1 What Makes Money Legitimate?

In order to compare different proposals for legitimate monetary governance, money has to be defined first. Where does money come from? In periods of economic stability, this question is posed on the micro level if at all: how can an individual acquire monetary income, how can households make ends meet? Despite the economic system being all about money, the question of money's systemic creation is usually not subject to widespread discussion, because money – like property, a fundamental institution of capitalism – is being taken for granted. This state of affairs tends to change in periods of increased instability. In crisis, systemic questions come to the fore. As money (and, perhaps even more importantly, the lack of it) is the most visible symbol of capitalism, some populist challenges to the economic system triggered by the latter's failure tend to focus their critique on the institutional form of money creation.

Framing a critique of the capitalist system or some of its aspects as a critique of its monetary system is a recurring phenomenon in the history of capitalist crises. Earlier proponents of such a view have found their match in economic theories of their times: in the nineteenth century, anarchist monetary reform proposals of Proudhon and others envisaging a people's bank to provide fair wages were subjected to criticism by Marx (Rakowitz, 2000). In the twentieth century, Keynes dealt with the ideas of monetary reformer Silvio Gesell for systemic forced devaluation of money holdings to counter deflation (Keynes, 1936/1973, 255ff.).

The twenty-first century experienced its first major economic crisis early on. Like most of its predecessors, the global financial crisis starting in 2007 triggered significant public debate around fundamental questions of money. But if someone cared to look there for answers, contemporary economic textbooks did not offer much guidance on the topic. In general, economists agree on defining money as a unit of account, means of payment and store of value. But beyond that, there

is often silence. For example, Mishkin and Eakins' (2009) classic textbook contains detailed descriptions of the working of a central bank and the financial markets, but money is neither defined nor its creation described. When money and monetary policy are discussed in economic textbooks, the presentation tends to be simplifying to the point of misleading (Disyatat, 2008; Lindner, 2013, 5; McLeay, 2014, 1).

Textbooks are consolidated and simplified accounts of influential research trends of the past. But state-of-the-art research before the crisis did not lead much further. The inadequate treatment of money in economic textbooks mirrors the sidelining of money as a subject in economic research. In the macroeconomic models most widely used at the beginning of the twenty-first century, money and its creation does not even play a role. These are dynamic stochastic general equilibrium (DSGE) models, which involve a barter-like economy with perfect financial markets and no cash. Perfection is defined as financial markets' ability to insure individuals and firms against all possible future states of the world. With the future holding no surprises, the possibility of default does not exist. There is costless enforcement of intertemporal budget constraints, and all possible surprises are perfectly insured against with the help of financial contracts, hence there is no need to worry about bankruptcies or strategic default risk (Goodhart and Tsomocos, 2011; Howitt, 2012, 18). In these models, money is just the unit of account in which financial contracts are measured. Barter and financial contracts substitute for cash payments. Central banks influence the inflation rate by setting interest rates, but their role, and the financial sector's role, in issuing and managing money is ignored (Clarida, 2012; Laidler, 2005; Woodford, 2007).

Given this state of affairs in economics, it is no wonder that the monetary issues posed by the global financial crisis embodied a severe challenge to prevailing economic thinking: shifting risk perceptions, liquidity crisis, breakdown of market segments and massive government intervention had a hard time being properly understood in prevailing economic thought. The same goes for public debate. For instance, 'quantitative easing' by central banks, involving a swap of securities held by banks for deposits held only by banks on the central banks accounts, was either misinterpreted as 'printing money' (although no increase in banknote circulation among the public necessarily resulted from that action) or was subjected to the unfounded criticism that banks refused to 'lend out' the money so acquired

(although banks' credit creation consists in extending their own liabilities, not passing on those of the central bank) (Keister and McAndrew, 2009; Taylor, 2015).

In order to understand the current monetary system and the challenge by monetary reform proposals, neither macro textbooks nor state-of-the-art DSGE models lead much further. Our approach is to consider how fundamental debates in the field of monetary theory about the nature of money and the question of its proper governance apply to the current economic system. To understand the political economy surrounding money's issuance and management, we draw on typological frameworks provided by studies on legitimacy and governance in order to supplement insights from monetary theory. From this, a starting point for analysis of reform proposals and a typological framework to categorize them are derived. The central question guiding the inquiry is to examine and compare the ways different monetary governance systems make claims for legitimacy.

1.1 Is There a 'Nature' of Money?

The two most fundamental issues in monetary theory for our context concern the nature of money and the question of money's issuing entity. We begin with the first question. In our brief introduction of views held among monetary reformers, we noted their differing opinions on whether there was too much or too little money around. Is money considered abundant or excessively scarce? Whenever such views are held beyond specific economic situations and form a general view of the monetary system, we can say with relative certainty that they disclose fundamental assumptions about the nature of money. According to Schumpeter's classic survey of economic thought (1954, 288), there are two main approaches: to consider money either as a commodity or as a transferable claim (or credit).

Commodity theories tend to be based on the assumption that money as a social institution has emerged from private exchange interactions on primitive markets, without any non-market interaction or central authority. With exchange relations among commodities established in barter before the arrival of money, the function of unit of account is seen as less important, whereas serving as the 'medium of exchange' (a means of payment in spot transactions) is held as the primary function of money. In Menger's account,

individuals starting from a barter-based economy soon discover the need to overcome its inconveniences. Based on the commodity concerned being the most prevalent among commodities in barterers' preference structure (gold, for instance), the commodity with the highest liquidity ends up being elected to the status of money via decentralized decisions by private market actors (Menger, 1909/2002): because barter traders have noted from past interactions that many people like gold, they will obtain it in order to get the things they need from their trading partners. If the latter happen to have no need for gold, they will likely accept it anyway because they can expect to get rid of it quite easily in their next exchange with someone else.[1]

Interpreted as belonging to the world of markets, money can then be described by the standard supply and demand framework: other things being equal, a higher supply leads to a lower price. In the case of money, purchasing power is considered its main price: an increase in the money supply tends to lead to inflation, provided its 'circulation velocity' is constant. This is the central tenet of the quantity theory of money (Blaug, 1995), which describes inflation as the outcome of changes in the quantity of money. It is based on a number of central assumptions: a) money can be clearly defined (there is a clear division between money and credit), b) it is used mainly as a medium of exchange in spot transactions (or at least used in this function in a constant proportion to income) and c) market mechanisms involve fully flexible prices and full use of all available economic resources. Under these assumptions, there is a direct relationship between the quantity of money available and the price level. This approach tends to attribute extensive self-stabilization capacities to market mechanisms and to favour rigidity in the money supply. Here, money needs to be scarce to retain value. If scarcity of money is not regulated by natural supply limits like in a gold currency, the issuer needs to create scarcity artificially.

In contrast to commodity theory's conception of money as a pure asset, claim theories see money as credit, a transferable claim on the issuer, thereby constituting a social relation. The origin of money is traced back to the imposition of a unit of account by a central authority to record debt relationships (Keynes, 1930/2011, 3) or impose tax obligations (Knapp, 1918). As a fundamental social institution, money enables markets to emerge instead of being their product

(Aglietta and Orléan, 1982, 28). Claim theorists stress the character of money as a liability of its issuer, measured in a unit of account.

When money is credit and credit can take a variety of forms, the distinction between money and credit is less pronounced, depending on the institutional arrangements. Money's credit nature involves the possibility of an elastic quantity of money. In optimistic versions of such an approach, issuing credit money is self-regulating. Here, credit demand signals the extent of money required for economic activity, and money supply serves to accommodate that need. As a result, creation of money will result in a non-inflationary increase of economic activity, as long as issuers make sure that credit is used for productive, not speculative activity (Green, 1989). Less optimistic views on credit money recognize that with elasticity comes possible instability and the opportunity – indeed the need – for monetary management.

In both paradigms, there must be incentives to produce goods and services which can be purchased with money in order to make it valuable. In a simplified closed economy, the value of money consists in its purchasing power. Commodity theories tend to believe that these incentives exist without money: money just facilitates exchange among trading parties which would use barter in the absence of money, based on complementary endowments and preferences. According to commodity theories of money, purchasing power must result from money being (or at least its predecessors having been) a commodity with a specific exchange value determined in the market. Current paper and electronic money are perceived to be valued in relation to this initial commodity (Menger, 1909/2002). In this view, money has to be held scarce, otherwise too much money chases too few goods and inflation results. Gold is scarce by nature; a feature which makes it ideally suited for this task.

In claim theories, it is the need to pay back debt which gives money its value (Ingham, 2004, 75). In order to redeem private debt or pay taxes (i.e. redeem state credit), economic actors engage in economic activity which creates commodities (goods and services) for sale in exchange for money, thereby giving money purchasing power. To preserve the purchasing power of money, it is of essence that new money issued leads to new production.

Now the link between views held by competing camps of monetary reformers on the appropriate amount of money and fundamental theories of the nature of money can be seen more clearly: perceiving the

economy and price stability as being permanently threatened by excessive money creation tends to result from a commodity view of money. Here, the economy tends to be assumed to work at full capacity like a pure barter economy. Crises result mainly from an inadequate supply of money from outside of the economy, threatening equilibrium.

Perceiving the economy as persistently failing to reach its full potential due to a lack of money tends to result from a credit view of money. In this view, an extension of credit money should enable the economy to achieve full employment of resources.

The nature of money and its adequate management were subject to an important debate among proponents of the currency and banking schools in nineteenth-century England (Itoh and Lapavitsas, 1999, 25). Currency theorists held the view that the central bank should strictly limit the money supply in order to prevent inflation. This view was based on a narrow conception of money, comprising coins and notes of the Bank of England only. According to the currency school, paper money should be managed to behave like commodity money. Banks' demand liabilities were not considered as money.

Against this, the Banking School stressed that apart from official money, a variety of other means of payment were used to facilitate transactions in the economy, among them bills of exchange and demand liabilities of banks. These were created endogenously in the private sector according to the needs of commerce. Attempting to restrict the official money supply would therefore fail to regulate the economy (Issing, 1998, 180).

The debate between Keynesians and Monetarists in the twentieth century took up many of these issues. According to Monetarism's interpretation of the quantity theory of money, the long-term demand for money can be expected to be more or less stable and inelastic to changes in interest rates, whereas Keynesians maintain the opposite with a focus on the short run (Goodhart, 1989, 83). In the latter school, the money supply in the wider sense (i.e. the total quantity of means of payment in the economy) is seen to be determined by economic activity, especially private credit creation (Galbraith, 1975, 207). Monetarism's advice for monetary policy to adopt a money supply target became influential in the 1970s when central banks in many countries were faced with increasing inflation rates and were looking for new approaches to signal a regime change. But facing severe difficulties to identify stable money demand, with whatever definition concerning the

composition of the money supply, policymakers soon returned to interest rates as their main instrument in the context of some form of inflation target (Bindseil, 2004, 233).

Current economic theory is dominated by neoclassical economics. While it has many variants, most accounts refer to Menger's theory of money. Menger stresses efficiency reasons for the adoption of money, and believes in the market-driven emergence of social institutions like money (Menger, 1892, 249). These features make Menger's explanation attractive for neoclassical economics, which tends to stress the key role of markets for economic efficiency.

But paradoxically, the approach struggles to find a role for money in its models (Hahn, 1987/2005). In general equilibrium analysis, money is understood as a unit of account (Woodford, 2007). That is not really in line with Menger's stress on money's main function as the 'generally accepted means of exchange' (Paul, A.T., 2009, 253), but functions other than the unit of account are hard to reconcile with the assumptions underlying this approach. The economy is understood as an extended form of barter economy, where every act of sale immediately leads to an act of purchase. This results in full employment of all available resources and stability of the economy in the present.

Uncertainty about the future is eliminated by insurance contracts, where uncertainty is transformed into risk and every possible future state of the economy is insured against – that is defined as a state of 'complete markets' (Howitt, 2012, 18). Credit and debt are not given special attention, as credit equals debt in the aggregate and default is assumed not to happen. Therefore, fluctuations or crisis will only result if there is some form of 'external shock' (e.g. a natural disaster or distorting policy interventions). With no uncertainty and 'complete' markets, neither money as store of value nor as means of payment is needed: wealth is supposed to be stored in higher-yielding assets, and payments can be made by crediting accounts instead of paying cash.

While in the strict sense, this model does claim no more than to identify conditions under which stability can be expected, it is more often than not conflated with an approximate description of the actual working of the economy. It also serves to make predictions about the latter's behaviour. At least its assumption about the inherent stability of markets is central to most policy recommendations based on neoclassical economics.

While the debate is about the definition of money, it also involves different views about its functions. Currency theorists tend to concentrate on the use of money as a means of payment in spot transactions ('means of exchange'). In this framework, the quantity theory suggests keeping money tight in order to avoid inflation while markets for products and services can be counted on to stay on the equilibrium path.

Banking theorists stress that money is also used as means of deferred payment (being created with credit creation and destroyed when paid back) and as a store of value. These latter two functions can lead to instability in the relation between the money supply on the one hand and economic activity and price developments on the other: in times of crises or heightened uncertainty, money may be increasingly used to pay back debt or to store wealth, while its use as means of payment in current transactions is reduced.

Beyond that, money can also be spent on either investment (financial or non-financial) or consumption. By implication, an increase in the money supply does not necessarily translate into a higher price level: it depends on what purposes money is used for and whether there is spare capacity which allows (and competition which forces) producers to satisfy increased demand without rising prices, or to build up further capacity, thereby increasing income, or whether the economy is at full capacity, with new money just inflating the prices of commodities (or financial assets) with inelastic supply.

1.1.1 An Unresolved Debate

Most observers see more historical evidence in support of claim theories (especially from disciplines outside economics), whereas commodity theories are stronger in formalization than in empirics (Goodhart, 1998). Overall, the debate can be considered inconclusive, as its focus on historical origins of money runs into empirical and conceptual limits.

Some commodity theorists acknowledge the historical inaccuracy of their theories of money's emergence, but deny the relevance of this criterion and stress the justification of a logical derivation of money. According to Dowd (2001), proving that money theoretically could have emerged spontaneously from barter suffices to make such a scenario a benchmark for policy advice. Such an

argument evokes a rehearsed defence of neoclassical economics by reinterpreting it as a normative frame of reference instead of a descriptive tool. But the argument fails to specify how much divergence between the highly idealized assumptions of neoclassical economics and economic reality any model-based statements can support without becoming invalid.

Commodity theorists of money assume a pre-existing commensurability of commodities, implying that exchange relations (relative prices) among commodities are established without money. Given a larger number of commodities, a decentralized form of price determination and the exchange relation to all other existing commodities as the only way to express prices under barter, it is hard to imagine how such a system could achieve something like homogeneous prices for individual commodities (Ingham, 2004, 25).

The focus on spot transactions in exchange-based theories ignores the importance of debt relations which can be considered a precondition for industrialized capitalism (Ingham, 2004, 26).

Commodity theories of money also fail to recognize the informational difficulties of using precious metals as money, which are not easily checked for value in the absence of third-party reputational intermediaries, certifying quality in the process of minting (Goodhart, 1998, 410). After the establishment of mints, the need for protection from theft and the incentives to opportunistically dilute the value of coins favour state protection of the mint: because, apart from its legitimacy and its monopoly on violence, strong government can offer a sufficiently long time horizon to make abstinence from short-term value manipulation credible (Goodhart, 1998, 412).

Rarely has pure precious metal served as means of payment. Among other effects, minting coins out of raw metal under the control of political rulers made identification of the value embodied in monetary pieces easier. When coins minted by different authorities were circulating within the same territory, as was commonplace in Europe in the middle ages, private money dealers offered specialist services to assess their value for users. The establishment of nation states in the nineteenth century on the European continent went along with a unification of national monetary systems. The state promoted a homogeneous system of notes and coins, eliminating a large potential for insecurity, fraud and costs resulting from its heterogeneous forerunners. Menger does acknowledge the important role of the state in providing such

services. But in his view, these are just contributions to the perfecting of money after its discovery through the market (Menger, 1892, 255).

Anthropological research sees early forms of economic activity as dominated by group activity, power relations and social rules, a far cry from the models of barter among individuals underlying (neo)classical economics (Graeber, 2011). In this view, anecdotes of commodities being used as early forms of money fail to recognize that these were mere payments in kind of debt denominated in some abstract unit of account (Ingham, 2004, 34). Menger concedes the existence of economic systems before barter, but excludes them from his analysis (Menger, 1909/2002, 27). Thereby he rules out the possibility that any precursors to money might have originated from outside barter. The neoclassical tradition building on this approach has continued to stick with a barter-based conception of the economy and faces huge difficulties in integrating money at all (Shi, 2006).

Credit theorists define money as credit because issuers promise to accept it in payment of liabilities. State-issued currency usually goes along with an exclusive acceptance of that currency in order to settle tax obligations. In some versions, the credit nature of money is also said to consist in money being a claim on goods and services in a monetary space defined by the unit of account (Ingham, 2005, xx).

The last of these arguments suffer from an overextension of the term 'credit'. Payment in money form differs from payment by credit in terms of finality. And a general claim on resources, resting on the hope in the future acceptance of money by sellers of goods and services at certain prices, differs in important aspects from the specific and enforceable claim involved in a credit relation which details unit, amount and timing of repayment by a specific debtor. Similarly, to subsume money under the broad notion of credit including obligations in gift economies mingles interpersonal trust-based relationships and formal obligations enforceable by courts in modern societies (Ganssmann, 2012, 113).

Credit theories can claim at least some historical evidence to support their view (Ingham, 2006). According to Grierson (1977), money may have its origin in fines to compensate personal injuries ('Wergeld'): in order to prevent retaliation for injuries in personal conflicts by resort to force, early states installed fines for a number of such injuries. Thus, the idea of equivalence among qualitatively different acts was established, which can be seen as an essential precondition for exchange of

commodities. An abstract unit of account enables the emergence of markets.

In such an understanding, the unit of account is therefore the prime function of money. Commodity theorists justify the lack of historical support for their theories with the argument that the stage of barter would likely have lasted such a short period of time that no written records are to be expected (Murphy, 2011).

A stronger argument is that it is hard to imagine how an authority could have invented money out of the blue without there being some kind of commercial practice established before, creating the need for such an invention. Decreeing a unit of account presupposes a complementary mechanism for the valuation of goods and services (Ganssmann, 2012, 81). The alleged need for someone to credibly predict advantages of money and motivate others to cooperate is held against the scenario of state invented money (Ganssmann, 2012, 93). But this argument neglects the possibility of market uses of money being an unintended consequence of its invention for entirely different purposes.

Whatever conclusion is drawn from this debate about the origins of money, its status for the understanding of contemporary money is not clear. After all, social institutions can change their nature during their evolution, and historical processes do not necessarily serve as a blueprint for the future (Dow, 1985, 169).

In a historical perspective, the extent to which commodity- or credit-based conceptions of money prevailed was subject to periodic changes. As a general rule, periods of peace and political stability encouraged the spread of credit money, whereas in times of war and turbulence, metallic money systems advanced (Graeber, 2011). Many political disruptions have been triggered by monetary disorder and the other way around (Goodhart, 1998, 414). Given the limited empirical evidence on the origins of money and the many changes the monetary system has undergone in its history, we conclude that the search for some invariant nature of money might be less relevant than a look at institutional arrangements in specific historical periods. We will come back to the question of money's nature later in this chapter in the context of a discussion of the current monetary system. Before we can proceed, we have to explore a second debate of fundamental importance for understanding money.

1.2 Legitimacy

The debate about the nature of money is not the only issue dividing the field of monetary theory. A second major issue relevant to our context concerns the question of who is able to legitimately issue and govern money. In our brief introductory presentation of monetary reformers, we noted that beyond the question of the appropriate scarcity of money, they are also divided over whether they see banks or central banks as the main culprits for the global financial crisis. This debate is about legitimate governance. Before going into more detail, the terms legitimacy and governance will be clarified.

In a decentralized system of decision-making like capitalism, no single governing agency is able to completely determine outcomes of social interaction. While the state and its institutions dispose over the monopoly of force, they face limits in an economic system based on private property rights. In order to encourage cooperation by the governed, governance institutions in general require legitimacy. Legitimacy can be defined as an attribute of institutions which enables them to induce compliant behaviour of stakeholders even in the absence of complete overlap between the latter's views and a governing institution's requirements as embodied in rules and policies.

In social science traditions referring to both Antonio Gramsci and Max Weber, legitimacy is considered necessary for efficient and liberal rule (Giglioli, 2013). Enforcement of rules that relies on force alone would require such an amount of effort, that costs would be high and individual freedom restricted to a considerable degree, whenever rules contradict the views, interests or preferences of citizens. Citizens will follow rules more willingly if these rules are perceived to be legitimate. As monetary systems involve decisive rules for the working of the whole economic system, the legitimacy of money's governance can be considered a decisive feature of every monetary arrangement.

In the history of early capitalism, pre-democratic rulers were faced with limits to authority with respect to both raising and issuing money. This history is rich of examples of failure by sovereigns to meet tax revenue targets, failure to find acceptance of sovereign coins at face value in private markets, and even failure of sovereign coins to find acceptance in private markets at all. In order to raise finance and issue

money successfully, governments found that they had to acquire legitimacy (Braudel, 1992).

Legitimacy is a relational concept, involving an assessment of institutions by people affected by their operation. Therefore, there can be no time-invariant technical ex ante criteria to define legitimacy. Typologically, input and output legitimacy can be distinguished (Habermas, 1973, 655). Output legitimacy refers to the ability of an institution to 'get the job done', its performance with respect to its established goals ('government for the people'). Input legitimacy refers to the extent that an institution can claim to express the will of the people, represent stakeholders ('government by the people'). Democratic legitimacy consists of a combination of these two dimensions (Scharpf, 2006, 2). Widespread trust that institutions embody a sufficient degree of legitimacy can be considered a precondition for their effective functioning.

At this stage, we have to distinguish between legitimacy of money in general and legitimacy of a specific currency and the governance mechanisms supporting it. Money in general is a fundamental feature of a capitalist economy, whose legitimacy is tied to the legitimacy of the economic system of which it is a part of. Money currently takes the form of mostly national currency systems. The legitimacy of each currency must be secured in relation to other currencies in terms of the extent to which they fulfil the requirements of money dictated by the economy.

Eroding legitimacy can be inferred from steep declines in the use of a currency, its market value, and from mounting pressure by stakeholders on the responsible institutions to adapt. We can categorize the options of stakeholders not convinced by the legitimacy claims of monetary governance by making use of Hirschmann's (1978) distinction between 'exit' and 'voice'. By switching to a different currency, stakeholders can withhold their contribution to securing output legitimacy of a national currency's monetary governance. When such behaviour spreads, general acceptance of a currency may erode ('exit'). Or they can use input legitimacy channels to demand changes to existing governance arrangements and their policies ('voice').

1.3 Governance

The term 'governance' refers to modes of coordination of interdependent activities (Jessop, 1998, 29).[2] The debate about the historical

origins of money involves claims about different forms of governance responsible for money's emergence. Whereas commodity theories see money as being invented by markets, credit theories tend to see money as intrinsically linked to some form of authority or hierarchy from the beginning. From these rivalling interpretations, most accounts infer normative prescriptions about proper monetary governance, claiming superiority of specific governance arrangements in providing input and output legitimacy.

For the context of putting money into circulation and managing it, it is useful to consider three possible modes of governance: hierarchies, markets and communities (Bowles, 2006). The first can be considered a centralized form, whereas the latter two can be considered decentralized forms of governance.

1.3.1 Hierarchies

Hierarchies are institutions based on command as coordination device. Functioning state and corporate bureaucracies involve a chain of command from the top level to institutions and employees under their authority. Decision-making within these institutions is centralized and formalized, and rests on command over resources.

Beyond the authority over its employees based on employment contracts, the state disposes of the law as an instrument to make decisions binding for citizens and the monopoly of violence to enforce it. Effectiveness of these instruments depends on legitimacy granted by citizens.

Input legitimacy claims of liberal democratic states refer to citizenship and voting. They currently rest on elections and parliamentary and juridical control of the executive. Output legitimacy is claimed by modern states through both their ability to make their decisions binding for activities within their territory due to their monopoly of force and their size, which gives them market power in economic transactions. This status enables states to achieve outcomes that can be justified with reference to the will of the electorate.[3]

In the case of corporations, there are various conceptions of the reference group for input legitimacy. In general, they are based on private property: claims to input legitimacy can be made with reference to owners' formal roles in decision-making (as embodied in the term 'shareholder democracy' – see Engelen, 2002). Also, the

attempt to incorporate consumers' preferences in products offered can be interpreted as a way to seek input legitimacy. Involving employees in formal decision-making is a further form to claim input legitimacy, albeit rare in capitalism. To some extent, regulation is a way to submit corporations to citizenship-based input legitimacy mechanisms. Output legitimacy is usually claimed on the basis of economic success on markets and conformity with established rules and regulations.

Money in socialist economies in the twentieth century, where the state was monopoly issuer and governed the whole banking sector in a mono-banking system, can be considered as an example of money based on pure state governance (Itoh and Lapavitsas, 1999, 251ff.). Vouchers issued by corporations to customers that are accepted by other merchants in payment may serve as an example of corporate proto-money (ECB, 2012).

1.3.2 Markets

Markets are institutions based on private property and competitive exchange. Input legitimacy for markets is claimed on the basis of market outcomes being the result of decentralized economic decision-making of individual property owners, and therefore representing a form of aggregating individual preferences. Competition is regularly referred to as the key basis to claim output legitimacy for markets if its outcomes conform to notions of efficiency, meritocracy and other attributes.

The era of free banking in nineteenth-century America and other countries can be considered an example of a monetary system largely governed by market competition, as favoured by the Austrian School of Economics (White, 1999).

1.3.3 Communities

Communities are groups of people connected to each other, involving repeated interaction possibly giving rise to instruments (trust, mutual surveillance and peer pressure etc.) enabling informal enforcement of norms.

There is no specific way in which communities can provide for input legitimacy. Informal membership-based input legitimacy mechanisms

in communities can consist in informal forms of participation, democratic deliberation and voting procedures, or informal hierarchies.

Communities can achieve output legitimacy by forms of peer pressure: by appealing to group members' solidarity and trust, invoking norms like reciprocity, pride and respect, and employing the threat of sanctions like retribution or exclusion from the group, they can promote individual behaviour conforming to desired social outcomes (Bowles and Gintis, 2002, 428).

Regional mutual credit systems relying on trust (and the threat of brutal sanctions by creditors) in the European middle ages can be considered historical examples of community-based monetary governance (Graeber, 2011, 313).

1.3.4 Meta-governance

Governance modes of money and other sectors of modern society are rarely self-appointed or self-sustained. Their responsibility for their object of governance is usually established or codified and supported by some superior institution (law or delegation by the state). On this level ('meta-governance', see Jessop, 1998), the rules of the game are devised, according to which roles and rooms of manoeuvre for governance modes are assigned in the area concerned. Meta-governance 'involves the design of institutions and generation of visions' which can contribute to the coherence of governance activities (Jessop, 1998, 42). While in most cases, these rules of the games will be set and upheld at the state level, also corporate hierarchies or decentralized forms of governance (markets, voluntary associations) might attempt to fulfil that role. Usually, the state will have superior chances to secure that rules of the game are binding.

1.4 Who Should Govern Money?

Equipped with the concepts legitimacy and governance, we can now turn to the second major issue in monetary theory relevant for our context: who should be responsible for issuing and governing money? Which entity can provide legitimate monetary governance? On this question, supporters of centralized and decentralized governance can be distinguished.

Provided that money is not a commodity like any other or some natural resource freely available, it needs an issuer. According to claim theories, money needs an issuer due to its inherent nature of being a claim on the issuer. According to commodity theories, an issuer is needed for practical and efficiency enhancing reasons (certification of value, standardization etc.).

Most monetary theories see a key role for the state in monetary governance. In chartalism, money is by definition a creature of the state (Knapp, 1918). Here, the state institutes the validity of money by declaring it legal tender and accepting it in discharge of tax obligations (Davidson, 1996; Ingham, 2005, xxi). The fact that currency areas coincide to a large extent with national borders is seen as significant support for this reasoning (Goodhart, 1998, 420). This coincidence is the result of a historical process of monetary unification within national borders that accompanied the spread of nation states in Europe in the nineteenth century (Cohen, 2006, 4). It has a political and an economic component. Politically, issuing national currency can be considered a potent political symbol (Cohen, 2006, 17; Davis, 2008, 1106), and it is widely seen as an aspect of national sovereignty in line with the national army and police (Dyson, 2009, 20). Transnational currency areas not supported by political unification (e.g. the euro area) are therefore met with some scepticism by chartalist scholarship (Goodhart, 1998).

Most economic theories focus on efficiency reasons for and effects of a strong role of the state in monetary governance. While denying the relevance of the state for the emergence of money, commodity money theory grants an efficiency enhancing role to the state in money's further evolution. According to Menger, only the state can properly provide the public good aspects in monetary governance: the permanent provision of certified means of payment denominated in a common unit of account according to the needs of trade. Based on this infrastructure, trade and credit are facilitated and economic uncertainty reduced (Menger, 1909/2002, 45).

Further economic arguments lend support to the state's key role in monetary governance across dividing lines among competing economic theories. Sitting at the centre of the payment system can be interpreted as a natural monopoly. Having the greatest potential access to resources among entities in the economy (based on issuing currency, collecting taxes and its unique ability to coordinate resources to make

commitments credible), makes the state and its institutions the most credible entity for the task of stabilizing the economy and its financial system, the so called 'lender of last resort' (Pistor, 2013, 323).

A currency is subject to network effects (Aglietta, 1994): its utility for every individual user rises with the number of participants in the network. The state has a decisive advantage in comparison to any private contender offering its own currency: unlike any private entity, the government is in direct communication with every other economic agent in the economy by collecting taxes and by being the single biggest transaction partner in the economy (Shubik, 2000, 3; Mehrling, 2000). If the state accepts and uses exclusively its own currency in all its transactions, it will establish a critical mass of users against which any competing domestic currency networks will hardly be able to compete. Once a network is established, switching costs and difficulties to coordinate expectation changes among users lead to inertia with respect to network choice as long as performance differentials among networks do not transgress a certain threshold (Dowd and Greenaway, 1993). Typically, it is only when fluctuations in a currency's purchasing power are considered excessive that users start switching to a different currency.

Among issuers, governments are held to be the only actors with a sufficiently long time horizon to act as reliable guarantors of monetary stability, provided appropriate safeguards against countervailing short-term incentives to over-issue are in place (Goodhart, 1998, 415).

States have always profited from issuing money because they were able to capture seigniorage. In coin-based monetary systems, seigniorage consists of the difference between production costs of money and its face value. In contrast, monetary income in contemporary monetary systems results from earnings received on assets held by central banks as a counterpart to their monetary liabilities. While seigniorage motives have historically played a significant role in the state's monetary issuing activity, state-promoted development of capitalism in recent centuries has led to a shift in motives. Modern states depend on and promote a prospering economy, for which money is considered a key infrastructure. Governance efforts are directed at maintaining legitimacy of currency in that context (Menger, 1909/2002, 46; Ugolini, 2011).

Concerning the effects of currency areas supported by national states, monopoly of a single currency in an economic area allows stabilizing monetary policy, increases price transparency in markets,

facilitates trust in money by reducing the number of issuers users need to collect information about, and thereby reduces transaction costs. Money is therefore held to have some aspects of a public good (Schmitz, 2002).

Gurley and Shaw (1960) introduced the term 'outside money' to characterize money that is a pure asset issued by the government and injected into the private sector. This is to distinguish it from 'inside money', which is a liability of the issuer created against private debt. The terminology suggests the possible coexistence of a multitude of issuers from both the private and the public sector within a given currency area.

Another widely used term in this context is 'fiat money'. It refers to means of payment consisting of an intrinsically useless asset with no backing and inherent quantitative limit whatsoever. Some authors use the term to characterize state-issued national currencies based on banknotes not redeemable in valuable assets held by the issuer, and contrast them with currencies based on either coins containing precious metal or banknotes redeemable in the latter (Lagos, 2010, 132).

While the majority view in monetary theory supports at least some of the arguments mentioned above in favour of the state's 'governance by hierarchy' in monetary affairs, there are also approaches favouring decentralized forms of governance for money. Among those, supporters of market governance can be distinguished from supporters of community governance of money.

Ideas for market governance of money are derived from market liberal mistrust of the state. In his later work, libertarian economist Friedrich Hayek extended his long-held scepticism against the state's involvement in economic affairs to the management of money. Because 'all governments of history have used their exclusive power to issue money in order to defraud and plunder the people' (Hayek, 1976/2009, 16), Hayek proposes to introduce 'choice in currency'. Private issuers are to be allowed to issue their own banknotes based on asset backing of their own choice. Market competition is expected to lead to the adoption of the most attractive currencies. The input legitimacy provided by 'free choice' is assumed to support the public acceptance of such a system. Network effects of money are neglected by Hayek. Electronic devices to automatically compare prices in different units of accounts are expected to solve the problem of transaction costs posed by the presence of competing networks (Hayek, 1976/2009,

19). Within the 'Austrian School of Economics' tradition, Hayek's vision is not uncontested, but does still enjoy some support (Herbener, 2002).

While this market-based governance conception focuses on currency competition, community-based governance conceptions promote 'complementary currencies', intended to circulate in parallel to state-issued currency. Complementary currencies are defined as 'an agreement within a community to accept something else than legal tender for the exchange of goods and services' (Kennedy/Lietaer, 2004, 69). Complementary currencies are seen to fulfil tasks that official currencies do not fulfil, or do not fulfil to a sufficient degree. Producer-administered consumer loyalty schemes, virtual computer game currencies and regional currencies are examples subsumed under the notion of 'complementary currencies' (Castronova, 2014).

In complementary currency approaches, the growing cross-regional division of labour and interdependence of markets that were historically promoted by the growth of currency areas are perceived as undermining self-reliance of regional communities and the autonomy of producers (Davis, 2008, 1112). Complementary currencies built around and governed by communities are perceived as facilitating greater autonomy and being more democratic.

Both approaches contest the economic and political claims made by supporters of state-based governance of money. Instead of network effects, 'legal restrictions' for the production of private banknotes and coins are held to be responsible for the dominant role of state-issued currency (Wallace, 1983). The unification of national currency areas in Europe is ascribed to the state's power hunger more than to efficiency gains derived from that process (Hayek, 1976/2009, 16; Kennedy et al., 2012, 47). In concepts for decentralized monetary governance, money's function as unit of account and the network effects it is subject to are perceived to be less important than its role as a medium of payment. In competitive governance concepts, this is based on assuming hyper-rational individuals able to overcome any informational barriers resulting from competing units of account. In complementary currency concepts, division of labour is to be contained within smaller communities based on separate units of accounts, expressing the will of local communities.

The debate about the appropriate entity to issue and govern money is driven by diverging assumptions about the legitimacy of different

governance modes. More than just a narrow economic debate about efficiency properties of competing conceptions (output legitimacy), this debate is strongly rooted in differing conceptions of democracy (input legitimacy). How do proposals concerning legitimate governance relate to understandings of democracy?

1.5 Governance, Legitimacy and Democracy

The importance ascribed to input vs. output legitimacy and views on the appropriate governance mode to achieve it vary with concepts of democracy and the goals to be achieved in the area to be governed.

The most pervasive political form of the state in advanced capitalist nations is commonly understood as liberal democracy. Here, the term 'democracy' refers to citizenship-based input legitimacy procedures of states: parliamentary elections and control of the executive by parliament (Cunningham, 2002, 27). In this understanding, community governance is seen as archaic leftover of a bygone pre-modern era without contemporary relevance (Bowles and Gintis, 2002). And markets are seen as being susceptible to failure in providing equal access and produce socially desired results, therefore state regulation, supervision and taxation of market participants is needed in order to secure input and output legitimacy, on top of the state's role in protecting property rights and the rule of law.

A central conflict between input and output legitimacy based on such a conception, stems from capitalism's relationship with liberal democracy. Far from being characterized by continuous harmony, capitalism and democracy entertain a contradictory relationship (Offe, 2006, 123). For its own operation and to claim legitimacy among the electorate, the state is dependent on the resources provided by the capitalist economy. The state supports capitalism by providing basic institutions like assurance of property rights and by compensating for dysfunctions and externalities of the market mechanism in order to secure the legitimacy of the economic system. In order to fulfil these functions, the state needs relative autonomy from the economy. But this autonomy is limited: state interference in the economy based on democratic input legitimacy is limited to a large extent by the principle of private property on which capitalism is based (Scherrer, 2014a).

Capitalism being characterized by inequality of property ownership and democracy by formal equality among citizens, the social system

oscillates between the logic of democracy and the economic logic as each logic attempts, but inevitably fails, to assert its dominance (Bailey, 2006, 19).[4]

Apart from liberal democracy and its concept of legitimate state governance, there are competing concepts of democracy that claim democratic quality also for other governance modes. In what could be labelled 'market populist' discourse (Frank, 2000), markets are seen as a better form of democracy than the established procedures claiming democratic legitimization for the state. In this view, markets give a more authentic representation of the will of the people than representational politics. The force of competitive markets is claimed to disrupt economic and political power relations. In market populist thought, citizens are cast as consumers and small producers, and the market as a kind of democracy securing both input and output legitimacy (Mises, 1962, 443). Market populism conceives of individual economic choices concerning consumption, investment and saving as voting acts which provide input legitimacy for markets and can be ascribed a democratic quality. The concept of 'shareholder democracy', which refers to input legitimacy provided by owners of corporations, is a prominent variant of such an approach (Orléan, 1999, 261).

Proponents of community governance see its possibilities for direct participation as democratic features. In a strict sense that notion applies to forms of community administration that fulfil criteria of participatory democracy (Cunningham, 2002, 123).

Power effects and manipulation of public opinion undermining equal participation of citizens, conflicting views paralyzing decision-making, suppression of minorities, ineffective public administration and other problems are always present threats to the democratic nature of formal democracy (Cunningham, 2002, 15ff.). These aspects can nurture support within society for different understandings of democracy. For our purposes, there are two important attributes which distinguish democracy in the sense of voting for representation in a state context from other definitions. At least formally, it provides for a clearly defined reference group, and for equal voting rights – 'one person, one vote' – for all citizens fulfilling criteria laid down by law. Formal membership allows formally equal inclusion of all those currently concerned by a decision (as long as the decision's consequences are restricted to the nation state concerned). Neither of these two is provided by market and community governance. The boundaries of

group membership for input legitimacy are unclear and equality of participation for members is not an intrinsic feature.

There is a long-standing debate in economics and related disciplines about the strengths, weaknesses and possible failures of different governance modes in providing output legitimacy for various purposes (see Bowles, 2006; Ostrom, 2010; Jessop, 2011).

One frequent feature underlying descriptions of the three modes of governance based on ideal types is to assign specific attributes to each mode: power to hierarchies, competition and efficiency to markets, trust and informality to communities. Empirically, all these phenomena can be observed in all three governance modes: power and trust underlies market relations and sustains hierarchies, power can emerge in market and community relations, hierarchies can become powerless when losing legitimacy, and efficiency can be an outcome of all three governance modes. Concepts employing any of the various governance modes will have to be assessed according to whether they go beyond ideal type assumptions and recognize such real-world features.

Legitimacy claims based on expectations relying on ideal types of governance modes are vulnerable to disappointments. In such constellations, economic and political crises can shatter established compromises and trigger a search for a new settlement (Minsky, 1986/2008, 45), where new mechanisms to secure input and output legitimacy are negotiated.

We will now take a closer look at how the concepts introduced so far can be applied to describe the current monetary system under capitalism.