

The ontology of fractional reserve banking

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Abstract. The recent economic crisis has re-ignited the debate over the institution of fractional reserve banking (FRB) and its possible adverse economic effects. This paper brings a so far neglected aspect of the problem to the table, namely social ontology. After addressing the scope of social ontology in relation to social metaphysics, social science and FRB, a general ontological framework for money and banking is sketched and applied to the debate between Austrian opponents and proponents of FRB. It shows that the oppositions reflect metaphysical and ontological positions on the reality of powers and dispositions, namely that a realist position in the metaphysics of powers and dispositions tends to a critical position toward FRB, whereas a sceptical position on powers and dispositions leads to a favorable position toward FRB. A final section gives further examples of how these ontological presuppositions shape other arguments in the debate.

1. Introduction

The financial and economic crisis that started in 2008 has re-ignited the long-standing debate on the ethicality, legal justifiability and economic sustainability of fractional reserve banking (FRB) – see the recent contributions by opponents (Bagus *et al.*, 2015; Bagus *et al.*, 2015a, 2015b), and Evans (2014, 2015) for a proponent. Both the complex interdisciplinary nature of that debate – involving historical, economic, legal and moral arguments – as well as its possible ramifications given the central role of FRB in our current financial system, have undoubtedly contributed to its longevity and liveliness. A referendum to abolish FRB will be held in Switzerland – known as the ‘Vollgeld Initiative’ – 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), and that the implicit metaphysical and ontological presuppositions on both sides of the debate play a substantial role in accepting or rejecting the legitimacy of FRB. More precisely, the argument is that opponents tend to assume a realist metaphysics and ontology about powers and dispositions, and that

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proponents tend to be more sceptical about the metaphysical status of powers and dispositions – more as a mere figure of speech for what would *actually* happen if a disposition would manifest itself. In brief, there is a substantial link between the metaphysical position endorsing powers and an economic position opposing FRB on the one hand, and a metaphysical position rejecting powers and the economic position endorsing FRB on the other hand. The argument is not that this is a strictly necessary connection, merely that there is a strong tendency to connect the respective metaphysical and economic positions.

The next section offers some brief methodological considerations on social ontology compared to social metaphysics and social science. [Section 3](#) gives some general metaphysical preliminaries, which enables the presentation of the core argument about the ontology of FRB in the subsequent sections. The fourth section sketches a general ontology of money, [section 5](#) an ontology of banking. The sixth section deals with the ontology of FRB proper, and the final section gives some further examples of how these ontological presuppositions are influencing other arguments in the debate.

2. On social metaphysics, social ontology and social science

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, p.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). The goal of this paper is to demonstrate the fruitfulness of such an ontological turn for the specific case of FRB.

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, p.ix), although his preferred label is ‘the philosophy of society’ (Searle, 2010, p.5) instead of social ontology. Brian Epstein recently noted that ‘social metaphysics’ might have been a better label than ‘social ontology’ (Epstein, 2016, p.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

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.

of existence of those things.² Although Epstein's suggestion for a wider scope is laudable, his characterization of social-ontology-as-metaphysics as including '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 answer the question *what kind of a thing* entity *x* or *y* is, i.e. what its fundamental nature and mode of existence is. In sum, the distinction between social ontology and social metaphysics can then be constructed as the difference between the question *whether* a thing exists, and *what* a thing is. Lawson's (2014) distinction between (social) scientific ontology and (social) philosophical ontology mirrors this proposed distinction between social ontology and social metaphysics quite closely.

Social metaphysics and social ontology are then closely connected, and yet distinguished from each other. A materialist metaphysics will be less likely to accommodate an ontology wherein groups or the state exists than, say, an idealist one. On the other hand, both an anarchist and a statist might agree on the ontological proposition 'the state exists', but fundamentally disagree on its metaphysical status – e.g. a disastrous collective illusion on the one hand, or the necessary condition for civilized life on the other hand. Since 'social ontology' is the more widely used term for what is often both a matter of ontology as well as metaphysics, this usage will be maintained here, and the two will only be differentiated where needed.

This same relation of relative independence combined with relative dependence holds between social ontology and social science. The former clearly does not univocally determine the latter, and it is quite possible to do social science while abstracting from metaphysical and ontological questions, but sometimes the social ontology that is left implicit is really making a difference in the debate on the scientific level. At that moment, explicit attention to ontological questions is warranted and needed.

The rest of this paper, while far from dealing with these questions in any exhaustive manner, will show how a specific difference in the metaphysics of powers and dispositions is reflected in the implicit ontology of the social scientific debates on FRB. While this in itself does not settle either the metaphysical or the social scientific issue – e.g. because it abstracts from the correctness itself of the economic arguments and assumptions made by the parties of the debate – 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'.³

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).

3 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 toward 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

3. Metaphysical preliminaries

A preliminary way to construe the difference between proponents and opponents of FRB is that what makes something money or a deposit for the former is that something *hic et nunc* acts as money, whereas what makes something money or a deposit for the latter is that it *really* is money in a robust metaphysical sense that is very different from the understanding of the proponents. For the latter, there is nothing ‘real’ over and beyond what is or is not present and actual.⁴ For them, talking about powers and dispositions in relation to money and deposits – their availability or redeemability – is merely a way of expressing what has or what will or what might *actually* occur when these powers or dispositions manifest.

These two opposing points of view reveal opposing social ontologies on the metaphysics of powers, and mirrors the strictly 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, roughly starting with Hume and exemplified by logical positivism or more recently by neo-Humeans like David Lewis,⁵ 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 smashed with a hammer. There ‘are’ no unobservable things or properties like powers and dispositions beyond that. 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 a vase. Although

quite exempt from any intellectual influence, are usually the slaves of some defunct economist. [...] soon or late, it is ideas, not vested interests, which are dangerous for good or evil’. (Keynes, 1936, pp.383–384).

4 Cf. the criticism of ‘actualism’ in much of the work of Lawson and the related Cambridge 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, p.238).

5 I thank an anonymous referee of the JOIE for pressing me to refer to Lewis’s work here, cf. especially his work on conventions in Lewis (1969).

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’.

The fundamental distinction between these two metaphysical positions was characterised by Cheng as follows:

A main contrast between a realist view and a traditional [sceptical] 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, p.211)

Hence, although both can, to a large extent, share the same terminology, they will differ over the ontological question of what really ‘exists’ (i.e. the disposition or its manifestation) because they disagree on the metaphysical question what the respective mode of existence of a disposition or its manifestation is. If not under stress, both sides might liberally agree that both dispositions and their manifestations ‘exist’, but if push comes to shove, for realists the disposition ‘really’ exists, whereas for sceptics only the manifestation ‘really’ exists. We can now look at how these presuppositions affect the debate over FRB.

4. 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, p.36, original emphasis)

This ‘in a sense’ is here taken to be the properly (social) *metaphysical* sense. 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:

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, p.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 try to sift his metaphysical commitments out of his work strongly suggests that the ‘nature and mode of existence’ of money is that of a continuous or standing possibility, more precisely a *power* for a particular person to acquire goods. Given the peculiar nature of money, this power is a multi-track (as opposed to a single-track) power, i.e. it is a power that can be manifested in a wide range of different ways, it is a standing possibility of paying for an immense set of goods and services.

This ‘bottoming out’ should not necessarily be understood in a reductive sense as if money is ultimately ‘nothing but’ certain properties of persons. Money is, like all of social reality, ontologically subjective in that it necessarily depends for its existence on the existence of human beings. Money is not something ‘over and above’ people, but neither is it reducible to them. Given a realist metaphysics of powers, a match and gunpowder do not have an explosion as a separate reality over and above them. The potential explosion ‘bottoms out’ in the match and the gunpowder – ‘it is not the explosion as an object that matters, but rather that the *match* now has a certain power that it did not otherwise (without the gunpowder) have’. Martin and Heil (1998) stress that (almost all) powers have reciprocal disposition partners for mutual manifestations. The explosion is a mutual manifestation of the match and the gunpowder as reciprocal disposition partners. In that way, all of institutional reality is ultimately (the possibility of) a mutual manifestation of persons as reciprocal disposition partners.

To be sure, Searle never explicitly endorses a realist metaphysics of powers that would include social powers – although various proposals in that direction are available, e.g. Groff (2013), Knight (2013), Lawson (2013), Lawson (2016), Witt (2013) – but certain statements of his can at least be easily read in this way:

In the same literal sense in which the president of the United States has certain powers defined by the Constitution, my car engine has a certain amount of power measured as horsepower. *There is no pun involved here.* The notion of power is the notion of a capacity, and for that reason, a power may exist without ever being used or exercised. I have never used the full horsepower of my car engine, and several of the powers of the president are seldom, if ever, exercised. (Searle, 2010, p.145, emphasis added)

How that could be reconciled with his naturalism that would far more readily grant the existence of physical and chemical powers than social ones is another question, but the weakest claim made here is not that Searle is endorsing such a metaphysics, but that a metaphysical reading of his statements about money

can be most easily made sense of in such a realist metaphysics of powers that includes social powers.

A stronger claim that Searle is implicitly committed to such a metaphysics could start from his claim that the ‘central span on the bridge from physics to society is collective intentionality’ (Searle, 1995, p.41) and to connect this to the physical intentionality thesis defending the close metaphysical connections between intentionality and dispositions – e.g. Bauer (2016), Borghini (2009), Molnar (2003), Place (1996). This could be seen as a further attempt to naturalize intentionality as well as social ontology with it, but it might also be used as a Trojan horse to arrive at a general non-naturalistic metaphysics – and social ontology with it – instead. Another route to connect Searle’s social ontology with a realist metaphysics of social powers might be the connection he makes between freedom, rationality and the gap in relation to social ontology, but that would again require substantial elaboration.⁶ In brief, the claim is not that Searle is endorsing a realist metaphysics of social powers, but that what he says is at least very congenial to it, and that he has interesting resources to use in elaborating such a realist metaphysics of social powers.

Moreover, this very same characterization of the ontology of money as a power can also be found in other authors besides Searle. For example, although Smit *et al.* (2011, 2014, 2016) 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 *et al.*, 2011, p.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 a power or ability of being exchanged for other goods or services. Although all goods and services have – e.g. through barter – to some degree this power to be exchanged, money is the purest form or instantiation of this power. Despite its numerous other functions, its many

⁶ The ‘gap’ is Searle’s term for the conscious experience of freedom, in the sense of being able to do otherwise: ‘The experience of freedom is peculiar to a certain sort of consciousness, the consciousness of deciding and acting in the gap. The concept of rationality is not the same concept as the concept of freedom, but their area of application is coextensive. The concept of rationality only applies to free actions because otherwise rationality would make no difference. Our institutional structures – property, universities, government, money, and so on – have evolved precisely under the presupposition of the gap, and institutional facts within those structures provide rational grounds for free actions. Without the gap, our deontic structures are meaningless. There is no point to a deontology in a universe that is totally mechanical’ (Searle, 2010, p.143). He develops this notion of the gap in connection to rationality more fully in Searle (2001).

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 with money being the purest form of this saleability or exchangeability. Lawson recently remarked in a similar vein that:

Money is the most liquid asset and can indeed be described as liquid (or as liquidity) in that (at least in a stable economy) it can be ‘sold’ for any goods and services instantly, at any time and place, with no *apparent* loss of value. (Lawson, 2016, p.973)

With money, ‘everything is possible’. Money is ‘omnipotent’ precisely because within the domain of social powers it can manifest itself as any good or service instantly, at any time and place. A social ontology of money would therefore have to crucially rely on things like powers, abilities or dispositions – these terms are used interchangeably in this paper. The next section looks at how such an ontology can tie in with an ontology of banking.

5. The ontology of loans and deposits

Within the literature opposing FRB, Huerta de Soto (2009) offers the most recent and elaborate exposition of the issue, integrating the legal historical arguments with economic theory. Given the central place of his work within the contemporary literature, what follows relies mainly on his account in order to assess the ontological commitments of the opponents of FRB.

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 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, p.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 noted, ‘Huerta de Soto makes much of terms and topics such as [...] what the “availability” of deposited funds means’ (Yeager, 2010, p.185). Much of Huerta de Soto’s argument indeed rests on this specific notion of ‘availability’, though it is not about the meaning of these terms, but rather about the ontology they are referring to or are presupposing.

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 most likely won’t 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, but it can be a different specific good.

These two distinctions give us a quadrant of four options, namely a loan of non-fungible goods (which Huerta de Soto refers to with the historical terminology of a *commodatum* loan), a loan of fungible goods (a *mutuum* loan), a deposit of non-fungible goods (regular deposit) or a deposit of fungible goods (irregular deposit):⁷

⁷ A mortgage loan is not present here because it is merely a way to secure a fungible loan (of money) by putting up as collateral the very thing for which the loan is used. A lender might also require the collateral to be deposited with him – e.g. pawnshops – whereby the lender automatically becomes depositary and

	Transfer of availability	Retention of availability
Specific good	Specific loan (commodatum loan)	Specific deposit (regular deposit)
Fungible good	Fungible loan (mutuum loan)	Fungible deposit (irregular deposit)

Since money is a fungible good *par excellence*, the problem of monetary deposits, and hence of FRB, concerns the bottom right corner: What is the ontology of an irregular deposit? What is its fundamental nature and mode of existence? Handing in a sealed bag of money would be a specific deposit, not a fungible one. The question is what it precisely means or implies ontologically and metaphysically to keep a fungible good available in a deposit.

Although Huerta de Soto characterizes the kind of transfer involved in a fungible deposit as a transfer of ownership – precisely because the depositor does not retain the availability of the *specific* goods – he notes another way of conceiving this bottom right corner that is more in line with an ontology of powers:

Our student César Martínez Meseguer argues convincingly that another adequate solution to our problem is to consider that in the irregular [fungible] 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, p.5)

In line with an ontology of powers, one can phrase this same point as saying that it is not the concept of ownership that somehow *refers abstractly* to the tantundem or quantity of goods, but that *what you own* is the *dispositional* (hence non-manifest) part of reality that consists of the set of powers or range of standing possibilities of that good. If you own a piano and you could play the Moonlight Sonata but Beethoven were still alive (and assuming for the sake of argument that he has full copyright over all performances), Beethoven would own the set of standing possibilities of your piano to play the Moonlight Sonata. Of the immense set of possible things you can do with a piano – and which you are allowed to do because you own it – Beethoven owns the subset consisting of all the possible performances of the Moonlight Sonata, and he can demand payment if you want to access that subset in just the same way as demanding payment to access a theater.

Hence, a social ontology of powers can also be applied to property rights. Owning something means owning the set of possible things you can do with it – first and foremost keeping it at your disposal. We can then construe the difference

the borrower depositor. But these examples merely connect the types of the basic scheme in a specific way, without affecting the distinctions made within that basic scheme.

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 set 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 first-order set of standing possibilities related to that Rubens painting – or to a staggering set or range of other goods as well.

What is moreover special about money as a fungible good is that a representation of money can be just as good as money itself, whereas a representation of flour is not just as good as flour. More precisely, a representation of money can have almost entirely the same set of standing possibilities as money itself, whereas a representation of flour hardly has any of the same possibilities as flour itself. 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 or a wire transfer 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’. Money can in a certain sense become anything (a piano, a haircut, . . .) and in a certain sense anything can become money (gold, copper, paper, traces on a computer disk, . . .). That is why monetary deposits can be ‘lying idle’, and something like FRB can occur:

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, p.43)

We are now in a position to spell out the ontology advanced in 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, as well as of 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 that specific identical set of powers is returned. In the case of a fungible loan, the specific object doesn’t matter, only that it has the same quality and quantity of powers.⁸

⁸ In traditional terminology, a specific loan considers the haecceity or ‘thisness’ of a good, a fungible loan only the quiddity or ‘whatness’ and quantity of the good.

In the case of a deposit, the good itself is transferred from one person to another, but not the availability of that good, i.e. the set of powers or range of possibilities of that good. You can leave your Lamborghini with the valet, but the valet only has the very limited possibility of parking the car and bringing it back. The entire range of possibilities of the car remains with you in the hotel or restaurant. 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.

Hence, 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 – seems entirely similar, 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.

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.⁹ What you own, what you deposit, and what you retain, is a set of standing possibilities of an activity. If you deposit a kilogram of wheat, what you retain is not the bag of flour but the set of standing possibilities of whatever you can do with one kilogram of flour – baking a bread, a cake, a pie or flouring the kitchen floor. If you deposit 100 euro’s, what you retain is not that bill or those computer bits in some cloud, but the set of standing possibilities of whatever you can buy for 100 euro’s – eating 10 pizza’s or enjoying one Paul Simon concert or buying 100 kilograms of flour (ignoring inflation for the sake of argument).

To sum up, loans and deposits ontologically rearrange 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, pp.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,

⁹ Again, the haecceity of the good is not part of the deposit, only the quiddity and quantity is.

not a loan.¹⁰ 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 fungible and specific goods applies here as well.

6. The ontology of fractional reserve banking

What happens when a monetary deposit only has 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 metaphysical and ontological positions are at work on this issue.

Proponents 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 to the bank, *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 really do have the power they are supposed to have, and everything is in order. Ultimately, what is *real* is only what is *actual*, and when you *actually* get your gold back, the certificate is *really* redeemable. 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. In determining whether these certificates are *really* redeemable, the question is whether they are *actually* redeemable when a request is made – because ultimately, what is real is what is actual or manifest.

But the opponents seem to start from a different metaphysical and hence ontological position, namely a realist one on the existence of powers and dispositions. What happens when a monetary deposit is only fractionally backed

¹⁰ 'A contract of infinite maturity (i.e. one that never requires repayment) is what we commonly refer to as a "gift"' (Bagus & Howden, 2012, p.296).

is *for them* a case of fraud, because these certificates are supposed to represent money – i.e. a set of powers – that is *really* there.¹¹ And realists see powers or dispositions as more real or more fundamental than their possible manifestation upon going to the bank. The power is always there, the manifestation is a mere possibility. Hence, something *really* happened, something has *really* been taken away that rightly belongs to the depositor if the power or disposition to redeem these 100 gold certificates has been altered. If only a fraction of the certificates is *really* backed, all others are *not* backed; hence, do not *really* have the kind of power the depositor nevertheless retained when he made his deposit. Hence, the depository has violated the contract or essential purpose of a deposit. He ought to have kept that power there, but he took it away. If you have 100 certificates and only 10 coins, all certificates can be exchanged for gold in that they are all equally fit for doing that at any point in time, but there is no point in time at which they can all be exchanged for gold. Whether or not these certificates are *actually* presented for redemption is not important for determining whether they are *really* redeemable. What is important is whether they are *redeemable*, whether or not a request is made.

For proponents of FRB, this might sound like an accusation of stealing the number four or torturing a unicorn. There *really are no unicorns* (except as a concept or fictional character) so *a fortiori* you cannot *really* torture them. They might happily tell a story about a unicorn being tortured, but they would be flabbergasted if PETA subsequently were to start a campaign against unicorn-torturing. Or, the metaphysical status of the number four is such that any claim that it has been stolen is simply absurd. Similarly, if dispositional terms like ‘redeemability’ or ‘availability’ simply refer to nothing else than to what actually happens when you actually go to the bank to redeem your certificate, it makes no sense to worry about fractional reserves threatening that redeemability – as long as there are enough reserves to meet *actual* demands, these certificates *really* are *redeemable*.

To them, 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. 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

11 Given the earlier point about powers bottoming out in actual people – and the non-reductionist sense in which this should be understood – this ‘really there’ should be read as saying that these certificates are reciprocal disposition partners for persons to mutually manifest the power of the money. Similarly, the power to open a door is ‘really there’ where the key is, even though it might require a person as a reciprocal disposition partner in order to manifest itself. Powers might require specific times, places, preceding or succeeding events, etc., as reciprocal disposition partners.

as Yeager (2010) claims – 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 at least an implicit ontological presupposition. 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 torture a unicorn – a metaphysical claim.

But for dispositional realists, 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 depository. For them, powers are just as real (albeit of a different nature or 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 *actually* presented for redemption. The first line in the creed of dispositional realism is precisely that dispositions are fully real, even when not – even when never – manifest.

For example, consider how two proponents, go about reconstructing the opposing position:

Perhaps [the opposing] 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 *irredeemable* because the bank *would* default *if* all its notes and demand deposits were presented for redemption simultaneously. (Selgin and White, 1996, p.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 . . .’. But the fundamental objection by the opponents is not that this might happen as a kind of remote possibility somewhere, but that what they see as the fraud has always already been committed and would only be exposed by or become manifest upon a bank run.

Another author, 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, p.138)

This is the ontology of ‘availability’ of realists. 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 an impossible kind of bilocation, a permanent miracle opponents of FRB cannot believe in. But then Huerta de Soto quotes Garrigues when he is using the alternative ontology:

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, p.148)

Hence, the custody of the ‘real availability’ of the dispositional realist 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 a sceptical metaphysics of powers. Whether or not these certificates are considered to be ‘redeemable’ and the deposited funds ‘available’ therefore heavily depends on the underlying ontology of powers and dispositions used by both parties.

7. Option clauses and insurance companies

Moreover, two other key arguments in the debate further illustrate this underlying ontological difference, namely the arguments on option clauses and insurance companies. One way opponents try 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 redemption requests, 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 proponents. For them, 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 2-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 sceptical position about powers, we have to make the disposition of the certificate a negative one – *irredeemable*, *unavailable*.

The debate is whether these disposition–ascriptions necessarily apply to FRB certificates (as the opponents claim), or not (as the proponents claim). The option clause is then parallel to the masking or finking 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 realists, this merely masks the disposition, i.e. prevents it from manifesting, although it really is there and is quite problematic for other reasons, namely the general instability of the entire economic sphere.¹² 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 sceptics 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 argument by proponents to counter the 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 opponents 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. For proponents, it is just a matter of what happens when the trigger conditions or stimulus conditions for the manifestation of dispositions occur. If, so they argue, opponents of FRB apparently have very high requirements about the ‘strength’ of a disposition even in very extreme and unlikely events – like people only willing to walk over concrete or steel bridges, not wooden ones or rope bridges – then they should also apply these highly unlikely test cases to other institutions, like insurance companies, who would face similar risks.

However, for realists, 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. For them, FRB banks are *always already* bankrupt, even though their bankruptcy only *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 *before* the chance event. Although in both cases, the bankruptcy would *become* manifest upon a very unlikely event occurring, the bankruptcy of the FRB bank – with bankruptcy as a dispositional

12 Huerta de Soto, for one, devotes a large part of his (2009) work to the argument that FRB, in connection with the Austrian Business Cycle Theory, 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.

property – was always already the case, fully real, before it became manifest and will even be the case if it never will become manifest.

8. Conclusion

The goal of this paper was to demonstrate the usefulness and importance of social ontology for the specific topic of FRB. 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.

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