

## The Social Structures of Money\*

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Draft V4, August 2013

This is an unpublished paper. Please cite as:

Elder-Vass, D. (2013). The social structures of money. Unpublished paper available from <https://eldervass.com>

\* This paper has benefited from discussions at the Cambridge Social Ontology Group and the British Sociological Association's annual conference, and the comments of Dean Curran, Alistair Milne and anonymous reviewers on an earlier version. I thank everyone who has raised questions and made comments.

# The Social Structures of Money

## Abstract

This paper develops a sociological account of the nature of money. It argues that the central functions traditionally attributed to money are not all functions of the same thing, but rather features of two fundamentally distinct social phenomena. The *unit of account* is a normative phenomenon, which the paper explains as a product of a complex of *norm circles*. The function of *means of payment* is performed by a range of monetary instruments whose capacity to be used in payment depends on a different kind of social structure: *monetary circles*. Money is essentially a causal power of social structures – the power to be used in payment – that is delegated to the holders of monetary instruments.

Keywords: money, economic sociology, critical realism, norm circles, social ontology, social structure.

## Introduction

Twenty years ago, it was possible to suggest that money had been seriously neglected by sociologists (Deutschmann 1996: 1; Dodd 1994: vi). Although money has remained far from the centre of sociology and even of economic sociology, a number of major sociological works have begun to reverse this neglect (notably Dodd 1994; Ingham 2004; Zelizer 1994) and the debate has also been informed by important new histories of money (Davies 1994; Graeber 2011). Inevitably, perhaps, greater attention has brought as much disagreement as progress, with the result that further work is as urgent as it was before.

One reason for sociology's relative neglect of money has been what Zelizer calls the 'separate spheres' argument: the idea that the economic and the social are essentially distinct and operate more or less autonomously of each other (Zelizer 2011: 5). Given this assumption, money has traditionally seemed to both economists and sociologists to belong in the economic rather than the social domain and thus to be the preserve of economists.<sup>1</sup> And, although there are important alternative traditions within economics, economists on the whole have sought to analyse money using rather abstract models that pay little attention to any possible sociological account of the nature of money (for a recent survey of the field, see Arestis and Mikhailov 2011).<sup>2</sup> From the other side,

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<sup>1</sup> A division of labour that has been blamed on Parsons (Deutschmann 1996: 2; Dodd 1994: 60), although he himself saw his work as seeking to bridge the gap between these disciplines (Parsons and Smelser 1956: xvii).

<sup>2</sup> There is a significant range of heterodox approaches to economics (see, for example Hodgson 2006; Keen 2011; Lawson 2003). For an overview of alternative approaches to *monetary* economics see (Arestis and Sawyer 2006).

however, the separate spheres argument has become the focus of a variety of sociological critiques. Economic processes, according to Granovetter, are deeply embedded within social processes, and in particular social networks (Beckert 2007; Granovetter 1985; Krippner and Alvarez 2007). As Deutschmann points out, “economic action is always social action” (1996: 3). For Dodd, if the economy is taken to be a “domain of rational action separated off from the rest of society”, as mainstream economics assumes, then “there is no such thing as the economy” (1994: 104). And for Zelizer, sociologists should not be “expanding the economic approach or complementing it”, but rather developing “competing accounts of economic transactions” which recognise that “in all areas of economic life, people are creating, maintaining, symbolizing and transforming meaningful social relations” (2011: 132-3). As far as the sociology of money is concerned, the ambition that follows from such arguments is to develop a sociological account of money that is not merely peripheral to economic monetary theory but rather offers a replacement of its very core (Dodd 1994: vii-viii).

This paper contributes to such an account, both building upon and moving beyond the existing sociology of money. The context is established by examining one central controversy from the literature: the question of the functions of money and in particular which of these is most fundamental to its nature. This long-running controversy is misconceived, I argue, because the two central functions that it counterposes are not two functions of the same thing, but rather features of two fundamentally distinct social phenomena. On the one hand, the adoption of a unit of account is a normative phenomenon, which the paper explains as a product of a complex of *norm circles*. On the other, the function of means of payment or medium of exchange is performed by a range of monetary instruments whose capacity to be used in payment depends on a different kind of social structure, which I call *monetary circles*.

Money, the paper will argue, is essentially a socially constructed causal power of social structures – the power to be used in payment – that is delegated to the holders of monetary instruments. The salience of this power in contemporary society leads to substantial deployments of other powers that both influence and to an extent constitute these social structures. Among other benefits, this approach offers a sociologically grounded understanding of the nature of money, as opposed, for example, to the thoroughly empiricist tendency of central banks and monetary economists to define money as whatever set of financial instruments currently gives the best fit as an explanatory variable in econometric models designed to predict inflation and other macroeconomic variables.

### **The functions of money**

Although there are several important debates in the recent literature, the context for this paper can be established most clearly by focusing on just one: Which is the most important, or primary, function of money? Many analysts of money have offered lists of its functions, and although these vary, there is a more or less common core: “It is a

*medium of exchange, store of value, means of unilateral payment (settlement), and measure of value (unit of account)*" (Ingham 2004: 3).<sup>3</sup>

From the neoclassical point of view, money is primarily a convenient medium of exchange which increases the efficiency of the market process, and its other functions are essentially a by-product. This perspective is reflected in an origins-of-money story told most influentially by Carl Menger (Menger 1892). According to Menger, pre-monetary economies were barter economies but trade was severely hampered by the inherent restrictions of barter. First, it was prohibitively difficult to maintain a consistent system of pricing, since every commodity had a different 'price' in terms of every other commodity. Agreeing a price for an exchange was therefore problematic, but even more problematic was the problem known as the 'double coincidence of wants' (Klein and Selgin 2000: 217). Say, for example, I have a pair of shoes, I want a dozen chickens in exchange, and these have equivalent exchange value. Under a barter system I can only trade if I can find someone else with a dozen chickens who wants a pair of shoes. If, on the other hand, we have a monetary economy, I can trade the shoes for money and I should then be able to buy my chickens from anyone with some to sell, irrespective of what commodity they wish to acquire. Money thus appears when one particular commodity that is particularly suited to the purpose starts to be adopted as a medium of exchange (Klein and Selgin 2000: 218). Money, then, for Menger, arises more or less spontaneously from the optimising behaviour of individuals in the process of economic exchange, because it increases the efficiency of exchange and reduces its costs (Bain and Howells 2009: 5).

Money, in such cases, is a medium that intervenes between the possession of two commodities to smooth the process of exchanging one for the other, hence a *medium of exchange*. Given, however, that the second stage of this process may be deferred indefinitely, money may also function as a *store of value*, as it is possible to save or hoard it for future use. Money also operates as a *means of payment* within the process of exchange, but it may be used to make other kinds of payment too, such as taxes, gifts, and fines.

Finally, money acts as a *measure of value* or *unit of account* in the sense that it provides a standard scale against which the price of a commodity can be assessed and which may also be used as a measure of debts and credits. It allows the expression of values "as magnitudes of the same denomination, qualitatively equal, and quantitatively comparable" (Marx 1954 [1867]: 97).

Menger's origins story is widely disputed by opponents of the neoclassical tradition. The significance of barter in pre-monetary communities has been challenged (e.g.

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<sup>3</sup> Davies identifies several other functions, including several macro-economic ones (1994: 27), Hart argues that "money's chief function is *remembering*" in the sense of marking our position in a community (2011: 5), and Parsons sees money's primary functions in terms of its role in integrating the economic system, both internally and with the rest of the social system (Chernilo 2002: 431-3).

Davies 1994: Chapter 1; Humphrey 1985: 48), and alternative origins stories have been told, most significantly those that see the state as the primary originator of money (e.g. Wray 2000) – a theory known as *chartalism*, first advocated by G. F. Knapp a century ago and subsequently endorsed by thinkers as prominent as Max Weber and John Maynard Keynes.<sup>4,5</sup> One consequence of disputing this origins story is to decentre the medium of exchange function from money's history, and the recent debates over which of these functions is most important largely derive from Keynes' assertion that "Money of account, namely that in which debts and prices and general purchasing power are expressed, is the primary concept of a theory of money" (1930: 3). Keynes's view has been advocated and elaborated more recently by Geoff Ingham, who argues that neoclassical economics "is concerned exclusively with money as a *medium of exchange*. The other functions (unit of account, means of payment, and store of value) are taken for granted or assumed to follow from the medium of exchange function" (Ingham 2000: 17). But for Ingham this is an error because "money of account is the pivotal element of monetary practice" (2000: 18) and "[m]oney of account is logically anterior to the market" (2004: 34). For Ingham, there can be money of account without a circulating medium of exchange, but no circulating medium of exchange without a money of account.<sup>6</sup> Ingham is motivated by a thoroughly sociological interest in the ways in which the economy depends on factors outside markets. Money, from this perspective, is not merely a by-product of optimising behaviour in the market but depends upon other social forces such as normative institutions and the state.<sup>7</sup>

It seems plausible to argue that money of account is logically anterior to the conception of a market as it is understood in neoclassical economics, since price equilibration depends upon there being a common unit in which prices can be expressed. But this does not entail that a money of account is logically anterior to the use of a commodity as a medium of exchange. Imagine, for example, that clay pots served as a medium of exchange, but that these pots were not all alike: some were large, some small, some beautifully decorated, some plain, some fragile, some durable, and so on. Such pots could function as a medium of exchange even though different pots had different exchange values in terms of say, barley, shoes, or chickens. This would be a step away from barter that solved the problem of the double coincidence of wants without solving the problem of commensurability (or proliferation) of prices. No doubt this is less efficient than a monetary system that also provides a unit of account, but there is no *necessary* reason why this sort of system should not occur. Such thought experiments, of

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<sup>4</sup> Note that Keynes' views on this date from his *Treatise on Money* (1930), and in later work he appears to have abandoned some of them (Ingham 2004: 50-52).

<sup>5</sup> Another theory has it that money originated in traditional compensation payments including blood-money and bride-money (Davies 1994: 23-5; Ingham 2004: 90-93). This theory is comprehensively dismissed by Graeber (2011: 62-71). Parsons and Smelser offer a third, based on the emergence of the division of labour and the differentiation of society, though like Menger they see the development of money as rooted in exchange (Parsons and Smelser 1956: 140-1).

<sup>6</sup> Ingham made this point in a talk at the Cambridge Realist Workshop in October 2007.

<sup>7</sup> Ironically, the most robust sociological defences of the primacy of the medium of exchange come from the Marxist left (Lapavistas 2005: 396).

course, prove nothing about actual monetary systems, but they can *disprove* claims about logical necessity.

One might conclude that there is little value in disputing which functions are primary, particularly when these functions seem to be interdependent in practice. This paper, however, develops a different argument: it claims that confusion over the relative significance of the different functions of money arises in part because of an ontological error, an error that continues to be made not just by the active participants in this particular debate but by all contemporary writers about money of which I am aware. The error is this: to believe that the unit of account and means of payment<sup>8</sup> functions are different functions *of the same thing*. Arguments about which is the primary function of that one thing are pointless because each is a function of a different kind of social structure.

### Two distinct social structures

The belief that both these functions are performed by the same thing is a fundamental and widespread error. Nevertheless, there are partial recognitions of the underlying separation in the literature. There is a hint of this argument in Marx, who writes that while the function of a unit of account can be performed by imaginary money, the actual realisation of price – the function of medium of exchange, as I read him – can only be performed by real money (1954 [1867]: 99). We find something similar in Davies' list of the functions of money, in which he labels the unit of account and closely related functions as “abstract” and the means of payment and related functions as “concrete” (1994: 27). Yet these writers quickly step back into discussing money as if it were just one thing that performs both functions. Davies, for example, goes on to define money as “anything that is widely used for making payments and accounting for debts and credits” (1994: 29).<sup>9</sup>

Keynes carefully separates his initial discussion of “money of account” from “money itself, namely that by delivery of which debt contracts and price contracts are *discharged*, and in the shape of which a store of general purchasing power is *held*” as if the two referred to different things (1930: 3). He goes on to argue that this distinction is important because it is possible for one to change (e.g. the form of ‘money itself’) while the other remains the same (1930: 3). But his approach is to treat money of account as a “description or title” and money as “the thing which answers to the description” (1930: 3), rather than two independent structures.

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<sup>8</sup> For simplicity, the remainder of the paper focuses on only two of the functions of money: unit of account and means of payment. I assume that anything that can function as a means of payment can also act as a medium of exchange and store of value, hence these functions do not imply any further ontological differentiation (cf Ingham 2004: 70).

<sup>9</sup> This specification of money as one kind of thing that performs *both* groups of functions is entirely typical of the literature. See, for example, Ingham (2004: 70).

A stronger precedent is provided by the eighteenth century political economist James Steuart:

The first thing therefore to be done in treating of money, is, to separate two ideas, which, by being blended together, have very greatly contributed to throw a cloud upon the whole subject. Money, which I call of account, is no more than an arbitrary scale of equal parts, invented for measuring the respective value of things vendible. Money of account therefore, is quite a different thing from money-coin, and might exist, although there was no such thing in the world as any substance, which could become an adequate and proportional equivalent for every commodity (Steuart 1767: Book 3, chapter 1).

Like Steuart, this paper argues that confusing these two is a fundamental error that has stood in the way of a coherent understanding of money. There is not one thing, money, which performs these two groups of functions. On the contrary, there are two distinct types of social structure that perform these two groups of functions.

On the one hand, this paper will argue, the function of unit of account is performed by a complex of normative institutions. Most significantly, for each unit of account, there is a norm that this unit may be used (and in certain circumstances *should* be used) for the measurement of monetary value. This norm (like any other) is produced causally by a *norm circle*, a kind of social structure that is examined in some detail in my earlier work (Elder-Vass 2010: chapter 6; Elder-Vass 2012: chapter 2). On the other hand, the function of means of payment is performed by specific *monetary instruments*, such as notes, coins, and credit cards. These indicate that their carriers are the delegated bearers of a socially authorised quantified power to pay, a causal power of a distinct type of social structures that I propose to call *monetary circles* (see below).

One empirical phenomenon that lends support to this division is the many cases in which these two functions have been dissociated from each other. Davies tells us, for example, that “for around half the long monetary history of the £ sterling in Britain... there was no such *thing* as a pound; it existed only as a unit of account. There are numerous similar examples” (1994: 29). In another example (of many in the literature): in some of the many societies in which cows have been the unit of account it was common to use less valuable items such as sheep, goats and hides as the corresponding means of payment (Davies 1994: 41). For a more contemporary case, consider that the Euro existed as a unit of account for two years before corresponding notes and coins were introduced (Ingham 2004: 227 n9). It is hard to justify the belief that the unit of account and means of payment functions are both functions of the same thing when they are patently not performed by the same thing. This distinction is less obvious when the means of payment is an actual quantity of the same commodity, denominated in the same units, as the unit of account, or when the means of payment is a form of claim (such as modern paper currencies) that has no value independent of its status as an instantiation of the unit of account. Yet, as the following sections will argue, even in

these cases these two functions are the product of two distinct types of social structure requiring two distinct ontological analyses.

### **The normative basis of units of account**

The function of unit of account, it was argued above, is performed by a complex of normative institutions. This section will consider the range of norms required, and the next the nature of these normative institutions.

Units of account provide us with monetary quantifiability and commensurability. Actual monetary instruments do not have *unlimited* power to be used in payment, but some specifically *quantified* power, and this depends on them being indexed against some idea of numerical scale. This in turn depends upon a complex of related social agreements and practices.

First, we must have the idea of number, and counting. Although the idea of number seems to depend on our perception of real features of the world that exist independently of us, and on our biologically evolved mathematical capacities, it becomes socially salient only within practices of counting. It depends, for example, on the development of a linguistic vocabulary for numbers, on the teaching of counting and arithmetic, and on a discursive environment in which quantity is treated as significant. Whatever biological capabilities we may have, the *practice* of counting is normatively shaped and thus socially constructed.

Secondly, quantification must be *applied* to things that could potentially be given, exchanged, or used in settlement of some obligation. In some cases, this may simply be a matter of counting the things concerned. Cowrie shells and cows, for example, are things that have been widely used as money (Davies 1994: 35-6, 41-3) simply on the basis of counting them. This superficially straightforward application of number, however, already depends on practices of qualification and abstraction that handle the question of what *counts* as a countable item. How much of a cowrie, for example, must be present for it to count as a cowrie? Does a new born calf count as a cow? Does a pregnant cow count as one cow or two? Does a seriously ill cow count as a cow? Here there is an element of abstraction from the specific qualities of a particular cowrie or a particular cow in order to establish equivalence for the purpose of quantification. Davies cites a story told by Farson about a member of the Wakamba in Kenya, who told him "Listen, here are two pound notes. One is old and wrinkled and ready to tear; this one is new. But they are both worth a pound. Well, it's the same with cows" (Davies 1994: 42).

But there may also be socially agreed limits on such abstraction. Farson's story is nicely balanced by one from Keynes, who reports: "A district commissioner in Uganda today, where goats are the customary native standard, tells me that it is a part of his official duties to decide, in cases of dispute, whether a given goat is not too old or too scraggy to constitute a standard goat for the purposes of discharging a debt" (1930: 11). In other



cases, simply counting instances of a thing may be impractical as a method of quantification, or abstraction from differences in quality may be considered unacceptable. Thus, for example, counting grains of barley would be prohibitively time consuming, and would count small grains as being equivalent to large grains, and instead barley and other grains are typically measured by volume – by the *gur*, for example, in Babylon (Ingham 2004: 94). Similarly, precious metals have typically been quantified by weight. In addition, then to numbering practices, specific norms of quantification for different types of item that might be used in payment are a prerequisite to the establishment of commodity-based units of account.

Thirdly, units of account depend upon norms and practices relating to equivalence or commensuration (see Espeland and Stevens 2008). This is most easily seen when we consider the case of exchange, which depends on the practice of treating a certain quantity of a commodity A as equivalent in exchange value to some other quantity of commodity B. But it is also implicit in the other kinds of practices that have been suggested as possible historical origins of money. The practice of paying blood money, for example, depends on the practice of judging a certain injury to be equivalent to a certain quantity of a certain product to be paid in compensation (Davies 1994: 25).

It seems, then, that only a society that has already established practices of counting, quantification, qualification, abstraction and commensuration can move on to the decisive step: the practice of treating one particular reference commodity as a ‘general equivalent’ for the purpose of exchange, and a certain unit of the reference commodity as the unit of measurement of exchange value or price. When this is a unit of a previously existing commodity, this will also tend to establish the exchange value equivalence of the unit of account at the exchange value of the corresponding quantity of the reference commodity.

At this point, we have a unit of account – but not necessarily a monetised means of payment. Just as a means of payment without a unit of account is a logical possibility that solves one of the two major problems of barter (the double coincidence of wants), a unit of account without a monetised means of payment is a logical possibility that solves the other major problem: the issue of price proliferation. Imagine, once again, that I wish to exchange a pair of shoes for chickens. With an agreed unit of account, there need not be a price for a pair of shoes expressed in terms of every other commodity that it would be possible to exchange them for, nor a price for a chicken in each of those terms. All that would be necessary is that there was a single price for a pair of shoes in terms of the unit of account – let us say silver shekels – and a single price for a chicken in terms of the unit of account. It would then be straightforward to establish the rate at which shoes should exchange for chickens, and we could proceed to exchange them without any need for a monetised means of payment. Again, this is offered as only a hypothetical case, but it does help to make the point that these two social institutions – units of account and means of payment – are distinct from each other.

Things are complicated further when commodity money is replaced by paper money and then by inconvertible paper money. Once paper money becomes inconvertible the unit of account can float free of any physical measure and becomes doubly a matter of convention. First, in the sense that was already true of commodity units of account: that it is only by agreement that this unit rather than some other is used as the unit of account. But also, second, in the sense that the value-equivalence of a unit of account is no longer rooted in the exchange value of the corresponding physical quantity of the reference commodity. Instead, that value itself is entirely socially constructed, implicit in our monetary practices, but influenced by a range of factors such as confidence in the authorities who back its use, the range of payment takers who are prepared to accept it at face value, and questions of demand and supply.

These other factors remind us that units of account are not entirely a product of conventional normativity; but normative institutions play the central role in the establishment and maintenance of a unit of account. The central normative structure is one that supports the use of a specific standard as the unit of account, but this is implicated in a web of others that support, for example, our practices of quantification, commensuration and payment.

### **The social structure of normativity**

If normative institutions play such a central role in units of account, then an adequate ontology of money depends on an adequate account of the structural basis of normativity in general. I have developed such an account elsewhere (Elder-Vass 2010; Elder-Vass 2012). This section summarises the key points and explores the application of the argument to the case of units of account.

From this perspective, social structures are entities composed of groups of people (and sometimes other sorts of parts too), which have causal powers as a consequence of the way that their parts interact with each other. This way of thinking is rooted in a critical realist approach to ontology in general, drawing in particular on the early work of Roy Bhaskar (Bhaskar 1975; Bhaskar 1998 [1979]).<sup>10</sup> It may be illustrated most accessibly by considering the case of a simple organisation. For example, a football (soccer) team is a social entity composed of the group of people who are members of the team. Being a member of the team commits one to interacting with the other members in specific ways, such as turning up for matches, passing the ball to each other, cooperating to prevent members of the other team from scoring goals, and helping members of one's own team to score them. These ways of interacting are part of the role of a member of the team, a role being a bundle of norms about how an occupant of a position should behave. As a result of the members of the team interacting in the ways specified in these role norms, the team collectively has causal capacities that the members of the team would not have if they were not organised into such a team, such as the capacity to win

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<sup>10</sup> The relation of social structures to a critical realist approach to ontology is examined in considerable detail in Elder-Vass (2010).

or lose a football match. A football team is thus a simple social structure – a social entity with causal powers arising from the ways in which its parts are organised.

This notion of causal powers is easily misunderstood as a result of the positivist conception of causality that is widespread (even amongst its critics) in the social sciences. Under the positivist account of cause, exemplified by the work of David Hume, cause is fundamentally a relation of exceptionless empirical regularity: A is said to cause B if A is always followed by B (Elder-Vass 2010: 40-43; Hume 1977 [1748]: 50). With this conception of cause, it would be incoherent to say that a football team has the causal power to win *or* lose a football match. But within the critical realist tradition, causality is understood in a different way. Events are taken to be caused by a variety of interacting causal powers, with the result that any single causal power need not always produce the same outcome, since the actual outcome will always be contingent upon which other causal powers it is interacting with and how strong each of those powers is in the case concerned. Thus, in the case of a football match, the outcome will depend (in a rather complex way) on the *balance* of the powers of the two teams and also on other factors such as the causal influence of the referee, the weather, the pitch, and so on.

Given this framework, an explanation of normativity should identify its causal basis in the powers of social entities and the basis of those powers in the ways in which the entities concerned are organised (Elder-Vass 2007a; Elder-Vass 2010: chapter 4). I have argued that normativity is produced by the causal power of entities called *norm circles* (Elder-Vass 2010: chapter 6; Elder-Vass 2012: chapter 2). A norm circle is that group of social actors (primarily people, but potentially also other entities such as organisations) that endorses and enforces a given norm, typically by praising or rewarding those who conform to it, and criticising or punishing those who breach it. The consequence of such actions is to create a normative environment in which those exposed to the influence of the norm circle feel that they ought to conform with the norm, whether for purely instrumental reasons – they wish to avoid criticism or punishment – or because they come to internalise the norm and attach a moral sense to it. They therefore develop a disposition to conform to the norm (Elder-Vass 2007b) The norm circle thus influences the behaviour of individuals exposed to it, a causal influence that is mediated through the effects that the actions of members of the norm circle have on the beliefs and dispositions of the affected individuals.

Although the norm circles for different norms may sometimes consist of the same set of actors, or of very similar sets of actors, in principle each norm has its own norm circle and there is no necessity that the norm circles for any two norms will coincide. Indeed, in contemporary societies, norm circles typically diverge in membership and intersect profusely with each other. Norms for certain everyday social practices, such as how we should greet each other and how far apart we should stand from each other when in conversation, may be supported by norm circles composed largely of private individuals. Those for other practices, however, may also include organisations. Consider, for example, the norm ‘in this country you should drive on the right hand side

of the road'. Within certain countries, there is a norm circle for this norm, consisting at least of the state, the police, and driving instructors, as well as individual drivers.

This is not a consensus theory: those who observe norms because of the pressure exerted by norm circles may not agree with those norms. Nor is it a theory that is blind to the effects of power: ordinary individuals may have only the most marginal of influence over some normative standards, even collectively, when more powerful actors such as states and large corporations stand behind (or against) some particular norm. States, for example, may bring the power of the law and its enforcement agencies to bear to enforce a norm, strongly limiting the possibilities of supporting alternative standards.

Nevertheless, normative change is possible. Norms may be challenged, notably by competing norm circles advocating some alternative standard. This may come about due to some process of ethical discourse, as for example when feminists challenge sexist gender norms, or simply as a result of different cultures coming into contact with each other, for example as a result of migration. In cases like this, norm circles may act as forces for change, and not just as forces that stabilise some existing state of affairs.

### **The social structure of monetary commensuration**

Units of account, then, depend upon a set of interlinked or *articulated* norm circles, supporting social practices such as quantification, calculation of value equivalence, and in particular, the use of a specific unit of a specific type as the standard for calculating and recording transaction values. If we may take these more basic norms as given, any given unit of account depends upon the existence of a set of norms that we may call *unit of account norms*. In countries in Europe's Eurozone, for example, there is a norm circle for the norm 'retail prices in this country should be expressed in Euros'. The members of this norm circle, I suggest, include the state, most or all retail organisations operating in the country, various institutions of the European Community, and most members of the population. Similarly, in these countries, there is a norm circle for 'banking balances in this country should be expressed in Euros' whose members include the state, banks, the European Central Bank, and most of the population. As a result of the causal influence of these norm circles, people and organizations in these countries do typically express prices and banking balances in Euros.

Unit of account norms, like many others, are contextually specific. Most individuals who are likely to travel between different countries, for example, are aware that different units of account may operate in different countries, and so the norm that they endorse is not simply 'retail prices should be expressed in Euros' but shows some recognition of contextual specificity. Although we are accustomed to this specificity being framed in terms of national territories, it need not be, and even when it is it may also have other dimensions. There may be certain classes of transaction within some countries, for example, that are often conducted using some other unit of account than the local currency (e.g. US dollars in tourist shops in some countries, or in certain kinds of

financial markets). We may conveniently follow Ingham in calling the context in which a certain unit of account is normatively endorsed a “monetary space”: the “field of *potential* transactions that may be conducted” using a given “money of account”, as long as we bear in mind that this is a metaphorical and not a literal usage of the word *space* (2004: 71). As Mellor puts it, “money can only exist within a ‘monetary space’, that is, one where whatever is used as the ‘money of account’ in Ingham’s terms, is backed by an authority or a code of honour of some form” (2010: 16).

In some cases, units of account are sustained by a norm circle composed of private individuals and organisations; the local currencies and electronic monies that are currently proliferating are good examples (Dodd 2005: 398-9). But for the dominant currencies of modern times, governmental authorities and their central banks consistently play a major role in establishing and maintaining the unit of account norms (and thus are typically the most significant individual member of the corresponding unit of account norm circle). In the case of early Babylon, regarded by the chartalists as the first monetary economy, it has been argued that the state established the *shekel* of silver as the unit of account by defining tax obligations in its terms (Ingham 2004: 94-5). As, usually, the largest or one of the largest operators in the monetary economy of its territory, the state can exercise substantial influence on the prevailing unit of account simply by adopting it itself and requiring its transaction partners to do so (Dodd 1994: 28). States, however, may also legislate and use enforcement agencies to control the use of units of account by others, for example requiring retail transactions to be conducted using the national currency as unit of account (and indeed means of payment).

States may also play a leading role in innovating in this area. For example, in the mid twentieth century many newly independent states established their own currencies and thus their own units of account (and means of payment) as one element of asserting their freedom from the former colonial powers.

This is not to say, however, that states have unlimited power in this respect. The clearest evidence of this is that when states attempt to impose a unit of account that is perceived as being unstable in value, such as in cases of hyperinflation, other currencies and commodities may come to be adopted as standards of value. Ingham, for example, reports that in Argentina from 2002 “two moneys of account – a devalued peso and the US dollar – competed for the denomination of *domestic* credit-debit relations” (2004: 166). In such cases norm circles for other unit of account norms develop in competition with that for the national currency, and these other units of account may even become more widely used.<sup>11</sup> Thus, the state’s influence is conditional on the unit of account norm that it supports continuing to perform the corresponding function effectively. When it does, economic actors are unlikely to have much interest in disrupting the normative environment. When it does not, other actors have an incentive to back

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<sup>11</sup> Where other currencies or commodities are also used as means of payment, competing monetary circles are also involved – see below.

alternative units of account for their transactions in an attempt to defend themselves from instability, generating a disruptive normative environment that undermines support for the official unit.

Such cases, however, do not only demonstrate the causal significance of non-state actors, but also the causal significance of macroeconomic factors: in this case inflation rates. It may be, for example, that monetary systems or market systems form higher level social entities with emergent properties of their own, contributing to phenomena like inflation and varying rates of exchange. This is an area where further work is required to assess how the account of money given here might be linked to macroeconomic forces. A particularly significant question is whether this would lead to explanations that converge with, or diverge from, the various explanations of these phenomena that have been advanced by economists.

This paper proposes, then, that units of account are the product of unit of account norm circles, which establish normative agreement on the units to be used to measure value. This tells us nothing, however, about the actual instruments used in monetary transactions: the means of payment. The unit of account we call the Euro, for example, is not the same thing as a one Euro coin, and the social structure that secures our acceptance of the Euro as a unit of account is distinct from (though articulated with) the social structure that secures the acceptability of one Euro coins as a means of payment. This latter social structure is the subject of the next section.

### **Monetary instruments**

The second set of standard functions of money – means of payment, medium of exchange, and store of value – is performed at first sight by what I will call *monetary instruments*. These are what Keynes called “money itself” or “money proper”, as opposed to “money of account” (1930: 3). Keynes’ terminology reflects the fact that it is usually monetary instruments that we have in mind when we use the term *money*, and I will also use the everyday term with this sense, except when this might invite confusion with the unit of account. The most obvious examples of monetary instruments are notes and coins, and the actual stuff of commodity monies such as cowrie shells. Beyond these standard examples, though, there is significant scope for ambiguity and disagreement over what counts as a monetary instrument. Zelizer, for example, includes “credits in baby-sitting pools, casino chips, or investment diamonds” (2000: 385), and “frequent-flier credits, telephone cards, transit cards, food stamps, and the new digital monies privately issued by credit card companies and banks” (2000: 386), while economists measuring the money supply may include “exotic financial assets that are more or less substitutable for cash” (Baker and Jimerson 1992: 678-9).

Whether or not we consider these various alternatives to be monetary instruments depends on our definition of money. Zelizer suggests that “to the extent that interactions transfer rights to goods and services by means of tokens that could also serve transfers of other such rights, we can call those tokens money” (2000: 384). This

focus on the transfer of rights to goods and services seems to me correct: monetary instruments are of interest because they are means of payment, and Zelizer phrases her definition sufficiently openly that it applies to payments of all kinds, and not just exchange. But there is perhaps a sense in which Zelizer's definition is *too* open: it could also be applied to the goods exchanged in barter. There is some quality of money that differentiates it from bartered commodities, and Zelizer makes a gesture towards this with the phrase "tokens that could also serve transfers of other such rights", but because a non-money commodity could also be bartered for a variety of other goods this phrase doesn't yet capture the quality that differentiates money. Under barter, goods are accepted in payment because of use values that they possess independently of the process of exchange. What is distinctive about money is that it is accepted *because* it can be used in further payments, and not because of its other use values.

We may therefore define a monetary instrument as *a token that is accepted in payment because it is known to be usable for further payments*. On this definition, credits in baby-sitting circles would indeed count as money, as would casino chips when they have come to circulate in casino towns for other purposes in addition to gambling in the casino that issued them (Graeber 2011: 74), but investment diamonds and financial futures would not. Investment diamonds and financial futures are certainly forms of wealth, but as a general rule they cannot be used in payment and must be sold (at a variable price) on the market to convert them into something that can.

Dodd suggests that "there is no feasible definition of money which can embrace the diversity of monetary forms in circulation" (2005: 387). My definition would seem to exclude, for example, some of the forms that are often included by economists in definitions of the money supply. We may need to define money differently depending on our cognitive interests; or perhaps the "money supply" has become detached from a coherent definition of money as a result of the empiricist concern with predicting financial variables that has driven its continual redefinition.

Payment cards such as credit and debit cards are another complex case. When these are used, the money that changes hands is an electronic balance transfer and this electronic balance is the token of a power to pay that is then usable in further payments. By convention, we may call the cards monetary instruments, but it would be more accurate to think of the card, along with the authorisation machines, communication networks, and humans who provide PIN numbers, as part of a technology for transferring money than as monetary instruments themselves.

The value of monetary instruments is not simply a product of their physical form: the way that paper and ink are combined to produce, say, a twenty dollar bill does not in itself generate the payment value of the note. In some other culture, or in some other historical period, the same note would be a worthless curiosity. The value of a monetary instrument thus depends on some relation that is external to it: it depends in some way on the social relations in which it is embedded and on the symbolic meaning attached to

the monetary instrument within those social relations. As Dodd puts it: “to understand what is distinctive about money requires reference to the network of social relationships which makes its transaction possible, not to the object exchanged or the exchange relationship itself” (1994: xxiii).

### Monetary circles

The sociological literature on money provides two concepts that may help to explain these relationships and meanings: *trust* or *confidence*, and *community*. In the debates on money that followed the US Civil War, for example, “Greenbackers saw exchangeability as the basis for confidence. Anyone would accept a paper dollar in payment if she knew it could be used later to buy whatever the person wanted” (Carruthers and Babb 1996: 1571). Much more recently, Dodd has made trust a central element of his theory of money, but like the Greenbackers, he sees this trust as directed beyond the immediate transaction: “Monetary transaction relies on trust not between individuals but between transactors and the transacting network” (1994: 136). Kaelberer connects up trust and community, arguing that “market participants accept money in exchange based on the trust that others will do exactly the same. Money represents an implicit guarantee given by the respective community that a particular item is acceptable as a means to settle accounts” (2007: 623). Graeber argues that in the medieval period, “Within a community – a town, a city, a guild or religious society – pretty much anything could function as money, provided everyone knew there was someone willing to accept it to cancel out a debt” (2011: 74). This link between trust and community can be traced back at least as far as Simmel, who tells us that

When barter is replaced by money transactions a third factor is introduced between the two parties: the community as a whole, which provides a real value corresponding to money. The pivotal point in the interaction ... moves to the relationship which each of them, through his interest in money, has with the economic community that accepts the money (Simmel 2011 [1907]: 189-190).

This paper develops these arguments by arguing that money is a causal power of a group, a group that corresponds to some extent to these usages of *community*, but which we may specify more precisely as a *monetary circle*.<sup>12</sup> Although this concept bears a certain similarity to the concept of a norm circle, it also differs in important ways. Norm circles operate through actions in which their members express approval or disapproval of other actions. Monetary circles operate through actions in which their members accept, or indicate that they are willing to accept, specific monetary instruments in payment. And although it also bears some similarity to the concept of a *community*, it also differs from this in important ways: the concept of community implies a group of people who are linked by multiple types of interaction, whereas I

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<sup>12</sup> In places Simmel uses the terms *economic circle* or simply *circle* to refer to something similar, although he also uses the term *economic community* and tends towards a territorial definition of economic circles (2011 [1907]: 189-96).



adopt the concept of a circle (originally from the work of Simmel, e.g. 1955) precisely because it does *not* assume this. The members of a monetary circle need not form a community in any other sense than that they are willing to accept the corresponding monetary instrument in payment. Of course, other links between them may help to sustain this willingness, but this is a contingent empirical question and by no means a necessary feature of a monetary circle.

By hypothesis, there is one monetary circle for each type of monetary instrument. Thus, for example, there will be a monetary circle for British sterling notes and coins. Technically, there could be different circles for different types of notes and coins of the same national currency: for example, at certain times some retailers in the UK have been unwilling to accept £50 notes because there was a high reported rate of forgery and the high value of the note made the risk of taking a forged one unacceptable to many small businesses. For another example, from time to time particular designs of note are withdrawn from circulation in the UK, and there is usually a period during which such notes are no longer accepted by retailers but continue to be accepted by banks. More commonly, the monetary circles for a closely related set of instruments such as different value notes and coins of the same currency are likely to coincide.

At least part of the significance of monetary circles arises from the fact that they are *not* universal; each type of monetary instrument in circulation is accepted only by a limited subset of possible payment partners. British notes and coins will typically be refused, for example, by retailers in France or India: the retailers' staff may be perfectly willing to acknowledge that they are money, but they are not the kind of money that is acceptable in payment to these partners. We may adapt Ingham's conception of a "monetary space" (2004: 71): although he formulates the concept for a particular *money of account*, specific *monetary instruments* also have a corresponding monetary space, a range of transactions in which they may be used, determined by which potential transaction partners are members of the monetary circle for the instrument concerned and by the *types* of transaction in which the members of the monetary circle will accept them.

There are also parallels between the concept of a monetary circle and Dodd's proposal that money is a product of "monetary networks" (1994: xxiii). Dodd stresses the importance in such networks of the expectation that money "can be re-used later on" (1994: xxiv). There is also a parallel in Dodd's argument to Ingham's *monetary space*, but for Dodd *space* seems to be taken more literally: "the network will depend on information regarding its spatial characteristics" (1994: xxiv). But monetary circles are not ultimately defined by spatiality: they are defined by *who* will accept a monetary instrument and in what circumstances, and spatiality only enters indirectly into the determination of such acceptance. Perhaps the most striking difference between monetary circles and Dodd's monetary networks, however, is that the latter do not relate to single monetary instruments but rather to *both* monetary instruments and units of account (Dodd 1994: xxiv). The concept of monetary networks is thus less fine

grained than monetary circles. Although one could perhaps argue in a general sense that the power of money to be used in payment derives from a complex of monetary circles and unit of account circles, we need to separate these to achieve clarity on the structures at work.

The concept of *monetary circuits* developed by Zelizer provides another significant parallel. Zelizer argues that “every currency attaches to a circuit of exchange and every circuit of exchange includes a concrete set of meaningful social relations” (2000: 385). Zelizer defines *circuits of exchange* or *circuits of commerce* rather more expansively than *monetary circles* (2011: 303-4), in that they are not purely concerned with monetary activities. She does differentiate them from communities, however, arguing that “they typically cut across multiple social sites, coordinating only certain activities and social ties within each of them” (2011: 305). Circuits “do not comprise communities in the sense of closed-off, all-encompassing social relations. Circuits do not differentiate whole social settings or organizations. In fact, the same people participate in different circuits simultaneously” (2005: 294). One might even argue that monetary circles are a sub-type of circuits of commerce, but Zelizer, like Dodd, does not deliver either the specificity as to their role or the connection to a causal powers ontology that distinguish the concept of monetary circles.

The consequence of the knowledge that an instrument will be acceptable in payment to other transaction partners is to generate a kind of trust in the instrument concerned. As Ingham points out, this is not trust in the traditional sense, since it is not trust of one individual by another, not “*personal* trust” but rather “*assignable* trust” (2004: 74) – with money in our hand we may trust that it will be redeemable in transactions with other members of the monetary circle.

Baker has argued that “money contains the ability to command goods, services, and people; it is power” (1987: 110). My argument implies that money is indeed a form of power, but it is not power in general; rather, it is a specific kind of causal power. The power we exercise when we use a monetary instrument is the power to pay (a power that may *contingently* give us the ability to command other resources). This is a power that is produced by the monetary circle that is committed to accepting that instrument in payment. It is not a power of the physical token that acts as a monetary instrument, because the physical properties of the token are not capable of generating such a power; rather, it is a power of the monetary circle itself, a power that only exists when a group committed to accepting the instrument in payment exists. But it is a power that is delegated, in quantified amounts, to the holders of the monetary instruments concerned. We must strip the word *delegated* here of any connotation of intentionality: the monetary circle does not have a consciousness, let alone the capacity to intentionally transfer its powers. But in other respects the word delegation is entirely appropriate: this is a power of the whole, the social entity, the monetary circle, that is *exercised* by one of its parts, the user of the monetary instrument concerned, and there is also a sense in which the delegation is *performed* by another of its parts: the acceptor

of the instrument in the same transaction. The power of money is a socially authorised quantified entitlement to pay, a causal power of a monetary circle that is delegated to payers by payees who tacitly act on behalf of the circle in accepting a monetary instrument in payment, knowing that they themselves may reuse the instrument on the same basis.

The physical tokens involved, whether for example coins, cowries, notes, or electronic records of entitlement, are nevertheless essential elements of the monetary process. They act as what Searle has called “status indicators” (1995: 85). They may need to meet exacting standards in order for this status to be accepted,<sup>13</sup> but the status that they indicate is not a quality of the token itself: it is a quality of the holder of the token, the quality of holding an entitlement, a capacity to pay.

### Structure and operation of monetary circles

Just as units of account depend on a backdrop of related practices and institutions, so do monetary circles. Money, for example, is a development of the institution of property, and this in turn depends on the normativisation of the use of force, generally by the state – Weber’s “monopoly of the legitimate use of physical force” (1946). The state thus appears in the ontology of money in at least two guises. In terms of the institutional backdrop, the state has generally been essential in its role of guaranteeing a system of property rights. But, separately from this, the state may also be (but need not *necessarily* be) a key member of particular monetary circles. Like unit of account norm circles, monetary circles need not consist purely of private individuals, but also typically include commercial organisations and often the state.

A number of sociological commentators have argued that the state’s role is necessarily central. The contemporary chartalist L. Randall Wray argues that “the state writes the ‘description’ of money when it denominates the tax liability in a money of account, and defines the ‘thing’ that ‘answers to the description’ when it decides what will be accepted at public pay-offices” (2000: 58). Knapp’s chartalism invokes not only a state-oriented origins story, but also a more subtle functional argument: the acceptability of a particular monetary instrument in non-state transactions is boosted, perhaps critically, by the knowledge that the state will also accept it and therefore it is relatively safe for others to do so to, knowing that they will be able to reuse it themselves (Dodd 1994: 28). Still, the arguments that were made earlier about units of account in the context of hyperinflation also apply to monetary instruments: although the state, when it is large enough, may usually be able to sustain the acceptability of a given monetary instrument by accepting it itself, this is by no means a guarantee that it will be accepted more widely, nor does it mean that *only* the membership of the state matters in monetary circles.

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<sup>13</sup> These standards are a case of *indexing norms* (Elder-Vass 2012: 69-73).

On the one hand, having the state as a member is not *sufficient* to guarantee the effectiveness of a monetary circle. In the most extreme stages of hyperinflation, even the state's guarantee to accept its own currency may not be enough to persuade others to accept it once the rate at which that currency is depreciating passes a certain point. Davies, for example, reports that in Germany in August 1923 "daily wage negotiations preceded work, wages were paid twice a day and promptly and completely spent within the hour" (1994: 573). State employees may even leave their jobs in order to receive income in the form of a more usable monetary instrument than the official currency.

On the other hand, having the state as a member is not *necessary* for a monetary circle to be viable. The case of casino chips that come to circulate as monetary instruments in some casino towns illustrates this point nicely, as do credits in baby-sitting circles, and the many contemporary alternative local currencies (Dodd 2005: 391-2). Even instruments like credit cards and Paypal<sup>14</sup> may be established quite widely before relatively slow-moving government agencies are willing and able to accept them.

The case of hyperinflation and other forms of monetary crisis also illustrate the point that the continued acceptability of monetary instruments is by no means guaranteed; it is a contingent achievement, and one that depends on both experience and expectations. Those who accept an instrument and then find it is less valuable than they had expected are much less likely to accept it again in the future, and those who believe that wider events are likely to devalue certain instruments may also leave the corresponding monetary circle. Thus monetary circles may be vulnerable to the actions of speculators and they may sometimes need to be bolstered by financial commitments made by the state. These considerations reflect the fact that the acceptability of a monetary instrument is also linked to perceptions of its value and thus to the management of a related unit of account (Dodd 1994: 23). But monetary circles may also depend on wider, less specifically monetary, considerations: the money issued by a rebel government, for example, may cease to be accepted when its fall is anticipated.

Monetary circles, and indeed unit of account norm circles, are also thus subject to influence by the other forms of unequal social power. For example, British colonial authorities ruthlessly imposed the requirement to pay taxes in their preferred monetary instruments: "Flogging, imprisonment and branding with red-hot coins were the penalties for not paying taxes in the money issued and accepted by the state" (Ingham 2004: 55). More subtly, perhaps, discursive power and indeed material incentives may be used to advance one monetary instrument as opposed to others.

While this paper has insisted on the importance of factors that are generally neglected by traditional economics, it is also apparent that major economic players may profit from the development of particular monetary instruments and may therefore offer

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<sup>14</sup> Paypal is often used simply as a payment mechanism to spend other forms of money, but when an individual builds up a balance in their Paypal account and uses it to make purchases, the Paypal account balance itself functions as money.

incentives to others to adopt them. For example, credit card companies obtain commission from merchants who accept their cards as a means of payment, and often offer incentives to cardholders to use their cards, such as air miles or rebates on their bills. The monetary circle for each variety of credit card has been quite deliberately constructed over many years by the financial institutions that profit from them (Evans and Schmalensee 2005: e.g. chapter 6). These companies are intensely aware that the reach and usage of a monetary instrument depends on the range of people and organisations who are prepared to accept it as a means of payment, and they have a range of strategies for widening that group. Those same companies were later able to leverage this expertise, their existing relationships with millions of merchants, and their control over the related communication technologies to build monetary circles for other monetary instruments, notably debit cards (Evans and Schmalensee 2005: 297-302). Today we are seeing the early stages of a new battle to build monetary circles for digital wallets carried on smartphones, in which the power of established financial institutions to control these monetary circles is being challenged by technology companies like Apple, Google and mobile network providers who can bring different technological strengths and different networks of relationships with existing customers to bear (Smith, Anderson, and Rainie 2012).

Money, then, is thoroughly implicated with power. Power is used to establish and sustain monetary regimes, and money's own importance arises most fundamentally because it in turn is one of the most central *forms* of power in modern societies: "Money puts social power in material form into the hands of private persons, who exercise it as individuals" (Marx, cited in Brunhoff 1976: 46). But money also depends on normative structures, it is "a system of social relations based on power relations and social norms" (Ingham 2000: 19). The particular contribution of this paper is to specify the nature of this system of social relations with more precision than the previous literature.

## Conclusion

This paper has developed the beginnings of a social ontology of money. Most previous accounts of money err by treating the so-called functions of money as if they were all performed by the same thing, when in fact units of account and monetary instruments are not the same thing at all. There are two distinct social structures at work here, producing two different although related social phenomena. On the one hand, we have units of account, a cultural, normative phenomenon that is produced by a particular group of *norm circles*. On the other, we have monetary instruments: specific payment devices, the use of which depends upon the existence of a somewhat different kind of social group: monetary circles.

If money is a product of such entities, then views that see it simply as a by-product of rationalising economic behaviour are grossly inadequate. On the contrary, the state, major corporations and normative structures all play a central role in the development and maintenance of monetary phenomena. We must keep in view the *empirical* significance of the state for units of account and monetary instruments and also the

fundamental *ontological* significance of normativity and of social commitments that are not driven by optimising behaviour. But we must also avoid turning this into a dogmatic insistence that it is the state alone that gives money its power: this is a power that depends on complex, contingent, and ever-changing alliances of state, corporate, and private actors, as well as on systemic effects that this paper has not sought to address. Neither norm circles nor monetary circles are simple, egalitarian, monolithic, or unchanging, and they are deeply implicated as we would expect with the dominant forms of power in the societies concerned. But they are nevertheless distinct social structures, social entities, with causal powers that arise from the interactions of their members in monetary transactions, and those causal powers provide us with two of the cornerstones of modern society: units of account and monetary instruments.

This understanding of the ontology of the money provides us with some of the tools required to provide coherent answers to a number of further questions. Why do some units of account and some monetary instruments come to be widely accepted while others do not? What role does deliberate social engineering, notably by states and financial corporations but also by monetary activists, play in establishing monetary instruments and even units of account? In what ways do actors deploy their existing powers to shape these outcomes, and in what ways do they use their influence over monetary structures as a source of power for other purposes?

There are many other important questions on money that this paper has not even begun to address, and further work is certainly required, for example on the empirical details of the argument and its possible implications for the more complex properties of economic systems. But it *has* developed an answer to one of the most fundamental questions: What *is* money?

Money is the power to pay: a causal power of monetary circles, delegated in quantified amounts to the holders of the corresponding monetary instruments.

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