF argument of sudden massive withdrawals, is to argue that insurance companies face the same risk. If very unlikely events of massive widespread damages would occur, insurance companies might likewise face the problem of being unable to meet their contractual requirements. Since insurance companies are accepted by OF as ethically sound ventures, the inability of FRB banks to cope with this kind of very rare cases can likewise not be held against them. Again, for PF it is just a matter of what happens when the trigger conditions or stimulus conditions for the manifestation of dispositions occur. If, so he argues, OF has very high requirements about the 'strength' of a disposition even in very extreme and unlikely events, then we should also apply these highly unlikely test cases to other institutions, like insurance companies, who would face similar risks.

However, for DR-OF, the analogy fails from the start, because insurance companies and FRB banks have a different ontological status regardless of when and whether extreme cases do indeed occur. DR-OF argues that FRB banks are *always already* bankrupt, even though their bankruptcy only

[8] Huerta de Soto, for one, devotes a large part of his work to the argument that FRB is a very important causal contributor to financial crises due to the general instability it brings to the economic system as a whole, even if bank runs on particular banks can be avoided.

becomes manifest upon the event of a massive bank run. Insurance companies, on the other hand, only *become* bankrupt *upon* such a very chancy event. The distinction between the two cases is in their dispositional properties. Although in both cases the bankruptcy would *become* manifest upon a very unlikely event occurring, the bankruptcy of the FRB – with bankruptcy as a dispositional property – was always already the case before it became manifest, and will even be the case if it never will become manifest. For CA-PF, that probably sounds almost nonsensical.

5. Conclusion

The goal of this paper was to demonstrate the usefulness and importance of social ontology for the rather specific topic of fractional reserve banking. As has been shown, there is a strong parallel between the debate for and against dispositional realism, and the debate for and against FRB. From an ontology of dispositional realism, FRB is far more likely to be judged as being indeed problematic and even fraudulent. People critical of dispositional realism on the other hand, will have a far more lenient approach to FRB because of their ontologically different understanding of the key notions of availability and redeemability. As such, this might clarify and advance the debate by unearthing hitherto mostly hidden ontological assumptions that can now be independently assessed. Or, as others would perhaps be more prone to say, it will make a difficult debate even harder by entangling it with seemingly even more irresolvable metaphysical problems.

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