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Between heterodoxy and orthodoxy: The pursuit of a "third way" in monetary theory and its implications for the global political economy

by

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Abstract

The agenda of this research dissertation is the exploration of a "third way" for theorisation in monetary theory and a study of the implications of this for contemporary deliberations on the effects of monetary policy on the global political economy. Traditionally, such questions are polarised according to the traditional ideological and paradigmatic positions, emanating as they do from academic debates between orthodoxy and heterodoxy. These academic debates similarly revolved around money and its origins. In many ways, the results of the "*Methodenstreit"* or "method debate" represent one of the great deceptions of the twentieth century. Humanity is presented with two oppositional arguments. The logic of the state and the logic of the market. The logic of the state begins from a position of debt, where society is constituted by groups and individuals indebted to one another, with no hope of ever repaying this. The logic of the market begins from a position where all are individuals and none indebted to anybody. These arguments are mutually exclusive, incompatible and oppositional. Similarly, as presented, each claims sole ownership of any real prospects for human organisation. But this dichotomy is false and moreover historically inaccurate, resting on nothing more than fictions.

The project of this dissertation is to locate theories, paradigms and ideologies which fall between such arguments and look to actual historical and market practices, worldwide, for a more realistic depiction of the production, circulation and historical origins of one of the most important institutions in the modern world, money. Beginning with a critique of traditional conceptions of its origins and governance, the research will explore alternative theories of money, often marginalised, and the production of value to find theoretical consistency with an ideology that has, since its inception, pursued a "third way" between the liberal and socialist traditions which influenced orthodoxy and heterodoxy, respectively. Furthermore, this research will also present alternative forms of money which emanated directly from this positive anarchist tradition in economic theorisation.

Keywords: International political economy, international monetary and finance structures, anarchist economics, monetary theory, central banking, complementary currencies.

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“Liberty is not the daughter but the mother of order.” – Pierre-Joseph Proudhon

Introduction

The driving question this research dissertation will ask is if there is a "third way" or "alternative" to the dominant paradigms and ideologies which scholars can use to interpret and understand the workings of the international finance and monetary structures. Traditionally, such scholarly inquiry is delineated between orthodox and heterodox schools of thought. This methodological divide is the result of academic disputes between the German historical (heterodox or nominal) and Austrian (orthodox) schools of inquiry toward the end of nineteenth century, known as the "*Methodenstreit"* ("method dispute") (Louzek 2011).

The academic dispute revolved around the relevance of general theory in the social sciences and the bearing of history in elucidating the dynamics of human agency. The German historical school contended that novel social laws would result from the combined study of material history and statistical analysis, resulting in their scholarly attention being focused on institutions as the largest and most dynamic variable that would reflect changes in the political economy. Contrastingly, the Austrian school contended that economic study resulted from philosophical logic, developing rules from principles in a deductive manner (Von Mises 2003 [1969]: 7). In this way, the Austrian school believed that agent interactions or human motivations were too complex to be applicable to statistical enquiry and could be inferred from universal or general theories of human action. Significantly, the investigation of money was an important issue in the academic divide. Much of this has to do with money's critical importance as a medium of exchange or means of unilateral settlement (payment), a unit of account (or measure of value) and a store of value, as these functions are critically important for the emergence and continuation of modern, civilized human agency (Ingham 2004: 3).

Money also appears on the institutional scene at the same time as the arrival of the earliest forms of modern state, in a historical era which birthed a number of familiar modern institutions, and a prominent issue of contention between the orthodox and heterodox schools involved in the "*Methodenstreit"* revolved around whether money's functions account for its nature and existence, or the other way around. Framed academically, the dispute revolved around the question of whether an abstract measures prior existence is needed to establish a uniform value standard for the medium of exchange. Orthodox inquiry concentrated on the

monetary function of a medium of exchange, with all the other functions subsumed after its use as a means of unilateral settlement. Heterodox thinking contended that money only exists in relation to its function as a unit of account (or measure of value). In the heterodox account, money consists of claims and credits, and not simply tradeable objects or their representations. Here, an abstract unit of account logically precedes the other monetary functions, while facilitating the existence of pricing and debt-based contracts, which are all requirements for the occurrence of extensive multilateral exchanges (Ingham 2004: 3-4).

Orthodox analysis of the problem continues to not place any great theoretical significance on money, but maintains an understanding thereof as a commodity. This is so, despite the demise of precious metal standards and general declines in the purchasing power of many currencies. Ironically, this analytical structure is derived from Aristotelian commodity theory which considers money as something that acts as a medium of exchange because it possesses value. This theoretical marginalisation of money's importance has resulted in orthodox theorists' ignorance of the material realities of markets and state's throughout history. Regardless of regime type, states have persistently treated money as a very special commodity, and have established and sustained monetary sovereignty with strict, and often violent and brutal, control. Likewise, monetary supply has not historically been allowed to freely respond to demand, and monetary scarcity has often resulted from strategically constructed political and social arrangements (Ingham 2004: 8).

Equally, orthodoxy has preserved the neutrality of money as a fundamental tenant. Here, money is considered a neutral veil that covers the working of the real economy. In the long run, it is neutral because variations in quantity will affect only the level of prices, not growth or output in the economy. This idea was applied to policy in the late 1970s and early 1980s, along with the quantity theory of money, which held that regulation of the amount of money in circulation would regulate inflation, as it did under the gold standard. Insisting on the neutrality of money, however, seems oblivious to the apparent contradiction in asserting that something which is a neutral veil, public good, and without efficacy, should be meticulously and centrally controlled. Similarly, monetarists could not seem to agree what, exactly, money is or how it enters an economy, making regulation a lot more like compiling lists of commodities and tracking their quantities and velocities, while measures of money steadily multiplied.

It also became apparent that the imperfectly measured and identified quantities of money did not relate as closely to prices as proximately as the theory maintained (Ingham 2004: 8). Though its tenure as a practical policy prescription was short lived, the underlying theory on which it is based was maintained by mainstream economic theorists, with minor corrections. Consequently, a very similar conception of money persists. Quantity theory's maxim of long-term monetary neutrality in the equilibrium of real economic variables and nominal money persists as the apparent foundation for policy. But, all that contemporary orthodox analysis really does is to relate the identification and classification of the different forms of money and their circulation to the essential nature or quality of 'moneyness', which is a categorical error that has endured since classical Greek commodity theory. This position fundamentally misunderstands the institution and can thus provide little foundation for effective policy, resulting in an almost incoherent relationship between practical monetary policy and the orthodox concept of money in economic analysis (Ingham 2004: 9).

After sociology split from economics in the late 1920s and established separate departments and faculties (Rutherford 2001: 183), the social science component of heterodox theorisation did not advance any further analysis of money beyond superficial or descriptive studies of the consequences of money for modern societies, the social meanings of money, and Marxist problems with finance capital. The mistaken consensus among social scientists was that money is an economic phenomenon, and thus most scholars either accepted, uncritically, the prevailing orthodox analysis, or absolved themselves of all academic responsibility (Ingham 2004: 9-10). However, the failures of both banks and governments to predict or respond to the 2007 financial crisis effectively thrust issues of financial, monetary and economic governance firmly into the public and political conversations of many nations, and this spotlight has extended to the theorisation and scholarly study backing contemporary state policies. In this spirit, the first chapter of this research study will explore money as an institution by critiquing the now dominant orthodox narrative from an anarchist perspective, and exploring alternative, and sometimes marginalised, theories of money as credit. Thereafter, the chapter will move on to explore alternative theories of value, before investigating the prominent theories of banking to illuminate the institutional source of power not in capital or money under the control of agents or interest groups, but rather to expose the production process of money as the inherent source of that power.

Having dealt with the paradigmatic and theoretical aspects of money, the second chapter will look to an ideology that could accommodate an "alternative" or paradigmatic "third way" for analysing money. In the same way as paradigms are essential to the progress of scientific inquiry and the advancement of scholarly research, ideologies are essential to paradigms. Ideologies express value judgments about what is acceptable and not acceptable, and are the source point from which alternate schools of thought emerge in the social sciences. They may be more essential than the paradigms they generate, but the important point is that any paradigm must necessarily be infused with an ideological standpoint (Hill & Myatt 2010: 42). Here, this dissertation will propose the mutualist tradition of French anarchist Pierre-Joseph Proudhon and the "*Freiwirtschaft"* or "free economy" school of his follower, Silvio Gesell, as being coherent with many of the alternative paradigms explored in the first chapter. This is not to say that all, or indeed any, of the philosophers and theorists were anarchists or followers of Proudhon (excepting Gesell), but this is rather an assertion of consistencies within both groups that make their ideas amenable to each other and unify their opinions of how money actually functions in an economy. Likewise, the second chapter will present the various forms of monetary reform inspired by Gesell and pre-empt a resurgence of some of his ideas in the 1990s and 2000s. Chapter Three will present a grouping of case studies that feature some of the most prominent forms of alternative or complementary currencies, and explore their aims, operationalisation in communities, and the benefits and limitations these systems present to users as alternatives to centrally controlled state money.

The final chapter will also introduce something of a distant ideological cousin to the monetary reform table. Despite cryptocurrencies often being associated with libertarianism, this Chapter will present a brief, early history of their emergence that places them more firmly within the anarchist tradition (Vingna & Casey 2015). Furthermore, the modern relevance of cryptocurrencies will be explored in relation to the complementary currencies inspired by Gesell, as cryptocurrency can address some of the inherent limitations of complementary currency systems, while also providing a far more democratically governed template for the future of international money or the governance of a global reserve currency that is far more equitable to all states operating under this regime.

1. Chapter 1: Money; its origins, theories and regulation

> "This planet has – or rather had – a problem, which was this: most of the people living on it were unhappy for pretty much of the time. Many solutions were suggested for this problem, but most of these were largely concerned with the movement of small green pieces of paper, which was odd because on the whole it wasn't the small green pieces of paper that were unhappy." – Douglas Adams

> "…If you look at mainstream economics there are three things you will not find in a mainstream economic model – banks, debt and money. How anyone can think they can analyse capital while leaving out banks, debt and money is a bit like an ornithologist trying to work out how a bird flies whilst ignoring that the bird has wings…" – Prof. Steve Keen

1.1 Introduction

The introductory chapter initiated the idea that money, its origins, and the interpretation of its functions lie at the heart of methodological academic arguments between heterodoxy and orthodoxy. The issue of contention is whether or not the prior existence of an abstract measure (or unit of account) is required to institute a uniform value standard for the medium of exchange (Ingham 2004: 6-7). The problem, as mentioned in the introduction, is that neither side of the academic divide has sufficiently dealt with the three major questions that could resolve this argument; how did money come into existence and what caused its occurrence? How is value determined – by labour, utility or some other form of pre-existent property to an exchange? And, how is money actually created and circulated into an economy?

This chapter, then, will explore alternatives to the prevailing logic of the origins, governance and nature of money, and in so doing, will point out some illogicalities in the dominant narrative that emerged from the methodological debates at the turn of the twentieth century. To begin, therefore, it will consider Adam Smith's "founding myth" of economics (Graeber 2014: 24-28) and contrast this against the historical, sociological and anthropological realities of economic behaviour to introduce and investigate alternative theories on money. Thereafter,

the chapter will explore Simmel's relational view and conception of money as abstract value to introduce how value is constituted. Here, 'value' represents the contractual-institutional arrangements like deferral, revision, cancellation or reactivation of decision, all made possible by moneys function as a unit of account (or measure of value) (Ingham 2004: 4). Here, Orléan (2014) and Simmel will provide illuminating answers to the question of value by proposing agent interaction, or deliberative conscious association in human agents, or 'sociation', as being responsible for generating value.

Finally, the chapter will consider monetary regulation and creation, in particular, as it demystifies this process in order to locate the source of institutional power in the monetary creation process. The three major theories of monetary creation will briefly be considered and then empirically assessed to locate the source of power or the actual place of the monetary production process.

1.2 The myth of barter

In modernity, the system wherein every monetary unit is backed by a sovereign, or by a definite weight in gold corresponding to a unit of money, it has become nearly impossible to consider that a unit of money could ever have existed that was not backed by a metallic value with a known ratio for exchange or by a sovereign promise under centralised control. Indeed, asserting the opposite would seem utterly ridiculous. However, on closer inspection, a case could be made that there is no evidence supporting the assertion that a metallic value standard corresponding to any commercial monetary denomination, or unit (money) of account, ever existed. There is similarly overwhelming evidence in support of the notion that there never was a monetary unit dependent on the weight of a metal or the value of a coin, nor any fixed relationship between any precious metal and any unit of money until quite recently. It is even possible to assert that there never was any metallic value standard at all, ever (Mitchell Innes 1913: 379).

In fact, a far stronger case could be argued for debt as being the source point of modern money, rather than coinage, a view largely accepted in modern scholarship: that debt and credit arrangements preceded coinage by thousands of years (Mitchell Innes 1913: 391; Homer & Sylla 2005: 19; Van De Mieroop 2005: 17; Ferguson 2009: 28; Ryan-Collins,

Greenham, Werner & Jackson 2012: 34; Duyrat 2016: 363). Similarly, from the earliest historical records, scholars observe the presence of laws of debt, much like the earliest known examples, codified by Hammurabi in Babylonia some two thousand years BCE (Mitchell Innes 1913: 391). In this way, the sacrosanctity of obligations are imbedded in some of the earliest formal institutions known to contemporary scholarship, and likewise, obligation is imbedded in the foundational structures of all societies, in every temporal period, and in all stages of development (Mitchell Innes 1913: 391). Moreover, there is little practical difference between an obligation among neighbours or familiars in a community and incentivised behaviour, or the sense that an individual ought to comply with a specific form of conduct, acting in a specifically appropriate way, as violation of both conditions requires quantification in order to establish the penalty for non-compliance. Equally, the difference between the notions that one individual owes another something and owes a debt, properly speaking, also requires quantification and for the same reasons, these circumstances all require money. A debt can be accurately calculated and this invariably involves monetary valuation, and thus the appearance of money and debt are intrinsically linked (Graeber 2014: 21).

Nevertheless, scholars operating within the ideologically liberal paradigms of theorisation tend to recount the same unreasonable argument for the origins of money; and in that account, debt is something of an afterthought. In the standard textbook presentation, barter comes first, then money, and subsequently debt (Colander 1993: 706; Case, Frair, Gärtner & Heather 1996: 564; Black, Hartzenburg & Standish 2001: 246; Sobel, Gwartney, Stroup & Macpherson 2009: 263; Tucker: 2011: 647; McEachern 2012: 558-559). Some of this is attributable to the nature of the remaining evidence, as coins preserve well in the archaeological record, whereas written credit arrangements usually do not (Graeber 2014: 22).

A logical deduction then assumes that money is, therefore, not really important, and just a really useful "operating system" (Barnes 2006: 8) of the market economy which uses this medium, although it could just as easily use something else. Such an economy's logical antitheses would then be a barter economy, where goods and services are traded directly, without money. However, a barter economy would require the double coincidence of wants; that is, for trade to occur, both parties to a transaction would have to possess something that the other party needs or desires. Similarly, within an unsophisticated economy with a limited

range of tradeable goods, it is considered easy to find a trading partner, and barter is thus logically used (Case, Frair, Gärtner & Heather 1996: 564). That final assumption is actually highly questionable, but is phrased so vaguely that disproving it would be very difficult. Regardless, the typical hypothesis presses on, noting that complex economies consist of greater amounts of goods, complicating the double coincidence of wants, and thus, of barter. An agreed-upon means of exchange (or payment) conveniently purges this problem (Graeber 2014: 22).

This is never presented as a factual or historical occurrence, but rather as an imaginary thought exercise. And pretty much every contemporary textbook presents the problem the same way (Colander 1993: 706; Case, Frair, Gärtner & Heather 1996: 564; Black, Hartzenburg & Standish 2001: 246; Sobel, Gwartney, Stroup & Macpherson 2009: 263; Tucker 2011: 647; McEachern 2012: 558-559). The story goes something like this: historically, there must have been a time without money, and it must have been much like the economy of today, only *sans* money. This would have been most inconvenient, and hence, money must have been invented for the sake of efficiency. This way, modern economists begin their account for the origins of money in the fantasy world of barter. Moreover, students are repeatedly told to "imagine" or "think" in the same limited way: "Imagine a world in which there is no money" (Black, Hartzenburg & Standish 2001: 246); "Imagine for a moment that dollars and coins are worthless. Farmer Brown needs shoes …." (Tucker 2011: 647); "Think what it would be like to live in a barter economy - one without money…. If you wanted to buy a pair of jeans … you would first have to find someone willing to trade …." (Sobel, Gwartney, Stroup & Macpherson 2009: 263); and "… imagine what an economy would be like without money … you'd have to barter …." (Colander 1993: 706).

This perception seems to imply that in order to understand what money is, students must "…imagine a world without it." (Baumole & Binder 1979: 198). Furthermore, the location of this mystical place is neither fixed in time nor space. For example, Stiglitz and Driffill (2000: 521) locate their land of barter in what could be New England or the US Midwest, and like the others, this make-believe land is much like the present day, only devoid of money. There is a good reason why economists recount the same imaginary land of barter, because for them, it is the most important story ever told, and in doing so at the University of Glasgow in 1776, Professor of Moral Philosophy, Adam Smith, effectively brought into being the discipline of economics (Graeber 2014: 24).

Smith was not the first person to tell this story, either. As far back as 330BC, Aristotle was contemplating along loosely similar strands of thought. Aristotle figured that at some point, families must have self-produced all they required for survival, and gradually, as some began to specialise their production, they swapped their goods, from which process, money emerged. He was, however, never clear as to how this process might have occurred. But Smith was resolute in his desire to overturn the established wisdom of the day; that all societies had governments, and all governments issued and controlled the monetary supply. Smith objected to the idea that money could be the creation of the state, and in this way, he was the intellectual heir to liberal philosophers like John Locke, who considered governments' primary role to be the strict protection of private property, believing they operated best when limiting themselves to that function. So, Smith expanded on Locke, contending that money, property and markets logically preceded political institutions and were the foundations of human society. Rationally, it thus followed that a state's role in monetary affairs should be reduced to guaranteeing the soundness of its currency. It was in making this argument that Smith could also insist that economics was its own area of human study, with its own principles and laws, or a field of human inquiry as distinct from politics, ethics or law (Graeber 2014: 24-25).

To Smith, the basis of economic life is found in human nature's propensity to "… truck, barter, and exchange one thing for another" (Smith 2000 [1776]: 14). He pointed out that no one had ever seen dogs make deliberative and fair exchanges of one bone for another, while humans, if left to their own devices, inevitably compare and swap things. Even conversation and logic are merely forms of trading, where humans compulsively attempt to seek their own advantage, or extract the maximum amount of profit possible from an exchange (Smith 2000 [1776]: 15). This impulse to exchange, in turn, generates the division of labour responsible all human civilisation and achievement (Smith 2000 [1776]: 15).

Smith's barter-land is seemingly an amalgamation of Central Asian pastoral nomads and native American Indians who accordingly act on their human impulse to "truck and barter" while maximising their profits, and begin to divide their labour. But as soon as this has happened, the reader is suddenly transported from an unsophisticated economy populated by "savages" who swap arrowheads for meat to a seemingly complex economy in a small town with shops and stores. Similarly, the double coincidence of wants becomes a problem, so

everyone begins to stockpile some form of commodity that they reckon everyone else will probably want. Paradoxically, rather than diminishing the value of that commodity (because everyone has it), it essentially becomes more valuable, effectually becoming currency (Graeber 2014: 25-26). Smith noted the historical variety of commodities used, such salt in Abyssinia, tobacco in Virginia, dried cod in Newfoundland, sugar in the West Indies, and even a village in his native Scotland, where workmen carried nails instead of money to the bakery or pub (Smith 2000 [1776]: 25). He similarly noted that long-distance trade was ideally suited to the precious metals being used as currency, as these were portable, durable, easily subdivided and, in some cases, fungible, but pointed out that the use of rude metals hindered trade in two ways; both weighing and particularly assaying were intricate operations and differences in either would result in disparities of value (Smith 2000 [1776]: 26-27).

As an heir to the liberal tradition, it is not difficult to see where Smith was taking his argument. Using precious metal is more efficient than barter, but standardising the units of metal with stamps that guarantee weight and purity would be even better. And hence, coinage was born. Granted, this involved the government or state, but this was the state's only role – the guarantee of the money supply – and historically, it is a role all states have tended to fulfil very badly (Graeber 2014: 27-28; Davies 2002).

The importance of this allegory is in the telling thereof, as in so doing not only contributed to the founding of the discipline of economics, but, significantly, the idea that there existed a thing called the "economy" which operated according to its own rules, exempt from moral, political or social life, that economists could study. This economy is where humans indulge their impulse to truck and barter, and they are happily still doing so. Additionally, economists like Carl Menger (1892) and William Stanley Jevons (1896 [1871]) improved on this parable by adding mathematical models to indicate that a random assortment of individuals could, theoretically, produce a single commodity for use as money and a uniform price system. It has since become the ubiquitous dogma of a victorious methodology – unquestionable and irrefutable, the bedrock of modern policy. The problem is that this founding myth is just that, pure fiction. There is no evidence pointing to this ever having occurred at all, anywhere, ever. Actually, there is overwhelming and irrefutable evidence to suggest that the very opposite happened (Humphrey & Hugh-Jones 1992).

It is not as though explorers and anthropologist did not try to locate such places, they just never found any. Smith located his story in aboriginal North America and Graeber (2014: 29) observes, in his defence, that there was hardly any reliable information available in Scottish libraries about Native American economic systems at the time. William Stanley Jevons has far less of an excuse. In 1871, Jevons penned "*Money and the Mechanism of Exchange*" (1896 [1871]), now considered a classic work on the subject. But his examples were taken straight from Adam Smith (Jevons 1896 [1871]: 4), with Indians swapping beaver hides for venison and elk, and he gave no descriptions of what actual Indian economic life was like. Jevons seems to have been ignorant of widely published works, such as that of Lewis Henry Morgan (1881: 64-65) whose description of the economic institutions of the Six Nations of the Iroquois, published nearly twenty years earlier, made it abundantly clear that longhouses where stockpiled goods were allocated by councils of women served that function, and no one had ever traded slabs of meat for arrowheads. Moreover, as missionaries, explorers, colonial bureaucrats and adventurers spread out the world over, they uncovered and documented an almost endless assortment of economic systems, but none where the normal mode of transaction took the form of "I will swap you five turkeys for that pig." (Graeber 2014: 29), a perspective shared by the contemporary anthropological literature on barter (Humphrey & Hugh-Jones 1992; Humphrey 1985; Anderlini & Sabourian 1992). Indeed, Cambridge University anthropologist Caroline Humphrey resoundingly concludes that "No example of a barter economy … has ever been described, let alone the emergence from it money; all available ethnography suggests that there never has been such a thing" (1985: 48).

This is not to imply that barter does not exist, or that it was never practised by the so-called 'primitive' societies that Adam Smith imagined. It just never occurred between fellow villagers or communities, but rather between strangers or enemies. In this sense, barter can be thought of as agreements made by groups or individuals independently and sporadically. These people would, in all probability, not meet again nor have any reason to enter into ongoing or contractual-like relations, and such arrangements were generally undertaken without any standard of value. It is a direct, one-on-one exchange where each party makes their trade and leaves (Humphrey 1985: 51). Graeber (2014: 29-32) illustrates this with examples of the Nambikwara peoples of Brazil, and the Gunwinggu people of Western Arnhem Land in Australia, famous for their ceremonial ritual of barter called the *dzamalang*. In both cases, trade is facilitated by laying down a mantle of sociability, dance, music, food or shared pleasures that forms a basis for conviviality that underlies the trading relations,

followed by actual trade which is characterised by both parties demonstrating or displaying the latent hostility that naturally occurs when strangers exchange material goods, or put differently, in situations where neither party has any reason for not taking advantage of the other. In the Nambikwara case, this social mantle of civility is extremely thin and could escalate into real hostility easily, whereas the *dzamalang* practised by the Gunwinggu manages to merge shared pleasures and aggression via a relaxed social attitude toward sex, resulting in a lesser potential for conflict. Graeber (2014: 32) notes that these examples are illustrative of just how limited economists' imaginations can be – those very same economists who perpetually tell their students to "imagine" or "think" about barter economies and societies without money.

As mentioned, this imperative to "imagine" arises because for "economics", the discipline that concerns itself primarily with the ways in which individuals self-maximise exchange arrangements to exist, it has to presume a separation between the spheres of human behaviour that simply does not exist for people such as the Nambikwara and Gunwinggu, nor did it ever for the first societies in ancient Mesopotamia where money first emerged. More importantly, from the viewpoint of the liberal ideology which conceived these separate spheres of human activity, these divisions are facilitated by the existence of specific institutional arrangements which are accepted or taken as givens. Laws, enforced by police, courts, prisons and governments, prevent self-maximising individuals who are uninterested in entering into long-term trade or contractual relations from practising the most obvious expedient and "getting their hands on as much of the others' possessions as possible" (Graeber 2014: 33). This, in turn, allows for the neat separation of human spheres of existence from the marketplace – where people do their shopping. Essentially, the picture of the world painted by economics textbooks, informed by Adam Smith's fable, has become such an integral part of human activity that it has assumed a commonsensical status, and it is hard for anyone to imagine anything other than that form of existence, despite a complete absence of historical evidence in support of the idea (Mitchell-Innes 1913: 377-378).

However, on consideration of Graeber's examples (2014: 29-32), it becomes apparent why no societies based on barter emerged, as such places would be in a permanent state of fight-or-flight, with everyone perpetually verging on conflict, permanently poised for engagement, but never striking. Moreover, the words to "truck and barter" were, in the years prior to Smith's time, synonymous with "to trick, bamboozle, or rip off" (Graeber 2014: 34) in

English, French, Spanish, Portuguese, Dutch and German. Getting the best deal out of a transaction where one good is directly swapped for another is how people deal with those whom they care nothing for, nor expect to ever see again. Why not take advantage? If, however, one is familiar with the other party to an exchange, a friend, neighbour or village acquaintance, being someone that person cares enough about to be considerate of their individual situation and needs, and deal with on a fair, regular basis, the exchange is more likely to be framed differently, perhaps as a gift or loan. Graeber (2014: 34-36) illustrates such scenarios, noting that once the relationship between the two parties to a transaction is familiar or communal, the double coincidence of wants vanishes. Relatedly, the necessity to stockpile commonly accepted items or commodities disappears too, and so does the need to develop currency. In fact, what does happen, as with so many actual small communities worldwide, is that everyone in the community keeps record of what is owed to whom and by whom. The only conceptual problem here is, owed what, exactly?

The question here becomes, on what basis does one proximate the rough equivalent between X and Y, when X is a bag of potatoes and Y a pig? Moreover, surely it implies the existence of money, or at least a unit of account to compare the values of different objects? Most gift economies establish a series of ranked categories or relative equivalence that can be given for another, for example, turkeys and pigs may be categorised as the same type of thing or rough equivalents, but jewellery or rare, precious stones form another category entirely. Anthropologists refer to this as creating alternate "spheres of exchange" (Gregory 1982: 48-49) and these do simplify the exchange process. Moreover, cross-cultural barter also functions according to similar principles, with only certain items exchangeable for specific others, facilitating easy calculation of local equivalences (Graeber 2014: 36-37). This notion, however, only complicates the search for the origin of money, as why would one stockpile cod or salt if these can only be exchanged for certain things, and not other items?

Similarly, this situation is indicative of another ill-considered feature of barter, that it is not ancient at all but rather a contemporary development. Most known cases are modern. These occur between groups familiar with using money but, for whatever reason, do not have any around (Humphrey 1985: 49). Modern examples of such elaborate barter systems can be found in the currency crises of Russia in the mid-1990s and Argentina in the early 2000s. Sometimes, currencies develop from these, as in Argentina (Fioramonti 2013: 119) or as in prisoner of war camps and prisons where, to the delight of economists, inmates have been

known to use cigarettes as currency (Radford 1945; Williams & Fish 1974). In both of these cases, people who are familiar with and grew up using money, now have to make do without it.

Remarkably, even Smith's own examples of salt, nails, fish and tobacco being utilised as money are indicative of the same situation. In the years after publication of "*The Wealth of Nations*" (2000 [1776]), scholars looked into Smith's examples and discovered that in all of the cases, the people involved had been accustomed to the use of money and were actually using it, but were doing so as a unit of account. The dried cod that functioned as money in Newfoundland was, in fact, as noted by British diplomat Alfred Mitchell-Innes (1913: 378), really just a simple credit arrangement. In the early days of industrialised fishing, Newfoundland had no settled, permanent European population. Fishermen travelled there to work seasonally, and those who did not fish were traders who bought the dried cod from fishermen and sold fishermen their supplies. Cod was sold to the traders at the market price in pence, shillings and pounds, which earned the fishermen a credit in the merchant's books. This credit was in turn used to pay for the fishermen's supplies, with the balance accounted for by drafts on England or France. Furthermore, Mitchell-Innes pointed out that such a staple commodity could not function as money, because according to the hypothesis, the medium of exchange must be receivable equally among all members of the community, and since fishermen paid for supplies in cod, it would follow that traders would have to pay for their cod with cod, an obvious improbability (Mitchell-Innes 1913: 378).

The same situation applied to Smith's Scottish village. In his time, employers regularly had insufficient quantities of coin to pay their workers, which was a state that could endure for yearly periods at a time. It was perfectly tolerable for workers to take with them some of the produce or excess work materials like fabric, lumbar, cord and such (Mitchell-Innes 1913: 378). Nails were a form of *de facto* interest on the workers' outstanding wages, a bag of which was often brought into the pub and charged off against bar tabs. These examples clearly indicate outcomes where people were making use of improvised credit systems because real money, or the gold and silver coins they were familiar with, were in short supply.

1.2.1 The plausible origins of money

Any origin of money, then, is most insufficient if it only begins with a history of coinage, starting in ancient Lydia and Ionia (Davies 2002: 61), or is similarly ignorant of early monetary systems in China where base metals were used as currency. Chinese coinage took the form of both cast cowries and, as in the Scottish example spades, hoes, knives and other metallic items generated from the casting process. However, this presented a limitation as their value density was low and thus, trade required very large numbers of these coins. The state played an important role in regulation and uniformity of standards but this concentration on exclusive use of base metals meant that despite being the first to mint what could be called coins, the Chinese did not exploit the technology as rapidly as the western world, whose superior levels of technical production and use of precious metals were far better suited to most monetary functions (Davies 2002: 55-57).

The first literate human culture in world history emerged from the southernmost point of present day Iraq (Van De Mieroop 2005: 17). After an evolution which may have commenced farther afield and begun as early as the ninth millennium BCE, first developing agriculture, irrigation and permanently inhabited settlements, cities emerged late in about the fourth millennium BCE. Politically, ancient Sumer ended up much like ancient Greece – gradually evolving into multiple independent city states. Sumer thus came to have dense concentrations of people who could administer, manage and produce in the highly fertile and ecologically diverse Southern Mesopotamia by specialising their labour, and so increase production to compensate for the emerging professional groups in the cities like craftsmen, manufacturers, merchants, lawyers, bankers and bureaucrats. Similarly, this arrangement generated the need for exchange, which developed two essential technologies for this purpose; writing and credit (Van De Mieroop 2005: 17). In this way, writing, from its earliest origins, was closely associated with, and the improvement in, the keeping of accounts (Davies 2002: 50). Archaeologists confirm this, noting that at first, it appears as a mere technological advancement in economic administration (Oates & Oates 1975: 11-12; Whitehouse 1977: 85; Dalley 1998: 9).

Sumerian economic life was governed by large temple and, later, palatial, complexes, often manned by sizeable workforces of priests, officials, and craftsmen who worked in the industrial workshops, as well as shepherds and farmers who cultivated the considerable land

estates. These were then large-scale centres of commerce and production, which provided a physical and secure place to store, distribute and produce goods and services, while additionally providing the staff and a system of organisation and distribution to the institutional community (Nemet-Nejat 1998: 19; Graeber 2014: 39). As well as being central to economic and administrative life, temples were also the centres of political and religious life, as these were not the secularised and compartmentalised concepts they are today (Van De Mieroop 2005: 18; Davies 2002: 50).

The Sumerians are responsible for a staggering number of early developmental innovations that endure to the present, besides being quite famous in history textbooks for inventing the wheel. The Sumerian civilization also presented humanity with structures and institutions such as cities (Postgate 1994: 733-79), banking (Oppenheim 1964: 85; Homer & Sylla 2005: 27), contracts, courts and lawyers (Whitehouse 1977: 93-96), the first professional standing armies (Postgate 1994: 242), the first bicameral congress (Postgate 1994: 80), formal education and medicine (Whitehouse 1977: 90) and many of measurement standards used in the modern world today like the sixty-minute hour, the twenty-four-hour day, the baker's dozen and the twelve-month year. The silver shekel was their basic monetary unit. The weight of a silver Shekel was established as the relation, or purchasing power, of the shekel to five basic foodstuffs: barley, dates, *kasû* (or mustard cuscuta, used in brewing date beer), watercress and sesame (measured in litres) as well as wool, which was measured in pounds (or *minas*). Rather than giving the price of an item in shekels, as one would today, these ancient markets would report how much one could purchase for one shekel (Van Der Speck, Van Leeuwen & Van Zanden 2016: 6). Similarly, a shekel was divisible into sixty *minas*. This corresponded to a portion of barley, on the basis that a month consisted of thirty days, and two daily rations of barley were paid to temple workers (Graeber 2014: 39).

Additionally, as this system was being used to calculate rents, fees, interest, loans and debts in silver, it was effectually being used as a unit of account and currency (Oppenheim 1964: 86; Postgate 1994: 202). Silver did actually circulate in unworked bars, as Adam Smith had speculated (indeed, this was his only correct assumption). It did not, however, circulate in significantly great amounts, with the majority sitting in palace and temple treasuries, and in some cases literally staying under guard in the same vault for thousands of years. It was certainly technically possible to standardise these silver hordes into ingots by stamping them and establishing a system with the authority to grantee the purity, but no one saw the need to

do so. This was because although debts may have been calculated in silver, they could be settled in denominations of pretty much anything. Most peasants who owed money to the temple or palace settled these debts in barley (another indication of why the rate of silver to barley was fixed), but palace and temple complexes were vast industrial facilities that could make use of almost any good, service or commodity, and so outstanding debts were settled in whatever medium the debtor could pay in. Silver was similarly used to calculate prices of commodities that were not controlled by temples and palaces, but even here, the available evidence suggests that most transactions were credit based. Merchants, who worked independently or for temples and palaces from time to time, were some of the few people who did transact in silver for regional or expeditionary trade (Graeber 2014: 39-40).

Sumerian writing and accounting gradually spread and came to be used by neighbouring tribes and regions. Likewise, Sumerian cuneiform evolved and developed into various standards which lasted more than three thousand years. Some documents in prosperous first-century AD cities, like Babylon and Nippur, continued to make use cuneiform, well after these regions became part of the Persian Empire (Davies 2002: 50). Similarly, during this time, or at least in the initial period covering the first half of the third millennium BCE, the palace usurped the temple as the public administrator and redistributor of goods and services for the institutional community (Van De Mieroop 2005: 18).

To summarize, the first urbanised civilization that contemporary scholars know about was, monetarily at least, a predominantly credit-based economy where money served a largely accounting function, as opposed to being physically exchanged. Likewise, this practice (extending credit) was not the sole privilege of the temple, and later, the palace. True, merchants probably used silver currency, but nonetheless, tradespeople entered into credit arrangements independently. These early contracts are evidenced in small clay tablets, recording an obligation to future payment, which were then sealed in clay envelopes, stamped with the borrower's seal. Creditors would then hold on to the contract as surety, and upon repayment of the loan, these envelopes or *bullae* would be broken open. In some cases, the *bullae* not only represented a promise to pay the original loan, but were also what would today be referred to as negotiable instruments, meaning the tablet inside was designated "to the bearer". Thus, a debt of ten shekels of silver circulated as the equivalent of a ten-shekel promissory note, or, as money. The frequency, velocity or sheer volume of such transactions is beyond contemporary knowledge, but such promissory notes tended to circulate in

merchants' guilds or wealthy neighbourhoods, where parties to a transaction would be familiar enough with one another to trust each other and be accountable, but not so familiar to the degree that each could rely on more traditional forms of mutual aid instead (Graeber 2014: 214-215).

Interest, too, appears in this era, but far less is known about the origins thereof; suffice it to say, scholars have been "imagining" along similarly limited conceptual frameworks. The majority of explanations for interest revolve around the word's meaning in ancient languages. Emanating from the word for "offspring", this gave rise to speculation that its emergence emanates from livestock and grazing fees, while alternatives consider its emergence from the palace system of administration. At least for the Babylonian civilization, Van De Mieroop (2005: 24) considers that the former was the case. The Sumerian word for interest was "*máš*", a word also used to refer to a lamb. He notes that in the ancient and modern Iraqi agricultural systems, tenants could, and still do, rent land to graze their cattle on and, as this herd of animals expanded, in part because of the landlord's investment in the grazing land, these increases were taxed and settled in the form of a small number of lambs. He points to the high levels of stability in interest rates, twenty percent for silver loans and thirty-three and a third percent for barley, as evidence that such interest was not determined by market forces, or supply and demand, but rather was decreed by law (Van De Mieroop 2005: 24-25).

A more likely origin of interest is actually explained by the nature of commercial transactions. This is an important point. While most scholars agree that the practice of charging interest preceded writing and coined money by a considerable amount of time, Graeber (2014: 65) believes that merchants and commercial agents sought and received loans at fixed interest rates in order to conduct business and trade with nearby mountain kingdoms, or to go on trading expeditions. Southern Mesopotamia may have been fertile, but it lacked certain commodities (such as wood, stone and metals) and this required foreign trade. The reasons are significant here, as an interest charge implies a lack of trust between the two parties to an exchange. It would be simpler for the temple or palace bureaucrat to just arrange a profit share, as such arrangements became common practice among later Middle Eastern agents. Moreover, such an arrangement was far more equitable. The reason this did not happen appears to be that such profit sharing ventures were usually conducted between equals, traders or any people from a similar background with familiarity and the ability to keep track of each other. So, for example, an adventurous global merchant who travelled

across Asia to trade probably had little in common with a Sumerian administrator or priest, with the bureaucrat being likely to conclude that one could not necessarily believe in the integrity of accounting from a world-roaming adventurer about his travels. Moreover, such an investment presented a risk to the temple: what if something did go wrong and the expedition lost? A fixed rate of interest would render any disingenuous motives or unforeseen calamity a risk to the merchant, and not a potential liability to the temple, while its return was then assured in advance at a fixed rate (Graeber 2014: 215).

1.2.2 Theoretical questions emerging from an alternative origin of money

Dodd (2014: 94-95) observes that the fundamental distinction in Graeber (2014) is the discrepancy between the old communal forms of credit and commercial modes of credit. As a foundation for most of the obligations that social life involves, debt is thus a fundamental feature of human relations. Therefore, it is critical for comprehending the relationship between money and debt to understand how such old forms of credit or moral obligations became interest-bearing debts. Thus, Graeber's (2014) analysis is of an initial breakdown in the economy of credit in around 2700 BCE, or about the same time that the temple lost control of administration to the palace. The origins of lending at interest may, as indicated, have begun with the lending out, at interest, of the surplus produce, silver or goods housed at temples, and later palaces, by administrators and bureaucrats to private, travelling merchants for trade purposes. This practice spread, and gradually private loans became more pervasive (Van De Mieroop 2005: 20). Similarly, as loan contracts grew in use, a debtor's property increasingly began serving as collateral against the debt. Likewise, if debtors fell on hard times and were unable to pay off their debts and interest with their property, they or their families would go into debt-bondage, or slavery. This debt peonage usually forced defaulting debtors (or family members) into the perpetual service of their creditors' households (Graeber 2014: 65). However, the key transition facilitated here is the shift from not only treating war captives as slaves, but also treating anyone or any debtors as potential slaves. All classes of people were now reducible to a figure (Dodd: 2014: 94-95).

Ancient rulers were mindful of the potential consequences that large amounts of unpayable debt could have on their order. If, for example, a poor harvest forced large amounts of the population into debt servitude, many debtors could defect to the hinterlands, live among the

nomadic pastoralists, and ultimately revolt, destroying the debt record, reallocating the land and repeating a cycle that, Graeber (2014: 217) is keen to point out, carried itself out regularly for around three thousand years prior. At the same time, the idea of debt forgiveness or jubilee seems to have originated in Mesopotamia too, though it was a common practice throughout the ancient world. The pardon was framed in terms of justice, citing the idea that, as Hammurabi put it in 1761 BCE, "the strong might not oppress the weak" (Graeber 2014: 217; Dodd: 2014: 94-95).

The Mediterranean civilisations used something of a different system. The same pressures of credit expansion, debt peonage and unpaid debts characterised both Greek and Roman civilisations early on, but in both cases, coinage emerged as a solution to the problem (Graeber 2014: 168–186, 228). Greek and Roman societies had limitations placed on debt peonage; instead, purportedly "free" peasants and their children were conscripted into armies and used as soldiers to conquer neighbouring lands. War captives could then be used as slaves in mines, which provided the coin required to pay standing armies. Here, Graeber (2014: 229) refers to Ingham's (2004: 99) military–coinage complex by adding slavery into the equation, and it is this military–coinage-slavery complex (Graeber 2014:229) which facilitated the next phase of transformation of debt, from a human relationship to a financial one, and this required the intervention of the palace or early state.

As rulers paid their soldiers in coins mined by war captives, these would be employed in the local economy where most local traders and manufacturers would not extend the traditional forms of credit to these strangers, who would have been perceived a greater credit risk than even prevailing interest rates could guarantee against. In this way, markets evolved as something of a by-product of the early state. Contrary to the liberal assertion that markets arise spontaneously, they can, in this conception, be seen as a side effect of rulers' efforts to turn the vast resources of a state's economy into a supporting mechanism for their enormous standing armies. And the historical record supports this notion (Davies 2002: 109). Competitive markets probably did emerge with individuals competing to produce and sell goods and services to ancient military forces (Dodd 2014: 95). A cursory look at the Sassanian "*circle of sovereignty*", Kautilya's "*Arthasasatra*" or Chinese "*Discourses on Salt and Iron*" (Graeber 2014: 49) indicates that most ancient rulers allotted a considerable amount of mental effort to resolving issues of the relationship between food, taxes, mines and soldiers, with most concluding that the creation of markets was very useful in supplying and

feeding armies, but also in other ways, as rulers no longer needed to produce everything required to arm and supply a standing force on royal estates and in palaces, nor did they need to requisition any other supplies from the population, who they could also now tax (Davies 2002: 109; Graeber 2014: 49). In fact, Graeber (2014: 49-50) is keen to point out that taxation is actually the mechanism used to bring markets into being, a point that follows logically if money and markets do not occur spontaneously (Dodd 2014: 95).

Graeber's analysis of debt raises four important theoretical issues for this study. The first concerns the relationship between violence and money (Dodd 2014: 96–97). The role of violence in monetary and economic affairs is imbedded in human economic common sense. The economic institutions presupposed are unable to exist outside of the monopoly on systemic violence or threat thereof that is perpetuated by the contemporary state. This is not the same as state theories of money, as violence here does not explain the origins of money, but rather, violence does explain the development of specific forms of money. True, there exists a fundamental connection between money and violence, but it does not begin with debt, rather with coinage. Graeber (2014) presents a monetary history that is characterised by long cycles, oscillating between periods where the dominant form of money was credit money, and others where money consisted of coinage. Systems of credit tend to reign in periods characterised by relative social peace. Contrastingly, periods where coinage is the dominant monetary form are characterised by large-scale conflict and war. This is because bullion is easier to steal or commandeer (Dodd: 2014: 96-97). Moreover, coins are the best medium with which to pay armies, as metal does not require a level of trust the same way that a debt does; "A debt is, by definition, a record, as well as a relation of trust" (Graeber 2014: 213). But bullion is liquid, unmarked and simple for paying soldiers who are, after all, a poor credit risk. Similarly, it simplifies transactions in times when the threat of violence is ubiquitous, while credit networks require nurture, trust and a certain degree of peace to function well (Dodd: 2014: 96-97).

The second theoretical issue revolves around the differences between the human and commercial economies, as well as money's specific relationship to both (Dodd: 2014: 96-97). In the human economy, money functions as a social lubricant. Its uses are employed in a variety of modalities to, for example, arrange marriages, quell feuds, earn retribution for crimes, console mourners at funerals, establish the paternity of children, negotiate treaties and establish networks of patronage and support; such currencies are not used to buy or sell

things (Graeber 2014: 130). Human economies celebrate individuality and the uniqueness of both the individual and also their place within a continuum or nexus of relations with others (Graeber 2014: 158). Commercial economies, on the other hand, emerged once it became possible to treat human beings as equivalent values that are capable of being traded or exchanged; in other words, humans became fungible. Graeber (2014: 171) illustrates this, pointing out that in medieval Ireland the "honour price", or price one would have to pay for insulting someone's dignity, was measured in *cumal* (or slave-girls) as a unit of account. Honour here meant more than just the modern conception of dignity, but something that was to be defended with violence, if necessary. Similarly, he (Graeber 2014: 171) notes that some of money's earliest forms were "… measures of honour and degradation …" (Dodd: 2014: 96-97).

The moral crisis only arrived when money began to be used to purchase other things, because this introduced the idea that there was an equivalence between commercial purchasable goods and human life and honour. In a sense, money evolved from a "… measure of honour to a measure of everything honour was not" (Graeber 2014: 188). So, to imply that an individual's honour could be purchased or quantified monetarily became something of an appalling insult (Dodd 2014: 97). The move toward a commercial economy was thus premised on the idea that human beings could be traded and measured, and this requires violence. Quantitative equivalence of this sort depends on violence because that is the only means by which to rip people out of their context to the point that they can be treated as something else (Graeber 2014: 386). Slavers remove people from their social webs of mutual commitment, enabling them to be subjected to debt (Graeber 2014: 163). It is the most extreme form and logical result of human de-contextualisation and thus, unlike the human economy, the commercial economy is based on a "logic of slavery" (Graeber 2014: 211; Dodd 2014 97-98). Relatedly, Graeber (2014: 198-207) is keen to invoke Orlando Patterson's (1982: 31) argument that the modern conception of private property, as derived from Roman law, is a direct result of institutionalised slavery and people having dominium over their "possessions", but these objects were in the musings of Roman jurists, not inanimate but human beings.

The third theoretical issue is the relationship between financial or monetary and the so-called "real" dimensions of an economy. In modernity, it is somewhat customary to think of the financial and monetary side of an economy as being somewhat peripheral to the real business

of economies, that is, the industrial production of things in factories by businesses. However, the development of capitalism had less to do with the need to produce and manufacture things than a need to maintain the massive financial apparatus of credit and debt that had evolved since the middle ages, often in conjunction with military, not commercial, activities. Moreover, it was the state that was responsible for legalising interest. Up until such times, outlawing usury had functioned as protection for debtors from (illegal) creditors who had no legal recourse to pursue defaulters. But legalising usury had the paradoxical effect of criminalising debt. By the eighteenth century, the increasing amounts of families being brought under debt litigation had also seen credit become perceived as morally tainted and associated with criminality, while cash came to be regarded intrinsically moral (Graeber 2014: 332). Similarly, given that debts increased burden and criminalisation, it can also be seen as a system constructed on forcing people into work. To Graeber (2014: 350), this is the "great scandal" of capitalism: that it has never been organised around "free labour", and believing so, as he observes, would equate to treating the millions who have suffered under capitalism in Africa, Asia and the Americas as slaves, contract labourers, serfs or debt peons – mere potholes along the road or stages of industrialisation that all states must undergo (Dodd 2014: 98-99).

The final question concerns the relationship between debt and money. Even if it is plausible that all forms of money are some or other form of debt, both Graeber's (2014) and Ingham's (2004) positions make it clear that at the same time, not all forms of debt are money. The key factor underpinning the alteration and legitimation of specific forms of debt into money is the introduction of state violence. At the same time, Graeber correctly complicates matter by further distinguishing credit money from bullion money, and associating the latter with state violence. This is possibly the greatest contrast between the anarchist perspective and the classical Marxist position: that in focusing on debt, as Graeber does, as opposed to analytics of capitalism or feudalism, the crucial importance of war, violence and slavery in moulding the fundamental elements of what is now considered the modern state economy, and in particular the institution of money, is highlighted (Dodd 2014: 100).

1.2.3 Alternative theories of money

For economists, such questions are rarely considered, because Smith's myth of barter is central to the whole discourse of economics, and so too, for the theories which dominate

money. In penning "*The Wealth of Nations*" (2000 [1776]), he was deliberately attempting to establish the science of "economics", complete with its own area or domain of study, called the "economy", which operates according to its own laws, much like those recently identified by Sir Isaac Newton identifying the rules governing the physical world. This was a very novel concept at the time. And though scholars continued to debate as to whether unfettered free markets could generate the general welfare via an invisible hand regulating self-interested individuals, trucking and bartering away, no one stopped to consider whether the market actually spontaneously exists in the first place.

The underlying assumptions about the myth came to be seen as so logical, it is simply assumed that when objects trade hands, it is due to the fact that both parties to the transaction have determined that a material advantage would be extracted from that trade. A corollary of this, though, is that economists have come to consider questions of the presence or absence of money as irrelevant or unimportant. Money is a commodity, like any other, used to measure the value of other commodities. Graeber (2014: 44) considers this the "apotheosis of economics as common sense": since money is irrelevant, real economies are just enormous systems of barter. Problematically though, as the historical record indicates, without money such massive barter systems do not happen. Even when vast economies "revert to barter" (Graeber 2014: 45), as Europe is contended to have done after the fall of the Roman Empire (Davies 2002: 112), these societies did not abandon the use of money, just cash. In the Middle Ages, for example, values were still assessed in old Roman currency, despite the demise of circulating coins hundreds of years prior (Graeber 2014: 45). Money encourages humans to conceive of themselves as economists insist they do, that is, as collections of individuals and groups of individuals or nations whose main business is the trading of things. But similarly, money is not sufficient, in itself, to facilitate this world view. Were it enough to do this, the discipline of economics probably would have emerged from ancient Sumer, and not Scotland in 1776.

In fact, the very element Smith was attempting to oppose, the function of governmental policy, is the missing element. In his day, the world could be conceived of in this way, with markets of butchers, bakers, haberdashers and ironmongers as a completely distinct and autonomous domain of human agency, because markets were being actively fostered by the government. This needed the traditional institutions of government and statehood, like militaries, police, laws, courts, prisons and such, but it similarly needed the use of specific

monetary policies, like the liberal ones Smith was successfully advancing. Fostering markets in this way required pegging the value of currency to silver, while expanding the supply of money, and especially increasing the amounts of small change circulating. Not only did this require large amounts of metal, but thorough regulation of the banks that were the only source of paper money. In the preceding century, Sweden and then France had seen attempts to create a state-supported central bank fail spectacularly, with both banks collapsing under uncertainty over the speculative-based note issuances. Smith, like Locke before him, thought that the Bank of Scotland and the Bank of England endured relative success by comparison because of their policy of pegging their paper money values to precious metal standards. He did support the use of paper money, but this belief became the mainstream economic narrative to the extent that any other theories, like alternative theories of money as credit or debt, were largely side-lined and marginalised, and in some cases, rather ill-considered (Graeber 2014: 45).

Another implication of the inconsistencies in the traditional myth-inspired version of monetary history is that money can be better understood as an institution. Institutions are considered to be structures for organised human activity, built around systems of incentives and rewards. These structures are composed of informal norms and formal rules that define the interactions within the institutional orders (North 1998: 4; North 2005: 48). These are then naturally evolving or deliberately created edifices for human interaction that both define and limit the choices available to decision makers and individual agency within the orders.

Nobel Prize winning economist Douglas North (1998; 2005) illuminated this idea when he compared institutions to a game of sports (2005: 48) and observed that the way the game is played is largely dependent on the formal rules which demarcate the incentive structure to the players, as well as the strength of the of the underlying informal rules. Of similar importance to the failure or success of any institution is the effectiveness of compliance, or how well the rules are enforced. This raises the issue of regulation, which introduces organisations to the institutional environment. Organisations and the costs that ascend from institutional frameworks are held to emerge or be generated from institutional structures, and are defined as groups of individuals bound by a common objective (North 2005: 59). These regulatory structures both incentivise and enforce compliance, as regulation and punishment of actors who violate the rules of the game is key to well-functioning institutions (North 1998: 4). Similarly, the opportunities afforded via this incentive-rules matrix has great influence on the

nature of the organisations which emerge to play the game (North 2005: 59). In this way, institutions evolve slowly in a path-dependent manner, reliant on the interactions between the underlying social norms, or informal rules, and the enforcement mechanisms and formal rules which emerge to incentivise and regulate behaviour. This institutional framework functions as a 'structurer' that stipulates how political choices develop and accumulate over time, and as a normative social structure, which defines the informal incentives. Thus, institutional structures are accumulations of the beliefs of a society or group, over time. Processes of change to this edifice occur only in slow, small increments and are in a way representative of constraints on the present imposed by the past (North 2005: 49).

Like the third way or alternatives to the prevailing paradigms and ideologies this research dissertation will explore, the institutional literature revises ideas about human agents, to theoretically model a middle ground between rule following and rationality. Much of this has drawn from experimental economics, which had trouble replicating specific institutional structurers in a laboratory setting when attempting to simulate markets, thus challenging the traditional conception of a market as a universal form of human interaction (Hodgson 2007: 10). Likewise, experimental economists have observed a rather context-dependent conception of reality. Vernon Smith's meticulous experimental observations (Smith 1991: 881, 894) led him to deduce that institutions are of critical importance, acting as mechanisms that both induce and reinforce individual rationality. Here, cognition alone does not account for the emergence of human rationality, but rather is an ongoing process of social interaction with other agents. Likewise, the idea that individuals encounter problems equipped with a reasonable and established set of preferences that structure and compute all decisions has largely been disproven by modern game theorists and experimental economists, who again infer the importance of institutional influences on the concept of rationality (Loomes 1998: 486; Hodgson 2007: 10). Much of this theorisation is consistent with the founding father of institutional scholarship, Thorstein Veblen's critique of the rational actor as a "lightning calculator of pleasurers and pains" (Veblen 1919: 73).

In this way, institutional scholarship has embraced a belated recognition of Herbert Simon's conception of bounded rationality (Simon 1957). Bounded rationality contends that humans lack a complete understanding of their environment because of cognitive and informational limitations, and that it is simply impossible for an individual agent to possess perfect information. In this way, brainpower is economised and uncertainty diminished via the

imposition institutional structures, or decision heuristics like convention, routine, institutional rules and organisations that function as coordinating mechanisms to limit and minimise uncertainty, and facilitate ease of decision-making (Nelson & Winter 1982: 35; Eggertsson 2013: 3-4). Much of this is consistent with the conception of money as an institution, with one critical difference.

For much of the 1970s and 1980s, the dominant research project within the "new institutional economics" (NIE) paradigm was the elucidation of the existence of legal, social and political institutions as established facts. Likewise, individual behaviour was modelled as a given, and outlined in terms of human interactions. This attempted to explain an evolution or progression from individuals to institutions, seemingly taking the individual from an institution-free, original state of nature, but from where institutions are said to have emerged (Hodgson 2007: 12). However, the viability of this assumption was swiftly questioned, as it means that NIE models always presume that given individuals or agents act within the context of a governing set of rules to regulate behaviour. Paradoxically, in this original state whence institutions are said to emerge, the role of social and cultural norms, and rules and institutions were themselves taken for granted (Field 1979, 1981, 1984). In this way, Williamson's (1975: 20) assertion that "… in the beginning there were markets …" whence individual agents proceed to create hierarchies and firms, all of which survived if they managed to lower transaction costs, begins to come somewhat undone. Markets are themselves institutions involving complex rules, which rest on social customs and norms and established exchange relations, along with networks of information, all of which need accounting for; meaning markets cannot be an institutionally free origin (Hodgson 2007: 12). Likewise, assertions that private property emerges spontaneously via agent interactions involving elements like reputation (North 1991) come apart under large-scale uncertainty, and some scholars from within the institutional tradition have also questioned the ability of property rights to emerge in complex societies without any role being played by the state (Send 1997; Mantzavinos 2001).

The world cannot be interpreted without concepts, in the same way that communication cannot occur without language. Thus, in much the same way as the early "American" or "old" institutional economic scholarship (OIE) asserted, information is transferred to individuals from institutions via a corresponding or coextensive process known as enculturation, whereby individuals learn the values and meanings imbedded into sensory data

that is communicated. This implies that any explanation or exploration of the origins of an institution cannot be institution-free, as such propositions are artificial and unattainable (Hodgson 2007: 12-13), and any original state of nature suggestions speak more to the paradigmatic, ideological assumptions and value biases inherent in the questions the researcher poses. Rather, theory should, as Nobel Prize winning econometrician Trygve Haavelmo (1997: 15) observed, begin with an "… existing society and conceive of it as a structure of rules and regulations within which the members of society have to operate." Individual responses to these structures create the economic results that distinguish the society. The suggestion is that specific historical institutions ought to be factored into the analysis from the start, stressing the evolution of institutions, at least partially, from other institutions.

1.2.4 Debt theories of money

Two path-breaking contributions to monetary scholarship were made within a decade of each other by the University of Strasbourg's Professor of Political Economy, George Frederich Knapp, and by British diplomat, Alfred Mitchell-Innes. At a time when 'metalism' was in vogue, these scholars attempted to postulate a fully-fledged theory of money as debt. Knapp's research has since become a regular feature in the monetary theory literature as a leading exponent of chartalism, or the theory behind state-fiat money. Mitchell-Innes, like monetary reformer Silvio Gesell, received great praise from John Maynard Keynes, but much of his work was largely overlooked until a discovery and revival by "new" chartalists like Larry Randall Wray. Both arguments are closely associated, with some minor variances (Dodd 2014: 102-103).

To Knapp, money is a system of tokens acceptable by the state for payment of taxes. The unique role of the state as a creditor and tax collector empowers its ability to define money. Knapp (1924: 24) held that the state performs two important monetary functions – choosing the means of payment and defining the unit of value. He did point out that this did not simply involve the declaration of what, by law, money is (Knapp 1924: 111). Naturally, taxes are the most frequent debt that people incur (Lerner 1947: 313) and if the state then issues tokens and declares them an acceptable payment for taxes, these tokens will inevitably also become widely accepted as a means of payment for other kinds of debt (Knapp 1924: 52). Other

forms of debt may circulate too, but these will always be secondary to the one he called *valuta*, or the money that taxes are paid in (Knapp 1924: 158; Dodd 2014: 103).

Knapp's "*The State Theory of Money*" (1924) provoked fierce debate in Germany. Weber (1978: 169) applauded it as "absolutely correct", but pointed out that Knapp had underrated the influence of political and private interests in influencing monetary policy. He also argued that such pure token money would generate inflation, which would be beneficial to the state as its borrowing costs would be lower, as well as to private entrepreneurs who would be able to exploit the ensuing rise in prices (Weber 1978: 186-187). Knapp's belief was that a state's self interest in maintaining a strong currency would safeguard it against inflation. This perception, however, did not deter the use of his theory to justify relaxed monetary policy in the aftermath of the First World War (Dodd 2014: 103). Moreover, this use of Knapp's theory was probably the pretext of Weber's criticism (Schumpeter 1986: 1057). Consequently, Schumpeter was more critical of Knapp, dismissing his work for expressing the hackneyed truth that if a state declares a token an acceptable means of payment for taxes, the value of the token increases. To Schumpeter, this position illuminated little upon the nature of money, and he pointed out if this were the case, one may as well consider marriage as a creature of the law (Schumpeter 1986: 1056). Contemporary chartalists argue that Schumpeter misrepresented Knapp's ideas, watering down chartalism by generalising about government money being accepted because of legal tender laws, something Knapp was actually dismissive of, citing such laws as a form of "pious hope" (Knapp 1924: 242). John Maynard Keynes broadly agreed with Knapp's theory. He argued that Knapp's theory becomes fully realised when states assume the rights to both name money and determine what must correspond to the name. To Keynes, money was anything the state accepts for payment of taxes, regardless of whether it was accepted as legal tender among the citizenry (Keynes 1976 [1930]: 6-7). Therefore, chartalism emerges when the state determines which objective standard corresponds to the unit of account (Keynes 1976 [1930]: 11; Dodd 2014: 104).

About a decade before Knapp, Alfred Mitchell-Innes published two influential articles in the *Banking Law Journal* that have since come to be regarded as seminal assertions of the credit theory of money (Mitchell-Innes 1913; Mitchell-Innes 1914). Mitchell-Innes considered money to be nothing but credit, or an intricate system of circulating transferrable debt. "A's money is B's debt to him, and when B pays his debt, A's money disappears. This is the whole

theory of money." (Mitchell-Innes 1913: 402). Essentially, Mitchell-Innes was pointing out that money is not a promise to redeem or hand over a material object, like gold, but rather that it presents the opportunity to cancel a debt (Mitchell-Innes 1913: 393). Thus, the most important monetary characteristic, recognised in every society, is its allowance or conferring on the holder the possibility to emancipate himself from debt by its means. Similarly, Mitchell-Innes' conception of the monetary system as an arrangement where credits and debits are persistently attempting convergence in order to be written off against each other (Mitchell-Innes 1913: 402), echoes Knapp's position of the role of taxes in determining the *valuta*. Both theorists harboured a shared aversion toward metalism, with Mitchell-Innes describing it as an invented tradition. He considered credit to be older than cash and argued that, for a great deal of time, credit was the primary instrument of commerce, and not cash. Exemplary of this, he cited tally sticks and bills of exchange, publically or state-organised transferable instruments that were far more common than coins were, which, even when used as money, were never really uniform in weight or size (Mitchell-Innes 1913: 394). Moreover, to Mitchell-Innes, it was the official stamp, or issuer's mark, and not the coins' material properties' which conferred to it its value (Dodd 2014: 104-105).

Both Mitchell-Innes and Knapp's views have often been analysed in conjunction, although their outlooks contrasted on two critical points (Dodd 2014: 105). Firstly, Mitchell-Innes did not have any sympathy for the idea that states enjoy the privilege of naming rights over money and he rejected the notion that debts to the state, or taxes, allocate any kind of special dispensation over the declaration of what money should be. Here, Mitchell-Innes was closer to modern monetary reformers who would exclude the state altogether from the production and regulation of money. Secondly, Mitchell-Innes' and Knapp's positions diverged concerning the banking system. Knapp's analysis gave banking hardly a mention, whereas Mitchell-Innes heaped praise on banks, calling them wonderfully efficient machinery. To Mitchell-Innes, the debt relationship within money is not characterised as bilateral, so to speak, or as between taxpayers (or citizens) and the state, but rather trilateral between lenders, borrowers and banks. Banks are centralising and clearing mechanisms for debts and, in this way, government money is not superior to bank money. Like all other forms of money, Mitchell-Innes saw government money as a promise to redeem, satisfy or pay, just like the others. Interestingly, Dodd (2014: 105) observes that banks fulfil the same role in Mitchell-Innes' theory as the state does in Knapp's theory, being that of underwriting and coordinating the monetary system as a whole.

Contrary to Knapp, Mitchell-Innes did not think that government coins enjoyed any special right to satisfaction over any other kinds of credit. Similarly, he noted it was the responsibility of the taxpayer to redeem his or her portion of the debt the government contracted via issuances of its money, be that in the form of drafts on the treasury, notes, certificates or coins. The only issue of any consequence was the creditworthiness of the issuer, and Mitchell-Innes was of the opinion that bankers' credit was here just as sound, if not more so, than the governments'. It did not matter where the dollar came from, it was a dollar. But similarly, in principle, if anyone could issue money, then anybody who incurred a debt was also issuing his or her own money, which could or could not be identical to a dollar of someone else's money. The problem this raises is one of guarantee, as to who or what assures the value of money in such a personalised form. Moreover, although anyone can issue debt, this has to be transferable in order for it to be used as money, and therefore the relationship of debt within money logically must work differently than regular debt does. Dodd (2014: 106) suggests that these debts, or promises, require the backing of an identifiable collective body or society in order to function as money. He further advises consideration of neochartalism to discover if the state or banking system is functioning as a proxy for this society.

1.2.5 Neochartalism

Essentially, neochartalists seek to merge elements of the works of both Knapp and Mitchell-Innes with a theory of credit that seeks to place a greater emphasis on the role of the banking system. In this way, one of the leading neo-chartalists, L. Randall Wray, is also referred to as a modern monetary theorist. His work is premised on the post-Keynesian perception that an effective quantity of money within an economy is influenced by the internal dynamics thereof, or more specifically, the demand for credit.

Wray's variety of this theory is chartal because he places great importance and emphasis on the role of the state, and his ideas can be abridged by the notion that money is driven by taxes. Like Knapp, he considers money as a token that, when issued by government, is always in demand because of its acceptability in payment of taxes. Thus, the state generates demand for its own currency by simply imposing a taxable liability (Dodd 2014: 107).

In Wray's model, both government borrowing and spending are critical elements of what constitutes money within an economy as a whole. Spending is facilitated by the issuance of checks drawn against its treasury. The recipient then either withdraws currency at a bank to spend (which would first increase and then decrease the banks reserves) or deposits the check into his or her account (which credits the bank with reserves at the central bank). These government 'IOUs' can thus be used in the economy to purchase goods or services, and government bonds, or to pay taxes. But importantly, according to Wray, the central bank performs no essential role in any of this. In Wray's conception, the central bank's sole function is to credit bank reserves. It is unable to exert control over the quantity of money reserves, since these are dependent on the actions of the private sector and the treasury (Wray 2006: 98). The quantity of money is determined by fiscal policy, or government spending, while monetary policy establishes the overnight interest rates. This is an inversion of the conventional thinking about how government spending is funded. An important distinction for Wray (2006: 81) is that the treasury spends prior to the auction of bonds or collection of taxes, as treasury spending is held to add to reserves, while taxation empties reserves. Government bond sales are also held to drain monetary reserves.

Wray's argument occurs in three phases. Firstly, he notes that whenever there is a government deficit, it follows there will be excess bank reserves, or the amount of fiat created surpasses the amount removed via tax payments from bank reserves. Secondly, then, wholesale markets cannot eliminate funds, but merely reallocate them, moving them around. Finally, bonds are sold to strip down the excess and prevent overnight rates dropping to zero, which would instigate a severe market disruption. The effectual functioning of this mechanism requires the coordination between the relevant governing organisations. In the United States of America (USA), this occurs between the Federal Reserve and the Treasury, with the former making use of repos and the latter arranging bond sales. In the United Kingdom (UK), the same functions are carried out by the Debt Management Office, which functions under the treasury, and the Bank of England (Wray 2006: 86). This is good example of what new institutional scholarship (Richter 1988: 210) classifies as a chartal currency order, splitting the accounting and purchasing power security (PPS) orders to guarantee a currency's purchasing power.

Wray thus incorporates a verticalist approach to the creation of fiat money from Knapp, with a horizontalist perspective of bank money that is modelled on Mitchell-Innes and Minsky. The money Knapp referred to as *valuta* or fiat money is high-powered legal tender because the government receives it. This is also the money into which all others are convertible and is used in clearing, thus it is the most liquid domestic money connecting public and private payment communities (Wray 2006: 77). Most importantly, from Minsky and Mitchell-Innes, Wray points out that *valuta* lies below the debt pyramid that constitutes the financial and monetary system. Other forms of money, like bank money, privately issued loans, commercial paper money, or other forms of IOU, are mere leverages of the monetary things that the government accepts (Dodd 2014: 108).

The foremost exponent of chartalism in social sciences is Cambridge sociologist, Geoffrey Ingham. Ingham's approach also merges state and credit theories of money and is particularly accepting of Mitchell-Innes' notion that all money essentially is credit. Like Graeber, Mitchell-Innes and Wray, Ingham (2004: 240) also notes that not all credit is necessarily money. Ingham's position is advanced via a historical analysis of what he terms 'capitalist credit money'. Its emergence is dated to the seventeenth century when the tokens used to signify private debt evolved into the more commonly acceptable, and later legally enforceable, method of payment. Two developments in early European trade and banking facilitated this acceptance. Firstly, merchant bills of exchange increasingly began to be disconnected from the commodities they underlay, and similarly, these bills separated from the identities of specific debtors and creditors. The latter development was enabled by the rise of written contracts that allowed a bilateral debt to be settled by a third party. Such paper bills eventually became money, but not before they began to circulate outside networks of bankers, was this possible. Here, the transition to money required the state, but paradoxically, it was the institution of metallic standards for money which provided the basic foundations for a financial structure where credit money could prosper again. The majority of these standards were enacted via the establishment of the Bank of England in 1694 and during Sir Isaac Newton's tenure as governor of the Royal Mint between 1699 and 1727. For Ingham (2004: 124-131), such standards were critical in delivering a politically and socially secure monetary environment, underlined by a robust political and fiscal system which could generate the infrastructure for the development of capitalist credit money (Dodd 2014: 108-109).

To Ingham, the monetary system is not simply a system of institutional arrangements, binding central banks and treasuries on the one hand, and private banks on the other. Rather, the state is mixed up in a continuous conflict between the interests of creditors and debtors that is compared to a great struggle between two social classes. Max Weber considered prices to be the manifestation of the conflict between the interests of consumers and the interests of producers, noting that prices are "… estimated quantifications of relative chances in this struggle of interests" (Weber 1978: 107-108). Similarly, Ingham considers the interest rate to be indexical of the contest between creditors who seek to protect, preserve and store value in money, while controlling its supply and extracting value, and debtors or producers of commodities, providers of services and consumers, who attempt to monetise their market power via rising prices or borrowing. To Ingham (2004: 207-208), that conflict establishes the value of money. Moreover, Ingham's view sees each group as distinct and relatively autonomous. The state organs, treasuries and central banks constitute the location of the struggle (Ingham 2004: 150). Inflation or monetary disorder emerges whenever this struggle becomes unstable, and in this way, the production of money involves a continual realignment of the power relations among economic interests, and monetary policy thus equates to a fortification of any balance of power that has emerged (Dodd 2014: 109).

Ingham is keen to point out that despite money's value being established by competing interests, it is a political authority's determination of what money is, and this authority transcends the competing interest groups. Despite acknowledgment of banks' role in the monetary creation process, the state issues a hegemonic meaning for money by defining the unit (or money) of account. This view is shared by Keynes (1976 [1930]: 3). In Ingham's opinion, it is money's function as a unit of account that is imperative to our understanding thereof, noting that it always is an abstract claim or credit whose "moneyness" (Ingham 2004: 198) is bestowed via unit of account. He therefore has two definitions for money. Firstly, referring to Simmel's notion that money is a generic promise to pay, it is thus a unique form of credit due to the fact that it is the expression of the relationship, not between two individuals, but rather between every individual and all of society. Secondly, Ingham maintains that only those promises denominated in the official money of account can be construed as money. Since it is the state that possesses the required authority to designate the money of account, money cannot be understood without a reference to authority, and is therefore a form of sovereignty (Ingham 2004: 12).

Imaginably, debt and chartal theories of money have tended to be antithetic to mainstream economists working within the confines of Adam Smith's tradition. Indeed, the inclination has been to see chartalism as something of a populist underside of economic theory, preferred by oddballs. Curiously, though, many of these mainstream economists tended to end up working for or advising governments, counselling them to practise policies much like those the chartalists advocated for, or that is, urging the pursuit of tax policies devised to create new markets where none had existed before. This, despite the fact that they were theoretically dedicated to Smith's assertion that markets spontaneously emerge. This was especially the case in the colonial era. For example, one of the conquering French general Gallieni's first actions imposed on the Malagasy after the subjugation of Madagascar in 1901 was a head tax (Graeber 2014: 50). This was not only expensive, but also only billed in newly issued Malagasy francs. So, the colonial government created a local market by printing money and then demanding everyone in the territory make use of it and then give the colonial government some of that money. Interestingly, the colonising French referred to this tax as the "*impôt moralisateur*" or the educational, moralising tax. Essentially, using the language of the time, this functioned to teach the native population the value of work and to develop new consumer tastes and habits, preferences and expectations among the local population, constituting the foundation of consumer demand that would keep the Malagasy economically tied and dependent on France, long after the departure of their colonial conquerors (Graeber 2014: 51).

Madagascar's educational tax was usually due after the harvest, and thus the simplest way for them to pay the tax was to sell off some of their rice crops to the Indian and Chinese merchants who had established themselves countrywide shortly after the arrival of the French. Naturally, the market price for rice was at its lowest during harvest months and farmers had to be cautious of selling off too much of their crop to pay the tax, or risk being unable to feed their families for the rest of the year, with the only contingency to hunger being debt with those same merchants who would, naturally, sell rice back later in the year at a much-elevated price. Similarly, merchants also functioned as creditors (or loan sharks, more appropriately) and farmers quickly fell desperately into debt with these creditors. The solutions to this debt were to either begin growing a cash crop like coffee or pineapples that one could sell, or alternatively, to ship one's children to the city or new French plantations being established across the island to work for wages. Graeber (2014: 51) notes that if the whole scenario sketched out also seems like an attempt by the colonial authorities to extract

cheap labour from the population, it is because it actually was. He is also keen to point out (2014: 52) that examples like this are in no way unique. Something similar occurred just about everywhere in the world where Europeans conquered territories. Rather than discovering a land of barter, the colonists used the very theories that mainstream economics rejected to bring something like markets into existence (Graeber 2014: 52).

1.2.6 Primordial theories of debt

The biggest problem for credit and state theories of money has been the element of taxation. It is fair enough to suppose that states demanded taxes for the creation of markets, but this presumption then raises the question as to what gives them that right? It is not as if any credit theorists presume that early rulers were merely a horde of thugs, extracting what amounts to extortion and justifying it on grounds of protection or divine right. Contemporary modern societies consider this question resolved. Taxes are paid so that services can be provided by governments. This commences with protection and security, but for very long, military protection was barely the only service that most states could effectively deliver. Contrastingly, today's governments provide a multitude of services to their populaces, all of which are said to emerge from some kind of original "social contract" which everyone somehow agreed to, but none is sure as to when this was approved, or by whom. Like Adam Smith's barter myth, modern social contract theorists claim that it is not necessary to assume this is a fact of history that occurred at some point, rather, it is sufficient to assume that it could have happened and move on, as if this were established fact (Graeber 2014: 55, 406). Likewise, if one assumes that markets precede governments, it would all make perfect, rational sense. The argument comes undone, however, when one looks at the historical record and realises they do not.

"Primordial debt theory" seeks to advance an alternative that maintains consistency with the state and credit approaches to monetary theory. This alternative explanation for the origins of money developed in France around a research team of historians, anthropologists and economists. Initially, the research centred on the figures of André Orléan, an advocate of the "economics of convention" preferred by Boltanski and Thevenot, and Michel Aglietta, a Marxist and co-founder of the "regulation school". Contemporarily, this position has been advanced by other well-known regulationists like Bruno Théret. Disappointingly, the

majority of this work has not been translated into English, Grahl (2000) being the exception, with a summary of Aglietta's contributions (Graeber 2014: 406-407). More recently, primordial debt theory has also found adherents among neo-Keynesians in the USA and UK (Graeber 2014: 55).

The position appeared recently and generated from debates around the nature of the Euro. The formation of a common currency in Europe ignited a variety of debates – political, economic and social – about the implications this would have for states and citizens in Europe. The principal argument of primordial debt theory is that it is fundamentally wrong to separate social policy from monetary policy. Primordial debt theorists insist these have, historically, always amounted to the same thing. In this view, states utilise taxes for monetary creation, which they can do because governments are the guardians of the debts that all citizens owe each other. This debt is the basis of society. Its existence precedes markets and money, which are themselves just means or ways of dividing and allocating parts of the social debt (Graeber 2014: 56).

Initially, according to the argument, communal debt was expressed via religion, not the state. In order to make this assertion, Aglietta and Orléan focused on early texts in the Sanskrit religious literature, a collection of poetry, hymns and prayers called the *Vedas*, and a composition of priestly commentaries from the centuries that followed, the *Brahmanas*. Collectively, these texts are considered to be the basis of Hindu thinking, and are not as strange a choice as they initially may seem (Graeber 2014: 56).

The *Vedas* and *Brahmanas* contain some of earliest known and recorded historical considerations about the nature of debt (Graeber 2014: 56). Even some of the earliest Vedic poetry, penned between 1500 BCE and 1200 BCE, exhibits a continuous obsession with debt, sometimes treated as tantamount to sin and guilt. There are multiple prayers beseeching the gods to release the believer from the shackles of debt. Sometimes they are clearly metaphorical, but a number of cases refer to debt in the literal sense too. Similarly, the god of death, *Yama*, features significantly. Being indebted was tantamount to having a weight placed on an individual by death. Living with or under any sort of unfulfilled obligation or promise, to either men or the gods, was tantamount to living under the shadow of death. Likewise, in the texts where debt is more of a metaphor, it seems to personify a broader sense of inner suffering that individuals beg the gods for release from. It was in the writings of the

Brahmanas where commentators began to piece together multiple threads like these into a more comprehensive philosophy, which concluded that human existence is, in itself, an arrangement of debt (Graeber 2014: 56). In being born, man is himself a debt to death, which he can ultimately only redeem himself from via sacrifice.

Thus, sacrifice was referred to as a "tribute paid to death" (Graeber 2014: 57). Many of these early commentators and contributors to the *Brahmanas* were themselves sacrificial priests who probably knew better than any other that such sacrifices were, in reality, directed towards all the gods, as death was merely an intermediary. But the conception of human life through such an idiom does raise a problem. If human lives are just a loan, who would desire to pay such a debt? After all, living indebted is to live a life of guilt, which is incomplete. But completion requires annihilation, destruction or death.

A practical solution for this was to broaden the concept of debt, and frame social responsibilities as such. In this way, two well-known passages from the *Brahmanas* contend that humans are born not only as debts to the gods redeemable via sacrifice, but also as debts to the sages who generated the Vedic wisdom, which must be repaid via study and learning; as debts to the ancestors that must be repaid in bearing children; and debts to men, seemingly referring to humanity in its entirety, which are redeemable by the offer of hospitality to strangers. So, according to Brahmanic study of the Vedic knowledge, anyone who lives a proper and decent life is perpetually paying back existential debts in one form or another; simultaneously though, the horrifying idea that an individual's existence is a loan taken out against death is replaced by a simpler sense of social obligation. This is because social obligations work both ways; for example, after someone fathers children, they are as much a debtor as a creditor too (Graeber 2014: 57).

The contribution of primordial debt theorists was the suggestion that the concepts imbedded into the Vedic texts are not particular to the intellectual tradition of Iron Age priests from the Ganges valley, but rather fundamental to the history and nature of human thought. In this way, Théret (1999: 60-61) begins his account of the origin of money with a "relational representation" of death as an invisible world, both prior and subsequent to life, with the symbolic function envisioning human existence as an original debt acquired by all individuals to the universal, cosmic forces of creation. This debt cannot be settled, and as such, takes the form of sacrifice to replenish the credit of the living. This claim is similarly

supported by the development of a sovereign power whose legitimacy inhabits some kind of ability to represent the cosmos. This power, Théret (1999: 60-61) contends, created money as a way to settle debts. The institution of money similarly transfers belief into currency, which when circulated by the other institution that deals with the tax and settlement of debt (the state), then functionally becomes the means of payment.

Graeber (2014: 58) observes that Théret is actually constructing a rather novel synthesis in his argument. Human nature does not compel people to "truck and barter", but militates against such behaviour via the generation of symbols, like money. Similarly, this rationality is at work in human self-conception as being indebted to the universe, being a result of our place in the vast cosmos surrounded by invisible forces. The novel action taken by Théret is to reunite this with state theories of money, as his use of "sovereign powers" (Théret 1999: 60-61) infers the state. The first kings were considered sacred because they were seen as gods or thought to be privileged intermediaries between humans and the forces which ultimately governed the cosmos. This paves the way for the slow realisation that humans' so-called debts to the gods were always just debts toward the society responsible for shaping these people. Or, as Ingham (2004: 90) puts it, the primordial debt is the one which is owed by the living to the "continuity" and "durability" of the societal structure which safeguards the individual's existence. So, as Graeber (2014: 58) points out, every member of a society, not just the criminal element, owes a debt to society. In a sense, all are guilty. Ingham (2004: 90) is also keen to note that, despite a lack of physical evidence to support such a notion, there is a large amount of good etymological evidence. The words for 'debt' in all Indo-European languages are synonymous with words for sin and guilt. This is Indicative of the linkages between religion and mediation, and payment or appeasement of the sacred realms by money. The old German word for money, "*geld*", is much like the old English word for indemnity or sacrifice, "*geild*", and the Gothic word for tax, "*gild*". All of these naturally function as synonyms for "guilt" too (Ingham 2004: 90).

Historian Bernard Laum pointed out another curiosity, that cattle were often used as money. He noted that in Homer, the value of a suit of armour or ship was said to be measured in oxen, despite cows never actually being used in exchange. This may have been because oxen are what one would sacrifice to the gods, and must have hence represented absolute value. Similarly, in Ancient Greece and Sumer, where gold and silver were offered as sacrifices in temples, money could have emerged from the object that was most suitable as gifts or

offerings to the gods. Kings merely took over custody of the primordial debt that every member of society owes for their creation, which neatly explains why governments feel they are entitled to make people pay taxes. These taxes are simply measures of each individual's debt to the society that conceived them (Graeber 2014: 59). The problem is, this does not elucidate how this absolute kind of life debt became convertible to money, which is itself a means of comparing and measuring different things.

Both credit theorists and neoclassical economists meet the same problem here, despite arriving at it from different directions (Graeber 2014: 59). If one departs from a barter theory of money, the problem to resolve is why and how one would come to choose one commodity for quantifying how much of another commodity one desires. If departing from a credit theory, one is confronted with how to quantify a specific moral obligation into a monetary value, or how the idea of owing an individual a favour could evolve into a system of accountancy with the ability to quantify how many litres of barley or *minas* of wool or pieces of silver it would take to cancel a debt. In the case of primordial debt theory, the question would be as to how humanity progressed from absolute debts owed to gods and deities to more specific debts owed to bartenders or neighbours.

Primordial debt theorists argue that if taxes are representative of humans' absolute debts to the society that conceived them, then the primary step in the creation of real money arrives when people begin calculating more specific debts owed to society, like fees, penalties and systems of fines, as well as debts owed to individuals for specific wrongs, inflicted damage or appeasement to an individual who someone stands to in a relation of guilt or sin. This assertion is less improbable than one would actually think. Graeber (2014: 60) notes that one unifying element of all theories considered thus far is their common neglect of anthropology. Anthropological evidence is of great importance here, as anthropologists possess an immense amount of experience and knowledge of how economies function in stateless societies. There are countless studies chronicling the use of cattle for monetary valuation in Southern and Eastern Africa; the use of shell monies like *wampum* in the Americas; and the use of feathers, beads, cowries, spondylus shells, brass rods, and iron rings, from Papua New Guinea through to Polynesia. The reason economists pay little attention to these is because such "primitive" currencies are seldom used to buy and sell items, and even when that is the case, they are never used to purchase everyday items. Rather, such monetary forms are used to reorganise social relations, most commonly for arranging marriages and dispute resolution, especially

those emanating from personal injury or damage. Additionally, Mitchell-Innes observed that the modern conception of money could have started out this way, as the phrase "to pay" emerged from the word for "appease" or "to pacify", as one would by giving something valuable to someone whom one hopes to appease in light of a wrong or transgression, or in order to avoid an ongoing feud or dispute (Mitchell-Innes 1913: 392-393; Graeber 2014: 60). The primordial-debt perspective is attractive as it proposes an intuitive sensibility that appeals to the interrelated dependencies that define contemporary interactions, post division of labour, as it were. Ultimately, though, primordial-debt theorists are clearly inventing their own kind of myth.

The choice of text is noteworthy. In contemporary scholarship, almost nothing is known about the society that created the Vedic texts, let alone if interest-bearing loans existed in the time that these works were originally composed. This would logically effect whether or not the priests considered sacrifice as a form of interest payment owed to death (Graeber 2014: 63). Furthermore, the earliest Sanskrit texts were religious and were passed on orally for thousands of years, and this predominance of oral tradition makes conclusive dating impossible. Contrastingly, a large number of Mesopotamian myths, religious documents and hymns survived in temple and library ruins, and these were complimented by massive volumes of business contracts, loan contracts, court records and personal correspondence. All of this points to a much stronger historical and empirical foundation for the assertion that the earliest forms of money emerge from these societies' credit arrangements (Graeber 2014: 408). Naturally, then, the Vedic texts can be seen as somewhat of a blank canvas for theorists, on which anything could be projected. The other civilizations furnished with a better historical record indicate no similar notions of sacrifice as payment or interest on death. Similarly, a referral to ancient theologians indicates that those most familiar with the concept of sacrifice as a means whereby a human could enter into commercial or contractual-like relationship with gods considered such an idea flagrantly ridiculous. Exchange would imply an equity that does not exist between a human and a cosmic force so great, and so that whole idea was regarded as impossible to begin with (Graeber 2014: 63).

Analogously, the idea that the debts owed to the gods or cosmic forces were appropriated by the state which constituted the basis for the system of taxation does not hold much water, either. The problem, again, is the basis of the argument, as this did not happen in the ancient world. Citizens did not pay any taxes. Taxes were generally levied on conquered populations.

This was already the case in the earliest known civilisations. Ancient Mesopotamian natives did not pay direct taxes. The Greeks considered them tyrannical and avoided them whenever possible. Athenians paid no direct taxes at all, despite the city sometimes distributing money to the citizenry, directly and indirectly. Subject cities, however, had to pay tribute or taxes (Graeber 2014: 63). The same goes for the Persian Empire, where subjects paid no taxes to the king, but inhabitants of subjugated provinces did. For a long time, the Roman Empire levied taxes upon its subject provinces, sharing this wealth among Roman citizens, who were also untaxed. All of these states did levy fees, tariffs, penalties, fines and rents, but none of this makes for an easy reconciliation with any kind of theory claiming that state's primary conception as some kind of cosmic guardian of primordial debts, or any theory that even fits comfortably with the idea of taxation for some or other "social contract". Curiously, none of the primordial-debt theorists refer often to ancient Sumer or Babylon, the very places where the practice of making loans with interest emerged around two thousand years prior the composition of the *Vedas*, and the location of the first primitive states (Graeber 2014: 64).

The biggest problem with the body of literature is the opening premise: that humans owe an infinite debt to something called "society" (Graeber 2014: 65). This can be projected onto the gods, or can be taken up by kings and state governments. The danger is in the conception thereof, of a world assumed to be arranged into modular, compact units called societies where each individual knows their place, and to which one they belong. The problem with this assumption is that it is historically rarely the reality of the situation, and ideas about 'belonging' all too often fall into many shades of grey. Empires and kingdoms have scarcely been the focal points of reference in people's lives, as kingdoms strengthen and weaken, rise and fall. Governments tend to only periodically make their presence in individuals' lives felt. Until fairly recently, many of the world's citizens were not sure of which country they held citizenship to, or why it may actually matter, anyway (Graeber 2014: 66).

So, if humans are born with an immeasurable debt to all those who facilitated their existence, but under this conception there is no natural societal unit, who is the creditor of this debt? Everything or everyone? Or some things and people more so than others? Most importantly, who may claim the authority to instruct anyone as to how they can repay this debt, or on what grounds? Framed in this way, the *Brahmanas* are providing something of a sophisticated reflection on a moral question that few have been able to deal with better since. What little evidence remains, suggests that the crucial documents date from around 500 BCE to 400

BCE, more or less the time of Socrates, by which time India seems to have become a commercial economy with institutions like interest-bearing loans and coins, and money becoming conventional. Much like Greece and China, the intellectual classes in India were wrestling with the implications of questions, like what it means to imagine obligations and responsibilities as debts, and to whom the human existential debt is owed. Interestingly, the answer to such questions in the Indus Valley did not mention any "states" or "societies", although governments and kings certainly existed in ancient India (Graeber 2014: 67).

These theories of existential debt, then, tend to be contrastingly used to justify structures of authority, rather than to offer a serious alternative. One could even say that they constitute the ultimate nationalist myth (Graeber 2014: 71). The narrative sounds something like this: at one time, all humans owed their lives to the gods that created them; they paid interest on this debt in the form of sacrifices; and finally, they paid back the principal on their deathbed. Contemporarily, this debt is owed to the nation that sired them, and interest is collected in the form of taxes, with the caveat that these lives are redeemable by the state, should it need defending from its enemies. This is the great deception of the twentieth century: humanity is presented with two arguments. One contends the logic of the market, where everyone starts out as individuals, and no one is indebted to anybody. The other argument is the logic of the state, where everyone starts out with a debt that they can never hope to repay (Graeber 2014: 71). Additionally, these arguments are presented as opposites, incompatible and, importantly, as presented, it is claimed that only they contain the real prospects for human organisation, but this is a false dichotomy.

1.2.7 The seeds of something different: Georg Simmel and his philosophy of money

Georg Simmel rejected all economic theories. This included Marxist value theory, which located monetary value in its specific substance or money-stuff. To Simmel, monetary value emanated not from supply or demand, the costs of its production, or the value of labour, but rather from its function as the representative of abstract value (Simmel 2004 [1907]: 118). He saw this as "… the value of things without the things themselves" (Simmel 2004 [1907]: 119). Money was the "… distilled exchangeability of objects … the relation between things, a relation that persists in spite of the changes in the things themselves" (Simmel 2004 [1907]: 122). Simmel followed the Historical School's nomalists, stressing the pre-eminence of the

abstraction of unit of account. Money is thus auto-referential, or as Simmel put it "… one of those normative ideas that obey the norms that they themselves represent" (Simmel 2004 [1907]: 120; Ingham 2004: 63-64).

He showed a remarkable insight into the nature of money by taking it to its conceptual extremities. At the zenith of the gold standard, he asserted that money best performs its functions when it is not simply money, that is, when it is not representing the value of things in pure abstraction (Simmel 2004 [1907]: 163). To Simmel, it was not actually viable to achieve what he called the "technically correct", namely the transformation of the monetary function into purely token money, while completely detaching it from every substantial value-limiting monetary quantity, despite his prediction that, "… the actual development of money suggests that this will be the final outcome …." (Simmel 2004 [1907]: 164). Relatedly, Simmel understood what orthodox economists did not; that monetary exchange is structurally different from barter, and that this form of exchange is composed by a social relation of credit. To Simmel, money is a form of sociation, not a thing at all, "… money is only a claim upon society." (Simmel 2004 [1907]: 176).

Simmel also understood that metallic money, long considered the antitheses of credit money, is embedded with two assumptions of credit which are especially interwoven. In the first instance, the substance or metallic content cannot be tested during normal transactions and is, instead, corroborated by stamping secondary characteristics into coins by an issuing authority (or agent in the chartal and institutional lexicons). Secondly, he pointed out that people who use the money must trust in the tokens' ability to retain value, and this belief is based on objective probabilities. To Simmel though, this form of trust was just an anaemic kind of inductive knowledge. There could never be sufficient knowledge or information for it to be the only motive for holding money. Furthermore, money required a sort of "supratheoretical belief" or "social-psychological quasireligious faith" (Simmel 2004 [1907]: 178).

In this view, money represents "… the purest reification of means, a concrete instrument which is absolutely identical with its abstract concept; it is a pure instrument" (Simmel 2004 [1907]: 211). The qualities of this abstract value dwell in social organisation and "supra-subjective norms" (Simmel 2004 [1907]: 210; Ingham 2004: 64-65). Like Weber, Simmel understood that the development of modern dematerialised and state money was familiarly linked. Modern states were largely formed on a foundation of coinage and credible metallic

standards. Money, in turn, led to the dissolution of the familiar, personal bonds that underpinned feudal relations, while the application of monetary transactions led to an incursion into private and personal modes of exchange by the governing power. Monetary value is thus premised on a promise embodied by the central political power, substituting the importance of the metal. Simmel (2004 [1907]: 184) noted that historically, this process of coercion always preceded any form of trust in the institution of a currency (Ingham 2004: 65). It is worth remembering that, as Ingham (2004: 65) points out, modern analysis tends to be forgetful of the brutal and extreme forms of physical coercion that accompanied the establishment of monetary sovereignty.

1.2.7.1 "Perfect", "conceptually correct" and "stable money"

Simmel was not an abolitionist nor a monetary reformer. Rather, Dodd (2014: 316) argues there is a strong utopian undercurrent running through the often simplistically analysed "*The Philosophy of Money*" (Simmel 2004 [1907]), most notable of which are his remarks concerning the formal affinities between socialism and money. His analysis examines multiple schemes (including labour money) for the reconfiguration thereof as a progressive social technology. Simmel's project was to carry such specific ideas about money to their logical extremes, illuminating money's significance from multiple, differing perspectives. For example, the idea of perfect money arises multiple times in Simmel's philosophy (Dodd 2014: 316-317).

In his opening chapter, Simmel mentions a form of "conceptually correct" (Simmel 2004 [1907]: 163) money that is completely detached from any substantial value that limits its quantity. Clearly, most scholars have taken this to mean token money (Ingham 2004: 64), but Dodd (2014: 317) thinks the language used is strange. "Conceptually correct" implies a theoretical position against which a particular monetary form ought to be deemed complete or correct. Elsewhere, Simmel also refers to "perfect money" (Simmel 2004 [1907]: 127, 211, 221, 235, 278, 350, 490) and a "pure" concept thereof (Simmel 2004 [1907]: 117-118, 119, 125, 128, 166, 167), and here Dodd (2014: 317) believes that all of these references are of the same fundamental idea. Pure, correct or perfect are all fictions in Simmel's analysis. They function like Weber's ideal types, guiding and delimiting the scholar's thought, and act as

tools, against which empirical observations can be interrogated or, as Dodd (2014: 317) calls it, against a "conceptual utopia." In calling money a fiction, Simmel suggests that the idea at the foundation of its use in society never corresponds to what is encountered in the empirical forms used. He means that money is a generic fiction. All observed manifestations thereof are variations on an idealised form that he sometimes refers to as perfect money. In this, abstract, sense, Simmel does not consider money a real entity, but rather an idea. Thus, it presents a conceptual reference against which other forms of money manifest as combinations of quantitative and qualitative types (Dodd 2014: 317).

Conceptually correct money is disconnected from all substantial values, and this refers not only to money's inherent value, but also to the essential fiction that its monetary value remains unaltered. So, perfection is a property of stable money. But here, Simmel was thinking further than merely low inflation. Stable money was also that which did not disrupt the structure of the society wherein it circulated. Furthermore, Simmel saw further than the conventional notion of neutral money associated with classical economics, but rather envisaged a state wherein prices represent the specific relationship an individual has to his or her society (Dodd 2014: 318).

His argument is based on an equation between the quantity of money circulating within an economy and the quantity of commodities on sale, in total. Prices are a numerical expression of the proportion between these two. His interpretations are coherent with a relationist value theory, wherein no one thing has value independently, but only in relation to other things. So, in Simmel's analysis, stable money means two things. In the first instance, it requires all prices to be consistently relative to one another, and that is even when the overall sums of commodities and money fluctuate. Any alteration in the money supply would have to affect all prices equally, and if the money supply doubles, so should all prices. Once this condition has been met, money can be regarded as stable, and at least conceptually correct. Dodd (2014: 318) also points out that if this looks a lot like the quantity theory of money embedded in the sixteenth-century sensibility, it is because such thought, traditionally attributed to Jean Bodin, was the prevailing orthodoxy in Simmel's era.

Simmel, however, put forward another interpretation of the notion of stable money, whereby any variations in the monetary supply would have an effect on not only all prices, but on all persons in the same way. The premise of this argument is founded on the idea that even a

proportionately distributed monetary supply would incur an unequal effect across the society according to wealth. This is a common concern throughout monetary theory literature. Keynes, for example, in 1923, discussed the notion that inflation, and not the monetary supply, affects different groups within a population according to their wealth. In "*The Social Consequences of Change in the Value of Money*" (Keynes 1972 [1923]: 80) he pointed out that "… when the value of money changes, it does not change equally for all persons". It was this line of reasoning that led Keynes to consider inflation as "unjust", while deflation he saw as "expedient" (Keynes 1972 [1923]: 103). Ludwig Von Mises agreed. In "*Human Action: A Treatise on Economics*" (1998 [1949]), he observed that money could never be stable or neutral in purchasing power, much like government plans regarding the determination of the quantity of money, which would never be fair or impartial to every member of a society (Von Mises 1998 [1949]: 419). So, the fact that Simmel considers the problem of perfect, or conceptually correct, money in this way is worth exploring, as it represents a sociological interpretation to the notion of neutral money. Moreover, this interpretation is critical to understanding the utopian thread running through Simmel's analysis (Dodd 2014: 317).

Simmel also expanded the argument, claiming that an ideal social order is a prerequisite for stable money (Simmel 2004 [1907]: 191). Much of the secondary literature has overlooked this point, but G. H. Mead's (1994) assessment of the first edition did pick up that to Simmel, money would ideally have no inherent value and would not need to possess it, as it would only function as a manifestation of the relation between the values of goods and commodities, and this would be expressible as a fraction. Money in this idealisation is purely symbolic. Furthermore, any failure to attain this ideal form is the result of the failure of the community wherein it operates to make an equivalence between its goods and the total sum perfect or complete. Furthermore, the failure of the community to achieve this ideal results in incidences of uncertainty, wherein individuals instinctively revert to an equation between the commodity or good and an inherently valuable thing. Mead (1994: 146) concluded that since money still retains independent value, to some degree, this was indicative of human social failure to completely arrive at the ideal of economic organisation. What initially seems like a narrow, technical argument regarding relative prices, is embedded with a strong ethical connotation, indicating that such orders are dependent on the community's ability to make the equation between commodities and money perfect or complete. It is worth pointing out that Simmel's idea of social order here is not dependent of the eradication of inequality, but rather its stabilisation via money (Dodd 2014: 319). This, however, raises the question of

what kind of social order might be resistant to changes in monetary supply. Or put simply, could there be a perfect society, corroborative of Simmel's conception of perfect money?

1.2.7.2. The "perfect society"

Incidentally, Simmel expanded on his notion of the perfect society in his opening chapter of "*Sociology: Inquiries into the construction of social forms*" (Simmel 2009), where he contemplated how society is possible. He advocated a Kantian conception of society as a progression or process that is created through the synthesising actions of its members. Simmel concluded that these activities involved a sequence of fictions (approximating his pure conception of money) (Dodd 2014: 320). Here, Simmel is imagining a mode of social incorporation whereby every individual locates their distinctive position in society, within the whole, which he equates to their vocation. This position, whereby individual qualities encounter their fullest societal recognition, is concurrently the condition for self-realisation. Critically, Simmel is implying that the qualities which make individuals unique and, consequentially, distinctive are not obstructions to social harmony, but rather, the preconditions to harmonious social co-existence (Pyyhtinen 2010 96). Here, Simmel is further distinguishing between "… the *perfect* society and the perfect *society* …" (Simmel 2009: 51), which introduces two further notions of perfection, namely conceptual and ethical perfection (Dodd 2014: 320).

Simmel equates ethical perfection (the *perfect* society) with an absolute form of equality where all individuals are treated identically. He (Simmel 2004 [1907]: 163, 336, 346) expands on this absolute equality by also referring to communistic equality and complete equality. However, the conceptual form (the perfect *society*) of equality that he associates with perfection is, contrastingly, conceptual. Thus, Simmel (2009 [1907]: 49) contended that society is "… a construct of unlike parts" and is based on individual variances. To make this argument, Simmel (2004 [1907]: 362) invoked both absolute and relative forms of equality, respectively, by comparison to the earlier individualism, or what he termed, "… the viewpoint of Christianity, the Enlightenment of the eighteenth century …" (Simmel 2004 [1907]: 362) (including Rousseau and Kant), as well as ethical socialism which he associates with the post-romantic nineteenth century. The latter assumes that humans possess value

because they are human beings, and that the absolute value for all humans must be equal, while the former places an emphasis on individuality and humans' "qualitative peculiarities" (Simmel 2004 [1907]: 362). Because of their differing personal natures, destinies and life contents, individuals are necessarily unequal (Simmel 2009: 49) and such a form of equality manifesting in a society would represent a form of conceptual perfection, or a perfect societal structure compromised of unequal parts. In this view, equality is more synonymous with equivalence, and he thus employs a relative and not an absolute conceptual approach to equality (Dodd 2014: 321).

This distinction between absolute and relative equality draws from an earlier work, "*Sociological Aesthetics*" (Simmel 1968), wherein he distinguished between political and aesthetic forms of equality, the difference hinging on the conception of symmetry. In the aesthetic sense, symmetry provides meaning to everything from a single perspective that balances the parts and the whole against one another in an even arrangement around a centre (Simmel 1968: 71). Such an arrangement may be aesthetically pleasing, but Simmel considered it politically unsatisfying. To Simmel, it was one thing to pursue symmetry in the arts; however, he thought that symmetry would favour tyranny when applied to society (Simmel 1968: 73). Simmel made a similar claim in "*The Philosophy of Money*" (2004 [1907]), contending that both despotism and socialism share a proclivity toward symmetrical constructions of society that induce strong centralisations therein, all of which reduces the distinctiveness of its elements and the abnormality of their forms, as well as the relationships to the symmetrical whole. Simmel pointed out that, historically, this was the rational way of administering and subjugating objects and people under a single-state system (Dodd 2014: 322).

Contrastingly, the conceptual freedom Simmel envisions is an asymmetrically structured arrangement that, he concedes, appears disorganised and aesthetically displeasing or irregular. To Simmel, however, political asymmetry highlights the inner life of the state, or the lives of its component individuals to their most harmonic forms, and typical expressions, permitting broader individual rights, greater latitude for the far-reaching and free relations of each element (Simmel 1968: 74-75). The despotic compulsion, on the other hand, culminated in symmetrical structures with constituent elements of uniformity that avoided any form of improvisation (Simmel 2004 [1907]: 338).

Simmel (2004 [1907]: 296) pointed out that money had an intrinsic tendency to make individuals more reliant on the accomplishments of others, and less dependent on the characters behind these accomplishments. This led Simmel to a discussion of the general themes behind the history of modern discourse, which is where scholars encounter his affinities with Nietzsche. These ideas have fertilized the works of ensuing theorists associated with the Frankfurt School, especially relating to the problems associated with reconciling human aspirations for individuality and excellence, concepts which are nurtured by economic liberalism with the conflating propensity of modern society and the mature monetary economy toward levelling. If the inclination of money to render societal relations functional is carried to its logical extremes, Simmel thought it would inspire a form of life that bore great sympathy for socialism, or at least state socialism in an extreme form (Simmel 2004 [1907]: 296). He noted that such forms of socialism transform every action from one displaying social importance, to one where unique action merely becomes an objective function. This constructs a society where the order of functions is superior to the psychological reality of man (Simmel 2004 [1907]: 297). Simmel was clearly sympathetic to Nietzsche's emphasis of the idiosyncratic virtues of the individual, and was drawn Nietzsche's desire to not dissolve the individual into the group (Dodd 2014: 323). His statements regarding the inability of social symmetry to achieve relative equity can be seen as a critique of socialism; however, this position should also take account of Simmel's conclusions about money's formal affinities with socialism.

Here, Simmel (2004 [1907]: 296) pointed out that while money had played an important role in establishing the individualistic society in England through the development of its financial system, it was also an important precursor to more socialistic forms of society (Simmel 2004 [1907]: 495). Money is said to nurture socialism in two ways; firstly, certain monetary conditions present an ideal form or blueprint for the kind of social order that socialist thought attempts to create, and secondly, through a dialectical progression that "… turns liberalism into its negation" (Simmel 2004 [1907]: 495). Dodd (2014: 323) illustrates this, using Simmel's argument regarding pure monetary associations. Such associations can be seen as liberal orders where the only interests considered are those of its members. These arrangements are freely entered into and rely on the complete separation of the functional and the personal, or the two parts of the individual that socialism tends to conflate. Furthermore, such a conceptual separation facilitates the amalgamation of people who, because of various differences, whether social, spatial or personal, could not easily be reconciled with any other

kind of group formation. Monetary associations are appealing to Simmel politically (2004 [1907]: 344) because they cultivate individual freedoms, while allowing the individual to commune with others, safe in the knowledge that personal freedoms need not be sacrificed. But, like liberalism, which becomes its own contradiction when taken too far, monetary associations can facilitate the conditions for individuals to feel self-estranged via the generation of unpredictability and irregularity (Dodd 2014: 324). This goes some way to explain Simmel's assertion that the deeper are the connections between liberalism and the money economy, the greater are the amounts of disorder, instability and dissatisfaction generated in the social whole. Monetary associations without a counterpoint destroy everything that they, in moderation, nurture, much like Simmel's lamentation of the modern family having degenerated into nothing more than a vehicle for the organisation of inheritance (2004 [1907]: 345). Here, Simmel is pointing out that the quest for individual distinction is emasculated by the socialist labour division and by the liberal monetary association in their extreme forms. The socialist division of labour destroys and denies the individual personality, while the liberal monetary association cuts the individual adrift. Nevertheless, the outcomes are the same: excessively rational orders, be they socialist or liberal.

1.2.7.3 Monetary value: Simmel's critique of just price

Simmel took his arguments regarding liberalism and socialism further in his critique of just pricing. The just price is a notion of ethics in economics advocated by Thomas Aquinas, based on his argument that no one should be able to sell what is not hers or his. The principle is elucidated in Thompson's (1971: 78-79) example of eighteenth-century riots against merchants in England after they raised the grain prices to exploit shortages. Contemporarily, the principle manifests in numerous forms like minimum wage, price gouging, price regulation, anti-dumping laws and trade tariffs. Relatedly, in the financial sector, efforts to control interest rates, like capping payday loans, can be considered as the same principle. In Aquinas' view, the just price was that which was objectively fair; it was both real and fixed. Simmel, however, thought it merely a caricature of the substantialist-absolutist world view that emanated from the middle ages and assumed an objective relationship between an object and its price (Dodd 2014: 325). Far from being in any way objective, Simmel considered

such a price "… subjective in the worst sense …" (2004 [1907]: 317) and resultantly, completely random. This form of "inadequate valuation" (Simmel 2004 [1907]: 317) ultimately resulted in levelling, which as noted, he equated with extreme socialism. Aquinas's suggestion is thus in contrast to Simmel's rendering of society that livens concretely via the mélange of individual interests and preferences through exchange. These arguments, in turn, bring up broader theoretical issues regarding value, more specifically, the prior existence of some or other specific element of value preceding exchange. And here, too, Simmel's philosophy came equipped with some novel insights into this question.

As noted, Simmel's "*Philosophy of Money*" (2004 [1907]) was not concerned with the actual or empirical origins of money as much as it applied itself to the conditions for its possibility. This philosophical investigation simply asks, as he did of society in "*Soziologie*", "how is money possible?" (Dodd 2014: 27). Simmel's description of the philosophical and social prerequisites for money's existence introduces an analysis of the cultural and social effects of a mature money economy, and should rightly be considered an important and influential theory (Dodd 2014: 27).

Kant's proposition, that humans make use of universal frameworks or categories of understanding to synthesise raw sense impressions and make sense of or experience objects as part of a coherent world, is applied by Simmel to the logic of economic value. Indeed, this logic underpins his theory of money. Philosophically, Simmel considered value to be the conceptual counterpart to being (Simmel 2004 [1907]: 60; Dodd 2014: 27). Just as in Kant's conception where the natural world does not present itself to humans in a given form, predetermined in advance, Simmel's idea of the economic world was not one structured in advance with ranked categories of things more or less in accordance with value awaiting human discovery. Just as the appearance of coherence in the world of being in Kant, Simmel's emergence of a reasoned world of value is the result of a synthesis; it occurs via exchange. Human beings enter into relations of exchange because they want things, and this desire is demand, or as he put it, "Just as the world of being is my representation, so the world of value is my demand …" (Simmel 2004 [1907]: 69). Simmel did not think demand predicted exchange, but rather occurred through a process he called "mutual sacrifice" (Dodd 2014: 27). Here, the synthesis that facilitates economic value, and hence made money possible, is not mental but social or relational.

Simmel's investigation into the conditions for the existence of money begins with the dyad. This is the relationship between two parties, both owners of objects and each of whom wants or requires what the other possesses. Such a mutual form of interest constitutes the basis of any exchange, and Simmel referred to these as mutual sacrifice or acts of reciprocal surrender. Even solitary actions, like going for a walk, involve sacrifice as one has to sacrifice another action to do so, like, say, doing the laundry or watching television. In this way, sacrifice is true of all forms of exchange or value, be it religious, aesthetic, monetary or economic. In order to gain something, something else must be simultaneously lost (Simmel 2004 [1907]: 82-90). Sacrifices are also made in order to overcome the distance humans experience in relation to the objects they need or desire; this distance is not an inherent quality in the object itself, rather, the distance experienced is a result of desiring the object. Humans value objects because they resist our urges and cravings to possess them, not the other way around. In this way, value cannot be ready made but it rather accumulates in the object desired because of the sacrifice involved in acquisition thereof via exchange (Simmel 2004 [1907]: 84). Similarly, because mutual sacrifice is involved in exchange, value attains a suprasubjective status (Dodd 2014: 28).

Simmel's conception of value also contends that it is intimately connected with sociation. In the same way that society is facilitated by the acts of humans being social, so is value. It is not a property belonging to an object like size, taste, colour, smell or length. Rather, it is a third category that mediates between humans and objects (Simmel 2004 [1907]: 68). So, exchange and valuation are intersubjective processes despite value – as a result of this relationship, assuming the appearance of an objective property of things. When two or more desired objects are compared, the imminence of human desire translates beyond dualisms of subject and object into a quantifiable something (Simmel 2004 [1907]: 66). Quantification facilitates the comparison and measurement of objects against one another, generating value in a particular conception as an inherent, objective quality (Simmel 2004 [1907]: 78). Once quantification has occurred, objects appear as independent values that, resistant to humans' desires for possession, assume a form of law like necessity or craving. Here, objects command independent power, demanding sacrifices from humans in order to attain acquisition. This interplay between subjects, objects and subjects, and objects themselves, is what generates money (Dodd 2014: 28). Quantification is fundamental to this process, as it is only through a comparison of demands, as occurs in exchange, that definitive values can be assigned to objects (Simmel 2004 [1907]: 90). Thus, value is a measure of the distance

between a subject and the object desired, or a degree of the extent which humans must overcome difficulties and obstructions in the acquisition of objects (Simmel 2004 [1907]: 62-64). Money quantifies said distance, and for that reason, Simmel considered value and price to be almost identical. Simmel thought value to be the "undistinguished imitator" (Simmel 2004 [1907]: 94) of price, and the monetary price of an object to be simply the external manifestation of the sacrifice offered in exchange for that object, or a quantitative objectification thereof, which money represents in its most abstract form (Dodd 2014: 29).

This focus on the significance of subjective desire in the materialisation of value has resulted in some scholarly comparisons with the neoclassical theory of marginal utility, but Simmel's philosophy was not merely investigating how prices are formed through exchange, rather, he sought an understanding of how money orders a world wherein values and objects are perpetually in a state of flux. This existential unrest was chief among Simmel's fascinations with money, and the reason he penned a philosophical investigation in the first place. His suggestion was that as a utensil for mutual valuation, money, was representative of the purest embodiment of the formula for all 'being' (Simmel 2004 [1907]: 128-129). This again refers to relationism, which conceives of 'meaning' as being generated only via mutual relations which determine 'being'. Seen this way, money provided Simmel with the perfect tool for investigating the epistemological implications of relationism. Money, then, represented a generic idea of value. It could substitute any specific or concrete value in an exchange because of its abstract and objective character (Dodd 2014: 29).

So, in Simmel's outlook, value and price are more or less identical and are produced by the amalgamation of subjective valuations that are not objective or fixed, but in a state of fluctuation. Value occurs from the continuous interplay of exchange relations. Any price held to be an objective representation cannot be, in the Platonic sense, "just" which belongs to a theory of the pre-modern world in Simmel's view, like labour money (Dodd 2014: 326). Here, the meticulous scholar arrives at a crucial juncture in Simmel's argument. In contrast to the just theory of pricing, Simmel proposed a system of pricing that was both analytically coherent with the relationist theory of value, and ethically defensible, embracing the idea of individual peculiarity. Such a framework, he proposed, ought to be consequent of an unequal price. Such a price accounted for the overall state of the economy, fluctuations in productivity of people and objects, and the multiple factors of demand and supply (Simmel 2004 [1907]: 317). This theoretical notion of perfect money correlates with Simmel's

conception of the perfect society. The conceptually correct price is an unequal one, through which the connection between individual and society expresses in money, and this is what Simmel is searching for in his ideal type of society. Distinctive circumstances are important objective facts for the execution of exchange on an individual basis, but ultimately, Simmel (2004 [1907]: 317) noted in principle that this would not find an expression in price formation.

Simmel's society of unlike parts inverts the logic of equal prices where the poor pay proportionately more for commodities and services than the wealthy. Unequal pricing would result in the poor paying proportionally less. The equal or just price merely acted as a tax on the poor, reinforcing of the idea that wealth is a divine entitlement (Dodd 2014: 327). By factoring into price more than the standard production, but also the unique individual circumstances of consumers that Simmel infers "at every sale" (2004 [1907]: 319), unequal pricing would express all circumstances that factor into every exchange. Additionally, the new or unequal price would not be any less objective than the equal price, it would only incorporate individual circumstance into its constituent elements. Here, everything thus far considered subjective would have to become an objective-legal element of price formation (Simmel 2004 [1907]: 319). Thus, consumption and production are united to generate the conceptually correct or perfect, ideal price. This correlates with a philosophical worldview which views all original and objective data as a result of subjective formations, and his suggestion is that unequal pricing could be an ideal social structure facilitated by the idea of conceptually correct or perfect money. Theoretically, it is as if the principle of relationism of value or the irreducibility to one value that is primary like labour were being preserved by money as a primary form. This irreducibility is similar to a form of conceptual utopia, *urphänomen*, that Simmel located in Goethe which embraces flux and diversity, facilitating the acceptable recognition and efficacy of each individual impediment via the "… equalisation of the greatest diversity …" where "… all specific forms must first be returned to the common primary element in order to secure the complete freedom for individual reorganisation" (Simmel 2004 [1907]: 319). Though logically complete and admittedly utopian, unequal pricing was, in Simmel's opinion, rationally plausible (Dodd 2014: 328).

Despite demonstration that an unequal pricing system could be philosophically coherent with the notion of perfect money, Simmel was not very clear as to how such a system would function practically, nor if it even could. He pointed out some empirical manifestations of

unequal pricing, like doctors' fees that are structured according to patients' incomes or citizens who paid less for government services which functioned on the same principle. Similarly, Dodd (2014: 328) points out modern expressions of variable pricing as including airline tickets or bulk buying. These examples fall short of being unequal, as variable pricing schemes tend to be geared solely toward conditions of supply in the case of airline ticket pricing or, as with bulk pricing, actually work against consumers on the lower-income side of the spectrum. Some unequal forms of pricing do exist that are based on a more "progressive rationale" (Dodd 2014: 329), like tiered membership fees for professional association and union memberships. Interestingly, this runs contrary to Simmel's prediction that, within groupings that appear like guilds, socialism would prosper as a counterbalance to economic liberalism. In any case, none of these examples fulfil Simmel's ideas about perfect form, and even with contemporary computing and information-processing power, they are largely unlikely to become reality in the face of the information that such systems depend on to compile statistics and the high prevalence of evasion, a common occurrence with income tax. Interestingly, such a system actually closely resembles the mechanical visions of perfectly rational, centrally coordinated pricing systems that were a prominent feature of the socialist calculation debates (Dodd 2014: 329).

Simmel's suggestion is that unequal pricing would be endowed with all the benefits of socialism without any of its deficiencies; indeed, he believed that money could, via unequal pricing, realise the medium he desired between liberalism and socialism. It similarly implies a merging of ideas running concurrent, the ethical idea of unequal pricing alongside the conceptual fiction that is perfect money, corresponding to his own fusion when he contemplates the two types of perfect society (Dodd 2014: 329).

Simmel's idea of perfect money was entrenched in his personal anxieties about the uncertain fate of individuals in a mature money economy. His only rational means for safeguarding the interests and endeavouring of individuals, both qualitative and quantitative, in accordance with their objectified social existence was unequal price. This form of equality is relative, one price for each. This is despite his insistence throughout "*The Philosophy of Money*" (Simmel 2004 [1907]) that, ultimately, there cannot be a single, feasible resolution to the conundrum that is perfect money (Dodd 2014: 329-330).

1.2.8 Value as an institution

Much like Simmel, Andre Orléan refuses to accept both orthodox and heterodox theories of value, contending that neither is representative of reality (Orléan 2011: 53; Orléan 2014: 35). By 'theory of value', he means that marginalist theory's use of utility to determine value and the labour theory of value which have both exerted influence on the classical and heterodox schools of economic thought, respectively. These two theories are often presented as oppositional to one another, but Orléan claims that they are both conceptualising value in the same, incorrect manner. Both theories hypothesise by utilising a common methodology. They both attempt an objective measurement via a pre-determined scale, and consequentially, conceive the ontology of value, or its philosophy of being as a substance or an essence. Here, Orléan means that both labour and utility theories attribute the existence of value to some universal force, pre-existing to exchange, via a methodology of objective theoretical deduction. So, a commodity's value can be known before a transaction and resultantly, the conception of value ensures the market relation is pre-determined, while social relations are left disregarded (Orléan 2011: 22-23; Orléan 2014: 12). Both sides of the ideological divide thus believe in the same fundamental philosophy of 'being' for value, that is, value is substance or essence based. However, Orléan's (2011: 53; 2014: 35) issue of contention, though not critical of the logicality of substance value, is that neither of the substance or essence theories of value satisfactorily describe economic facts on the ground. Specifically, he notes that both omit fundamental elements of such economic facts, chief among them, the role and nature of monetary transactions. Similarly, he notes (2014: 12) that both theories share an obsession with barter, a common neglect of money, a desire to explain economic behaviour in terms of grand, general theories, and a tendency to neglect the social basis of exchange. Contrastingly, in Orléan's opinion, value is an institution, and a social one at that, although this is not elaborated on beyond references to institutional factors in Marx and an overall view of institutions in line with Durkheim (Slade-Caffarel 2013: 1-2).

Orléan employs Veblen's theory of conspicuous consumption to contest Menger, Jevons and Léon Walrus' utility theory of value, which grounds the determination of utility in the allegedly objective criterion of scarcity (Orléan 2014: 92-97). Contrastingly, Veblen's theory grounds the desire for commodities to a form of pecuniary emulation. The implication of this is that a person's standing in a social hierarchy is demonstrated or determined by their consumption, and thus, in order to advance upward in this hierarchical structure, that

individual has to mimic the consumptive behaviour of the social class above themselves (Veblen 1998 [1899]: 103-104). Here, the want for commodities is linked with the aspiration for social advancement, and Orléan's argument is simply that if this mimicry or mimetic origin exists in the desire for commodities, then the exclusive determination of utility via scarcity is then refuted (Slade-Caffarel 2013:14-15). Here, the analysis moves to Orléan's theory of money, specifically his earlier works on money, which considers this kind of mimetic origin, or mimicry, as a form of economic motive, named 'mimetic desire'. This fundamental assumption drives his thesis. A market economy is fundamentally one founded on money (Orléan 2011: 148; Orléan 2014: 107-109) and a place where market actors endeavour to acquire money because it is the unrivalled instrument of market power, the thing that facilitates access to all other goods, commodities and services. Thus, the desire for money is the overpowering desire to which all others are subordinate (Orléan 2014: 110-111) or the "master desire" (Slade-Caffarel 2013: 15). Money's existence and maintained use is thus purely in support of this desire; hence, modern capitalist market relations are a result of an irrational aspiration.

This leads Orléan to 'value', concluding that if exchange is not the result of fundamental commonalities between commodities but actually resultant of the universal equivalent, or money, which facilitates the conditions for exchange, there would no longer be the need for a theory of value ascribing the presence of value to a pre-existing state or scale. Value and price are, at bottom, the same thing for Orléan (2011: 169; 2014: 124) and value is objective in the sense that its stable identity is ensured by the circulation of money in an economy. In Orléan's opinion, understanding the implications of the objectivity of value forces the astute scholar to consider a system of exchange in its totality or, as he puts it, as a social institution (Orléan 2014: 125). He considers it implausible that pre-existing scales determine value, be they based on labour or utility, when clearly, they result from market relation and the multiple interconnected factors involved in the process of valuation. Prior to an exchange, however, it is similarly unrealistic to attempt to derive the value of commodities on the basis of only one contributing factor, whatever that may be (Orléan 2011: 12). Orléan also applies this economic argument to the social realm.

The reason for Orléan's suspicion toward this methodology structures his argument against such measures of value. On the one hand, he asserts the illusion of a substance or essence ontology for the social sciences (or that substance does not determine economic value), while

conversely pointing out on the other hand that social reality is itself of an institutional ontology (or market value has to be understood as the result of market relation). Within the general heterodoxy of economic thought, Orléan's argument is original because it points out the commonality between orthodox and heterodox economic theories and a common conception and method of investigation into the ontology of value. This is a result of both utilising a common methodology and searching for a scale whereby relative values of commodities may be determined prior to market exchange. On this basis, Orléan believes that separating schools of thought between orthodox and heterodox is no longer a relevant conception. Rather, he advocates a classification that categorises approaches as either quantitative, defined as those founded on the essence or substance philosophy of 'being' of value and institutional economics, defined as approaches that conceive of value as the product of social relations, or that are said to have an institutional philosophy of 'being' (Slade-Caffarel 2013: 16-17).

Orléan's illustration of the methodology of quantitative economics deals with Walrus' and Marx's theories of value. Their common method is to look for an objective scale to measure the values of commodities, and whether these scales are based on utility or labour is irrelevant, because both share the fundamentally same conception whereby theorisation on exchange requires further analysis beyond monetary transactions in order to reveal the existence of a logically present magnitude that organises and, importantly, exists prior to transactions taking place. If value can be computed for all commodities without the need to reference the exchange process, then economic and market value should no longer be restricted to the domain of capitalist market relations because value is transhistorical, and exists universally. In such a view, the social structure would be one of substance or essence, and Orléan (2011: 24; 2014:13-14) observes that economics views the world from an ideological perspective wherein the law of value establishes the relationships of economic exchange, which is a false, constructed reality.

Walrus' utility theory bases value on the objective criterion of scarcity, attempting to indicate that the relative scarcities of two commodities will equalise in equilibrium to their relative values. Marx does the same in searching for the one element that otherwise heterogeneous goods have in common, concluding that the commonality can only be labour, which he must then render objective via his concept of socially necessary labour. Resultantly, relative amounts of socially necessary labour are depicted as equal in status to the relative values of

commodities (Orléan 2011: 25-27; 2014: 13-15). But in explaining the social reality and nature of market economies, Orléan presents value as an institution via Marx's theory of commodity fetishism. Here, Orléan argues that Marx displays an understanding of reality that is consistent with an institutional ontology, where value is socio-historically specific, and is constructed socially. Value may appear objective, but Marx argues that it is the product of specific social relations that are equally socio-historically specific. Thus, Orléan (2011: 41-47; 2014: 25-34) points out Marx's belief, or at least understanding, of an institutional philosophy of being, though his analysis implies a substance value hypothesis, a clearly contradictory position that Orléan attributes all of Marx's other contradictions to. On this evidence, Orléan rejects all substance or essence value hypotheses in order for an institutional ontology to be respected for consistency. His project, therefore, is a restoration of Marx by making his theory broadly compatible with an institutional philosophy of being (Slade-Caffarel 2013: 17-18).

The appeal of Orléan's ideas is located in his alliance with most of the theories and theorists presented thus far on the notion that value is not necessarily a pre-existent property to an exchange, but rather a socially constructed phenomenon, which is a position broadly consistent with the idea that money's origins are more than just myths about barter or spontaneous order. Similarly, his invocation of Veblen to refute Walrus echoes "old" institutional economics (OIE) scholars calls for more realistic psychological basis for economic theorisation, while being similarly evocative of Simmel's reflections on value, searching for alternative or third options for theorisation beyond the inconsistent and false dichotomies presented by the two traditionally dominant paradigms of theorisation

1.2.9 Theories of monetary creation

Werner (2014: 2) observes that three differing perspectives exist on the monetary creation process and that each theory has, in turn, dominated about a third of the twentieth century. All three theories are founded on differing perspectives of how banking and money work, and each has policy-altering implications. The dispute about which is correct has never been settled, leading to comical results, as when Bank of England staff went on record as supporting each simultaneously, despite their general incompatibility and mutually exclusive nature (Werner 2014: 2). However, it is important to determine the correct one, as the effects are important for banking regulation that is appropriately designed to avoid crisis.

Contemporarily, the approach to banking regulation that has applied since Basel I is established on an interpretation of the theory that sides with financial intermediation. But if any of the other two theories of banking hold true, this policy prescription cannot bring about financial stability. Indeed, Werner (2014: 2) indicates that the capital-adequacy approach to regulation adopted by the Basel Committee on Banking Supervision (BCBS), and evidenced in Basel I and Basel II, has thus far not seen any successes in averting major banking crises. If financial mediation is not the correct theory from which to prescribe policy, the ability of Basel III and other national efforts at better regulation would be tantamount to meaningless.

1.2.9.1 The credit creation theory

Early proponents of the idea that non-issuing banks are imbued with the individual power to create credit and money from nothing were predominantly British and German. The credit creation theory thus begins with Henry Dunning Macleod, whose epic "*The Theory and Practice of Banking*" (1866) unambiguously argued that individual banks create money from nothing each time they carry out the operation known as "lending" (Macleod 1866: 310). "A bank is therefore not an office for 'borrowing' and 'lending' money, but it is a manufactory of credit." (Macleod 1897: 594). Credit creation theory thus contends that banks invent credit in the form of deposits.

Additionally, they are not limited in how much of this credit they might create. Wicksell (1907: 214) noted that in their lending business, banks were neither limited by their own capital reserves, nor any reserve limitation whatsoever. In concentrating all payments in their hands as intermediaries, they themselves create all the money that the system requires. Hartley Withers, editor of *The Economist* between 1916 and 1921, agreed. He similarly saw few limitations on the amount of money banks could generate (Werner 2014: 3). Withers also observed that in reality, the money that community members store in banks is actually just a loan of bookkeeping credits to these individuals by its bankers (Withers 1947 [1909]: 57). Withers (1918 [1920]: 45) pointed out that since banks manufacture currency, their level of influence in the economic world was greater, since it was then already accepted that the volume of currency generated had important implications for prices, arising from the quantity theory of money. This, in his opinion (Withers 1918 [1920]: 54), imparted a great responsibility on bankers since they manufactured money, and this affected not only

customers and shareholders, but also the general level of prices. Withers (1918 [1920]: 40) argued that the sovereign privilege to create currency had been effectively privatised and handed over to commercial banks. In Germany, Schumpeter echoed this theoretical sentiment in an environment fertile with credit theory discourse like that of Albert Hahn, scion of a banking dynasty from Frankfurt. Like Macleod, Hahn was a lawyer by training and was not only familiar with Macleod, whom he cited, but also probably conscious of the actual practice of monetary creation from experience in his family business. Hahn observed that deposits exist because of the prior extension of credit, inferring that the primary business of banks was, contrary to the literature, not liabilities, especially depositor protection, but rather the individual asset transactions of banks, which must have preceded transactions and which, in turn, facilitate the possibility of the liability business functions of banks. This liability business was thus nothing more than a reflex of prior credit extension (Werner 2014: 5).

Hahn probably contributed the most to popularising the credit creation theory in Germany, and is similarly credited with the theory's longevity in German discourse, well into the post-war era. Globally, the credit creation theory was the dominant banking narrative at the end of the nineteenth century and beginning of the twentieth century. Even Keynes initially supported this view (Werner 2014: 5). Beyond his own inference thereof (Keynes 1924: 178-179), Keynes' contributions to the Macmillan Committee (1931: 34) clearly assert his support for the position that every bank has the ability to create credit and, in turn, concerning the banking system, such credit and deposit creation would influence demand in the formulation of prices, a sentiment that Schumpeter had expressed in 1912 (Werner 2014: 5). Keynes noted that if banks pursued more-relaxed credit policies, lending more freely to business, then profits, wages and additional spending would be generated (Macmillan Committee 1931: 13). The report also noted (Macmillan Committee 1931:99), concerning whether the demand or supply side of this credit is principal, that extension or reduction of credit from the banking system influenced the ease of new investment and volume and profitability of businesses, which would in time react to the amount of accommodation that industry needed from the banking sector, rendering what began as an alternation in credit supply ending up disguised as an alternation in the demand for credit. Thus, money is considered endogenous to credit when a loan is extended, but exogenous in terms of the loan applications, meaning that the power of the banking system to expand or contract the volume of bank money in normal circumstances, for example, effects the volume of active investment by expanding the volume and diminishing the cost of bank credit. It also implied that the power of the banking

system to expand or contract the active deployment of money in enterprises as irrefutable (Macmillan Committee 1931: 102). The Committee also noted that while bank credit could be influenced by the Bank of England, credit was also exogenous in this sense. As noted, the credit creation theory was popular until the post-war reconstruction era, when economists who supported the theory in principle, downplayed its relevance. This in turn led to the generation of the modern fractional reserve theory (Werner 2014: 6).

1.2.9.2 The fractional reserve theory of banking

At the end of World War One, only a minority of economists contended that the credit creation theory was mistaken. These included the likes of Phillips (1920: 72) and Alfred Marshall, who testified before a government committee that he considered the functions of banks to be collecting deposits and making loans on these (Werner 2014: 6). From this, he expected to attain a geometrical progression which would effectually create three times the money if each bank leant out a third of its reserves (Yohe 1995: 530). This view contradicted Macleod and although only a peripheral perspective at the time, it grew in influence and was assisted, in no small part, by publications like Chester A. Phillips' "*Bank Credit*" (1920). Phillips observed the importance of the distinction between the theoretical possibility of banks individually manufacturing money via the lending of excess reserves and cash, and the system as a whole being able to perform this function (Werner 2014: 6). To Phillips (1920: 40), individual banks did not create money or credit, rather, the collective banking system achieved this by fragmenting new reserves and allocating them among banks within the system. Interestingly, the role of banks was disputed in the decade preceding the Great Depression, with increasing amounts of criticism for the credit creation theory. Similarly, an increasing amount of academic and expert opinion was shifting (Werner 2014: 6).

Sir Dennis Holme Robinson (1926 [1949]: 77) expounded the role of reserve holdings and the process of determining banks' conduct, based on their penchant to hold cash combined with the number of reserves provided by the central bank, and considered this mechanism predetermined, as postulated by the money multiplier in a fractional reserve model. Keynes (1976 [1930]: 218) also supported a fundamental element of fractional reserve theory, that banks collect deposits and store parts thereof with the central bank, or conversely, could draw from their reserves at the central bank for lending in the non-banking segment of the

economy. Keynes also contended that new loans-based deposits would be dependent on the connected banks' central bank reserve balance, a notion sometimes supported in contemporary central banking (Werner 2014: 7).

Fractional reserve theory became dominant in the 1950s and 1960s, and also became the go-to textbook description for the functioning of the banking and monetary system. The finest, and most influential example, is that of Samuelson (1948). The first edition was clear in its assertion that fractional reserve theory performs the monetary creation process, and argued that bankers could not invest funds they did not have, thus needing to gather funds before they could extend loans (Samuelson 1948: 324). He similarly noted that the money a bank used to make loans would leave the bank, and it could therefore not create credit out of nothing (Samuelson 1948: 325-326). However, he observed that the banking system could collectively achieve what each individual bank was not able to, that is, the creation of money (Samuelson 1948: 324).

Samuelson explained this according to the consistent practice of one bank's deposits going out as loans to another bank, thereby becoming deposits in a chain of deposit creation only limited by a reserve requirement of twenty percent, implying a multiplier of five times. This "multiple deposit expansion" (Samuelson & Nordhaus 1995: 493) has been retained along with the notion of banks being able to do collectively what individual banks cannot, with a lower capital reserve requirement. However, Werner (2014: 8) is keen to point out that much of what has been retained in modernity of the fractional reserve theory devotes far less attention to dealing with credit creation, insisting that central bank reserves are created and utilised by individual banks as inputs that are then converted into larger amounts of bank money (Samuelson & Nordhaus 1995: 490). Individual banks are pure intermediaries, and limited in their abilities (Samuelson & Nordhaus 1995: 496), while bank deposit money is provided systematically by the collective financial system in an abstract procedure that individual banks have little influence over (Samuelson & Nordhaus 1995: 494).

This conception then envisages the monetary creation process as commencing with the public and with funds moving between the public, private banks and central banks, free from obstruction. Each bank is a financial intermediary devoid of individual power but, in collective aggregate because of fractional reserve banking, money is multiplied (or created) systemically as each bank grants a loan after the receipt of new reserves. Loans on new

reserves can only be made once a fraction is deposited with the central bank and the bank can only loan to the amount of the excess reserves it has with the central bank (Werner 2014: 8). The popular textbooks agree. Stiglitz (1997: 737) and Miller and VanHoose (1993: 331) concur, and also note that the deposit check received in the chain of deposit creation will not increase the total amount of deposits or money. Though generally considered a significant and prominent theory of money and banking, the fractional reserve theory was not well considered for its clarity (Mints 1945: 39), and Werner (2014: 9) is keen to point out that numerous attempts have been made to resolve issues on the supply side of the theory, arguing for the endogeneity of money, which thrust the intermediary function of banks from an individual level to a systematic level, facilitating the formation of the financial intermediation theory of banking.

1.2.9.3 Financial intermediation theory of banking and money

The seeds of the demise of the fractional reserve theory were sown early in its era of influence. In his "*Treatise*" (1979 [1930]: 213), Keynes inferred that banks had two functions, collecting deposits and making loans from these as financial intermediary, or in fulfilment of the same function in a banking utility modality, where banks settle trades. Seemingly, then, little space was left for monetary creation in this perspective, beyond what Werner (2014: 9) considers the mockery of the notion banks could create money from nothing. Keynes "*the General Theory of Employment, Interest and Money*" (1936: 82) placed no importance on banks which, he now argued, were mere intermediaries that required the collection of deposits in order to lend. Schumpeter (1986: 1115) noted Keynes' fluctuating position on the matter, but ultimately, his increasing influence in the post-war intellectual landscape drew a great deal of support for the theory (Werner 2014: 9).

Likewise, this era witnessed many notable contestations to the fractional reserve theory, like those presented by Gurley and Shaw (1955) (1960). These studies rejected out of hand the idea that banks were unique in their ability to generate funds for loaning where other intermediaries could only transmit loanable funds generated elsewhere via modest brokerage (Gurley & Shaw 1955: 521). They pointed out that banks were not really special since the intermediary function was the same between monetary and non-monetary intermediaries (Gurley & Shaw 1960: 202). Additionally, such ideas gained traction with the ascent of

James Tobin, who articulated the modern version of the financial intermediation theory of banking, in harmony with the ideas of Gurley and Shaw. Like Keynes and other theorists of the financial-mediation ilk, Tobin was disdainful of credit theories of money creation, and seemingly set out to ridicule the notion (Werner 2014: 10).

The difference between commercial banks and other intermediaries had been viewed in terms of degrees which, in his opinion were too harshly drawn. Essentially, the distinction lay in relation to the special reserve requirements and rate ceilings banks are subjected to. In other words, it is the specific nature of the regulation that the banking sector is subject to, under which any other financial intermediary would function in an analogous way (Tobin 1963: 418). So, banks only seem different because regulators single them out. Tobin and Brainard's (1963) portfolio model therefore ignored banks and did not distinguish between banks and non-financial intermediaries, forging a strong contribution to the mainstream advancement of this approach (Werner 2014: 10). Tobin (1969: 29) further argued that financial markets are complex interconnected relations of assets and prices, resulting in the role of banks being reduced to a mere intermediary, one of many types of intermediary without any special, unique function. Incidentally, Werner (2014: 10) points out that this assertion was made in the first issue of the *Journal of Money, Credit and Banking* (Tobin 1969), one of a number of academic publications that exclusively publish articles coherent with the financial intermediary theory of banking. Regardless, this theory has, much like Smith's myth of barter, achieved a dogma-like status among economists.

Modern proponents of this theory include, and are certainly not limited to, Klein (1971), Monti (1972), Sealy and Lindley (1977), Diamond (1984, 1991, 2007), Gorton and Pennacchi (1990), Bencivenga and Smith (1991), Bernanke and Gertler (1995), Myers and Rajan (1998), and Diamond and Rajan (2001). A conclusive list encompassing the last forty years of publications would be near impossible to record, as this theory has now, despite the absence of empirical verification, been accepted as fact, or at least correct. This includes the credit view in macroeconomics, which recommends a monetary transmission channel of bank lending (Bernanke & Blinder 1989; Bernanke & Gertler 1995) and any classical and neo-classical macroeconomic models that actually considered banks at all. Contemporarily, banks are considered to be financial intermediaries that concentrate on the transferal and conversion of liabilities endowed with particular features into assets with other qualities in respect to

liquidity, maturity and quantity (Werner 2014: 11). The question as to how a money supply is generated and allocated is left unanswered (Werner 2014: 12).

1.2.9.4 An empirical test; Where is money created?

Werner (2014:12) asserts that the simplest test for studying the location of the monetary creation process would be an examination of a bank's internal accounting through the process of granting a bank loan. A key question would address whether, as a requirement for this accounting operation of booking the borrower's loan principal to the bank account, the bank physically draws a corresponding amount from another account. This would result in an equally valued reduction in the balance of another entity, meaning a drawing down of reserves, as fractional reserve theory contends, or of other funds, as financial intermediation theory contends. Alternatively, if banks can credit borrowers' accounts with a loan principal without sourcing or withdrawing that money from another external or internal source, such a result would constitute evidence of the credit creation theory.

Werner (2014: 12) describes taking out a loan of two-hundred thousand Euros, and elaborated on his *a priori* expectations for each theory before undertaking the live empirical test to conduct a comparative audit. A small regional bank in Germany was used, as larger banks would had to have disclosed internal accounting data and procedures in breach of their confidentiality and IT security commitments, as well as the fact that the transaction volumes of large banks are such that a very sizable loan would have to be taken out in order to track the process, so much so that it would clash with internal risk procedures. Similarly, all European banks are subject to the same, identical regulations, meaning that a smaller loan going through a regional bank (*Raiffeisenbank Wildenberg* in Lower Bavaria) would still be able to confirm the results empirically, without compromising the academic validity of his study (Werner 2014: 13).

The transaction, undertaken on 7 August 2013, involved Werner including two staff members from the bank and a television crew from the BBC to film the procedure (Werner 2014: 13-14). The results on the liability side indicated that consumer deposits are considered part of the institution's balance sheet. This is contradictory to financial intermediation, which would assume that banks are similar and unintelligible from other non-bank institutions which are

required to hold customer deposits off balance sheet. Actually, banks consider consumer deposits very differently from other, non-bank financial institutions. Non-bank intermediaries record their customers' deposits off their balance sheets, whereas banks consider them as claims by customers who receive deposits as records of their loan to the bank; thus, what is known as an account statement can only be theoretically reconciled with the fractional reserve or credit creation theories (Werner 2014: 14-15). In fact, the liabilities side account information supports the assertion that banks create money and credit individually, which supports the credit creation theory (Werner 2014: 15). The balance sheet analysis on the asset side (Werner 2014: 15-16) similarly did not correlate with the financial intermediation hypothesis nor the fractional reserve theory. The findings were, however, consistent with the credit creation theory (Werner 2014: 16) in the first empirical study that tested all three theories of banking in an uncontrolled, real-world environment. The process of money making was tested through the facilitation of credit to the borrower's (researcher's) account to establish whether the bank had, in this action, transferred money away from another external or internal account source, which would have confirmed the fractional reserve and financial intermediary hypotheses, respectively. Instead, it was discovered that new funds were created or invented, crediting the borrower's account with a deposit, although no deposit, properly speaking, had actually taken place, supporting the credit creation theory. This allowed Werner (2014: 16) the distinction of claiming with confidence, for the first time in a five-thousand-year history of banking, that non-issuing banks individually create money and credit from nothing in the action known as extending a bank loan. No existing money or credit is re-allocated; new money is generated. This modern-day 'alchemy' has far-reaching implications.

Firstly, in response to Eugene Fama's (1985) enduring question about what makes banks special, and distinct from other non-bank financial institutions, it can be said that they can individually create money. Werner (2014: 16) soberly concludes it is somewhat distressing to consider the implication that economic theorisation has, in the last century, actually regressed. Additionally, it also alludes to the general lack of academic and theoretical advancement made in finance and banking. There are also regulatory and policy implications stemming from this research. The ramifications for policy extend beyond monetary to the fiscal too, and this should be reproduced in economic and political theory. Crisis avoidance or aftermath policies would, for example, have to take account of this theoretical difference between the current perspective and credit creation theory (Werner 2014: 17). Impositions of

higher capital requirements, for example, will not prevent crises or boom-bust cycles, as banks could still expand the money supply and fuel asset price inflation, increasing bank capital with newly created money. Indeed, Werner (2014: 18) is keen to point out that after five thousand years of monetary evolution, humankind has not yet seemingly discovered a dominant monetary system that would meet the conditions of fair, accountable, effective and stable, democratic governance in the allocation, creation and regulation of money. The next chapter of this dissertation will begin to speak directly to this issue.

1.3 Conclusion

This chapter began with the seemingly audacious task of considering alternatives to the prevailing dominant narratives in academia, governance and public arenas about the origins of money in order to illuminate whether money's functions account for its nature and existence, or its nature and existence account for its functions.

Regarding money's origins, then, the historical and archaeological record clearly indicates that it emerged with writing as an administrative function of early states to facilitate exchange, a logical result of the emerging city states' need for trade – post division of labour. Markets, contrastingly, emerge around armies and are, in the alternative perspective, taxed into existence as a convenient means to ease the burden of production for the vast military forces that sprung up around early states or palace and temple complexes. In all early societies where this happened, the social and later political and economic pressures of increases in debt slavery resulted in the idea of debt forgiveness, or jubilee, while later Mediterranean civilisations relieved this social pressure with coinage. Likewise, when exploring alternative conceptions of value, the astute scholar notes that questions of whether or not any kind of substance or essence value exists prior to an exchange will seem irrelevant, upon consideration that such questions will invariably pre-determine, or as Orléan contends, frame the inquiry into the exchange process. Besides, the majority of the theories presented contend that actual exchange, or sociation, is what determines value, thus speaking to the importance of Simmel's observation that money is a claim upon society and that social order is not dependent of the elimination of inequality, but rather its stabilisation via monetary circulation. Finally, of importance to the institutional and decision-making aspects of monetary regulation, the location of monetary production was sought to identify the locality

of that structural institutional power, as the production of this institution would reveal the location. Surprisingly here, all indications point to banks as being individual agents that create money or credit from nothing in the action known as granting a loan.

At its most basic level, then, money is trust. In its ancient, human or communal forms as part of credit systems, it represents varying degrees of social trust in those with whom an individual transacts in their communal environment, and this can be scaled anywhere from gift to commercial interest baring loan. In modernity, it too represents trust, though this is as Simmel observed, a more anaemic and quasi-religious form thereof. Individuals trust in their claim on society, propagated by myths about barter or the social contract and, upon consideration of a more historically framed argument, this confidence begins to look more like the fruit of deception, or more plainly, a con. Is this confidence not really just trust and faith in the issuing agent of the currency order? This trust is founded on the rationale of the banking (central and private), military, government complex that actually underlies all modern currencies, and which is a modern variation on a very old theme. Moreover, as Graeber's argument makes clear, such logic of the state is founded on violence and slavery in the formation of most contemporary economic and governance institutions. Surely monetary and financial institutions founded on liberty or more egalitarian, decentralised, humane and democratic principles would result in better governing institutions?

The next question to explore, then, would revolve around whether a decentralised, or more hyper-democratic, equitable, sustainable and stable monetary form, would be realisable and preferable in a modern context. Alternatively framed, are there any modern forms of the ancient communal credit monies that are antithetical to the modern state and commercial forms of money? Are there any ideological bases to underpin these and the alternative paradigms of monetary and economic thought that this chapter has introduced? Have any of these produced actual alternative forms of monetary order? And, do these forms of money correlate better with their theories and ideologies than orthodox or heterodox theories' attempts at hypothesis do? These are the questions that the next chapter will ventilate.

2. Chapter 2: An alternative ideology and agency for money

"Anarchism is democracy taken seriously"- Edward Abbey

"Nothing is yours. It is to use. It is to share. If you will not share it, you cannot use it"- Ursula K. Le Guin

"[Anarchism] wants to make the issuing of currency, money, the tool of exchange, call it what you will, as free as the issuing of a personal note or mortgage. This would wipe out the interest-takers and make them more useful to society."- Joseph A. Labadie

2.1 Introduction

As noted above, it has become commonplace in contemporary society to think of a monetary system in much the same way that Barnes (2006: 8) analogises it, as an "operating system" of the economy, which in turn is seen as a sphere of its own or a sector of modern life; financed by banks – goods are produced in factories by companies who manufacture things for consumption. It can also be seen as a system for the production of services and goods, as exemplified in the alleged meeting of supply and demand to satisfy wants.

An economy can also be understood as institutional structure, complete with incentives for and constraints upon the behaviour of both decision makers and those who live under the institutional orders. So, an economy is really just a system of rules used to organise society, and to divide up tasks and allocate resources in the pursuit of social order that will allow the individual coordination or coexistence of social life. However, the actual role of the monetary and economic forces as the real architects of social order has often been overlooked in dividing the responsibilities of this entity called 'society' between consumers and producers of things, in dividing distribution from services and placing monetary systems to oversee them, despite maintaining monetary neutrality, all as the modern liberal-inspired view of the world has encouraged (Fioramonti 2017: 31). Indeed, as noted, politics plays an important role too, but in line with Graeber's (2014: 66) comments on the relatively small influence that states have generally exerted as points of reference in individuals' lives, it would seem the economy, as understood in a conceptually modern sense, plays a far more important

institutional role in producing rules for social order (Fioramonti 2017: 31). If this is so, surely the importance of monetary theory is similarly relevant?

The question at the heart of this chapter will look toward ideological canons which also seek a third way or alternative to the largely dominant, incompatible arguments traditionally associated with the resolution of the problem of social order, emanating as they do from deliberations about monetary and political orders. The answer this chapter will explore may not seem as radical as the initial reactions to the selected intellectual discourse may evoke.

This chapter will therefore explore and propose anarchism, in the form of French philosopher Pierre-Joseph Proudhon's economic mutualism, as an economic paradigm and political ideology that is largely consistent with the monetary deliberations of debt theorists. Indeed, like Simmel 2004 [1907], Mitchell-Innes (1913) (1914) and Knapp (1924), Proudhon's ideas, though flagrantly radical and extreme, begin from many of the same observations about money and capital. Indeed, it was his insistence on seeing the location of capitalist exploitation in the realm of monetary exchange, and not production, which not only distinguished Proudhon from Marx, but also speaks to his importance in the agenda of this research project. Moreover, an introductory consideration of Proudhon leads to his follower, Silvio Gesell, who is both an important and largely overlooked monetary reformer and social thinker who inspired the inception of some of the first, and most enduring, "alternative" or non-government currencies.

2.1.1 The philosopher of poverty; Pierre-Joseph Proudhon

Guérin (2005: 40) points out that in his lifetime, Pierre-Joseph Proudhon cut something of a lonely figure, intellectually. This is somewhat puzzling, considering his colossal, cerebral stature. The celebrated, self-made autodidact is revered as something of a "protean genius" (Guérin 2005: 39) and is concomitantly considered the father of socialist political economy, scientific socialism, contemporary sociology, federalism, revolutionary syndicalism, mutualism (importantly) and famously, anarchism. He was also the first philosopher to anticipate and decry the inherent dangers associated with dogmatic, statist socialism. His prolific "bubbling cauldron" (Guérin 2005: 39) of a mind produced some of the most highly original, insightful and sophisticated theorisation and analysis on political, economic and

social organisation. Concurrently, this cauldron-like thought process would frequently emit flagrant and outrageous notions regarding art, sexuality, feminism, war and development. These indicate the constant influence of his early puritanical Christian education which also manifested his fiery, fanatical kind of moralistic delivery. At once morally conservative and ultra-radically liberal, Guérin (2005: 40) observes, perhaps suitably, he has been claimed by the most ambiguous of ideologies.

Proudhon began to write and publish during the July Monarchy (1830–1848) when political criticism tended to be framed in highly satirical prose. Ridicule and parody were often employed by Proudhon to expose what he perceived as political and social inequality (Wiese Forbes 2001). His wild rhetoric shocked and troubled his contemporaries, many of whom Proudhon deliberately mocked. He famously asserted that the political economy of Ricardo, Smith, J. B. Say and Malthus were an incoherent ensemble of ideas and characterised what would currently be considered as orthodoxy in economics as "the organisation of robbery" (Proudhon 1846 [2011]: 179). He proceeded to point out in "*System of Economic Contradictions: or, the Philosophy of Misery*" (Proudhon 1846 [2011]) that orthodox and socialist economics were guilty of treachery to the advancement of science and, collectively, of slander when political economy mistook its "scraps of theory" for science, thus denying further scientific advancement, and when socialism attempted to reconstruct society on an undiscoverable basis. He noted that both of these paradigms appealed to a common authority whose backing each side claimed, but none possessed – science (Fotopoulos 2000: 97).

This turbulent era was also marked by large-scale and rapid commercial and industrial expansion in France under Louis-Philippe (1830-48); machinery replaced labour and infrastructure was improved, as in digging canals and constructing factories for production, funded by massive amounts of capital generated to continue such projects, which industrialised the French economy at a feverish pace. Modern economic forces were here staging an attempt at global domination; bankers were kings and capitalists the lords of creation. However, social relations were in complete chaos (George 1922: 532). The world then was full of utopian ideas, but none had found an organising principle and with the passage of time, things grew more urgent. Political reform had been attempted in 1848, but universal suffrage had only facilitated the disastrous introduction of Louis Napoleon to the throne. Into this chaotic, uncertain *zeitgeist*, Proudhon introduced his solution for order: mutuality. Proudhon's system of political thought emerged from his unique conception of

economic forces (George 1922: 532). Importantly, it should also be noted that by "anarchist economics" (Mckay 2012: 64) scholars refer to two, interrelated concepts that are embodied in Proudhon's outlook. On the one hand is an anarchist critique of capitalism, while the other is a set of proposals for how an anarchist economy would operate. Both inform each other, thus, what anarchists oppose about capitalism will be expressed in their economic visions, just as their desire to live in a society free from oppression informs the critique of capitalism. These two notions are interrelated and integral to each other.

Proudhon's notoriety and fame were established in 1840 when he contemplated the question, "what is property?" and concluded that the answer was plainly "theft" (1840 [2011]: 87). The book was a scathing critique of private property, but also contained outlines and sketches of a new, free society – anarchy. This was a rejection of authoritarian socialism and of liberalism, calling rather for a union or synthesis that would produce a third way or true form of human association which he called "liberty" (Mckay 2012: 64). His criticism rested on two concepts. In the first instance, property allowed owners to exploit users, or "property is theft". But relatedly, this property defined the oppressive social relations between the two, or "property is despotism". These two concepts are symbiotic. Property creates relations of oppression and these relations facilitate exploitation, as well as the appropriation of the common heritage by a few, forcing the many to submit to such domination and allowing the owner of property to appropriate the results of their labour (Mckay 2012: 65).

The strength and brilliance of his critique was in his disarmament of all the traditional defences and apologies for private property, and instead using them to attack the institution (Mckay 2012: 65). To assertions of property as natural right, he pointed out that the essence of such rights was their universality, but private property actually hindered the extension this right to all. To assertions of the importance of private property in securing liberty, he correctly objected that if a human's liberty was sacrosanct, it was equally so for all, and if this condition required property for its existence or fulfilment, then the appropriation of material would be logically necessary for all individuals. Similarly, to notions that labour created property, Proudhon observed that most workers had no property to labour on, and the product of that labour was not owned by them anyway, but rather by landlords and capitalists. Concerning occupancy, he pointed out that most proprietors did not occupy all of the property they owned, while the occupants and workers did not own where they lived and worked (Mckay 2012: 65). Proudhon also noted that those who advocated private property

had a choice to make between principle and self-interest, or logic and hypocrisy. If it was right for the initial seizure of resources and property, by whatever means or rationale, it was, by the same token, right for others of the same or later generations to eliminate private property, favouring a system that is respectful to the liberty of all, not just a few. In Proudhon's view, this meant that those who did not possess any property were, by the same rationale, titleholders as those who did. This did not, however, infer that property was to be shared by all, but rather that the institution of private property was instead to be abolished (Mckay 2012: 66).

Since property facilitated the foundation of authoritarian social relations and resulted in exploitation, Proudhon thought it demonstrably false that workers were free when they were systematically forced to find labour. He was aware that such conditions actually violated equality by right of exclusion, which was clearly a freedom by despotism. He likened it to robbery, as workers had surrendered and sold their liberty to proprietors. Anarchy was antithetical to this, the absence of sovereigns and masters, while a proprietor was synonymous with those who would pass on their will as law, suffering no contradictions nor anguishing under any control. In this way, Proudhon considered property a despotism, with each proprietor a sovereign lord in their sphere of property, and hence, freedom and property were, in his opinion, incompatible (Mckay 2012: 66). He thus sought the need to seek liberty for all, abolishing private property and the repressive relationships it generated, as the life of a proprietor or the ability to consume free of the production burden rested on the exploitation of the labour of another afforded to those who could be rentiers. Proudhon preceded Marx in contending that workers produce more value than they collect in wages, and that owners appropriate the additional value created by cooperative activity. Here, property meant that one would receive the product of another's labour, and to satisfy property, workers thus had to produce beyond their needs. Hardly surprising, then, property was theft. But synchronously, Proudhon also outlined sketches of his anarchist economy (Mckay 2012: 67).

He acknowledged his full awareness of the common meaning of the word 'anarchy' as synonymous with the absence of principles and laws, or disorder. Proudhon thus deliberately attempted to affirm the apparent absurdity in contending that anarchy is order as a means to demonstrate that authoritarian government and the unequal distribution of wealth were the principal causes of chaos and disorder in society (Marshall 2008: 239). Similarly, Proudhon's attack on private property should not be read as a complete rejection of the concept. Rather,

Proudhon was in his critique quantifying its scope and, Dillard (1942: 66) notes, most students of Proudhon agree that he actually defended private ownership throughout his entire life. In this way, Proudhon's wild, erratic and often scandalously outlandish statements often functioned similarly to the conceptual ideals or perfect forms of Simmel (2004 [1907]), only with Proudhon, the analysis was less evocative and more like being punched in the face.

His response to the problem envisaged property being socialised, since it could not be appropriated under centralised authority or all capital (which he did not limit to mental or material distinctions). Because capital was the result of collective labour, consequentially making it collective property, it had to be socialised. In this conception, people are the proprietors of their things or products, but no one is the private owner of the means of production. In this way, the right to products are exclusive, while the right to the means of production is common. This holds for workers in industry and administrators in public office. So, whether in industry or on land, Proudhon's goal was to forge a new society of possessors, without any masters (Mckay 2012: 67)

2.1.2 The key economic contributions of Proudhon: mutualism

Thus far, all the theories explored have considered a view of money that stresses the primacy of its conception and use within and alongside the idea of a society. Additionally, the introduction of Simmel (2004 [1907]) framed this without the need for a hierarchical and, in his case at least, ideological leaning to the question, but rather represented the pursuit of a third way or alternative principle.

Proudhon was much the same, something of a theoretical pioneer, or at least one of the earlier theorists who began to frame his analysis accordingly. His solution to the problems confronting his era came in the form of a social reform programme. Proudhon advocated an order based on private property and competition wherein the elements of unearned income, like rent and interest, were eliminated. He thus sought a "Bank of the People" to replace the Bank of France. The scarcity of credit and money would be overcome by universalised bills of exchange. Additionally, every commodity could then enjoy the privilege of a function enjoyed by money, elevating all to media of exchange. This would require the abandoning of the relation between gold or any circulating specie and the medium of exchange. The

essential idea behind Proudhon's bank of exchange was to reduce the product of all labour to money. The important implication thereof is that, unlike many of his contemporaries, Proudhon's solution to the economic problem was very much a financial one and representative of his understanding of the causal factors contributing to social, political and economic instability (Dillard 1942: 65).

The Bank of the People would democratically organise credit, and this was considered a means to arrange labour, with socialised credit creating socialised property. Unlike many of his contemporaries, such as Marx and Walrus, Proudhon did not write normatively but based his ideas on what he saw going on around him. The February Revolution of 1848 profoundly influenced him and allowed him to develop his positive theories on anarchist economics in seeking to resolve the social problem, by stressing the primacy of economic transformation. He highlighted the movements he saw on the ground and interacted with in Paris and Lyon, where workers had self-organised credit, reflecting an understanding by labour associations that the organisation of credit and of labour amounted to the same thing. In this way, workers had regained alienated capital via organisation and competition. Mutual banks would support all workers' associations to ensure their liberty from oppression (Mckay 2012: 70-71). Likewise, Proudhon also based his monetary ideas not on any abstract notions or normative prescriptions, but rather the financial practices he observed. He understood that banks issued credit, thereby expanding the money supply in response to demand. In this way, Proudhon was an early advocate of the endogenous theory of money supply. He also, like Simmel and Mitchell-Innes, was well aware that a money economy with widespread credit and banking systems functioned very differently from the barter economies that orthodoxy assumed (Mckay 2012: 72).

Proudhon did not prescribe the elimination of private enterprise or market competition. His proposition was to allow the conditions for a smooth functioning, competitive market that regulated commodities and prices via the elimination of the preference for money over other forms of wealth. This would, in turn, release the full productive capacity of the economy (Dillard 1942: 65). This is further evidenced in his contrarian stance to Marx on capital accumulation. Unlike Marx, who concerned himself with the conflicts emanating from the replacement and accumulation of capital assets, Proudhon's analytical focus was on the sphere of circulation, not production (Dillard 1942: 66). This represents a key feature in

Proudhon's outlook that distinguishes him from his contemporaries – his focus on money or capital as the location for economic reform.

Thus, Proudhon's general strategy involved handing over control of economic relations to workers and removing power from financiers and capitalists. Social and mutual credit is at the core of these proposals which, intriguingly, speak to prominent contemporary deliberations on monetary reform and financial regulation, specifically the issue of disintermediation. Money, he pointed out, hid itself and the solution would be to let all merchandise become current money. His argument was premised on the belief that money is crucial to the property rights which capitalism is dependent on. He reckoned that there would be no way to extract interest through borrowed capital, if there were no money. This amounted not so much to an outright call for the abolition of money as much as an endeavour to bypass it. If credit were free and workers able to borrow without any interest, there would be no demand for capital, or interest-bearing capital markets, at least. To Proudhon, money was not something to be hoarded and amassed as capital because of the interest it earns, but rather something to be used and employed, exchanged and passed on. This view then re-emphasises the monetary function of a medium of exchange in order to rehabilitate capitalism's shortcomings. In this way, bills of exchange would be issued (like mortgage notes or coupons) rather than traditional bank notes. As such loans could be backed against property and eliminate intermediaries like banks and states, property itself is then converted into money and liberated for use in the economy (Dodd 2014: 352-353).

While normal banknotes were imbued with the guarantee of redemption in metallic currency, exchange notes were really just credit notes being circulated at face value. This would restrict their sphere of circulation, as well as increase the monetary dependence on confidence in the issuer and the currency community, but essentially, Proudhon considered this as money. Credit is, in such instances, just an elementary exchange where one party delivers a good or product and the other remits payment to the producer in interest free instalments. These ideas are premised on specific notions about capital labour and, as noted, property. Proudhon thought that capital was unproductive, and that rent, interest, and profit especially, were just forms of theft. Mutual credit, however, would abolish rentierism and interest, as it would render the whole idea of capital and capitalists redundant. The contrast between traditional interest-bearing credit and mutual credit is noteworthy. In a system of interest-bearing credit that is based on private property, credit is a unilateral relationship between borrower and

lender. The lender is basically a parasite to whom the borrower must pay tribute to utilise capital that the worker ultimately actually owns. A mutual system free of intermediary lenders who extract usury credit would actually be the extension of the product of one's labour in consideration of the future product of another's labour. Interest-bearing commercial loans are characterised by one creditor and one debtor, whereas in a mutual system, every creditor becomes a debtor in his or her own turn. This perception sees credit as exchange. Dodd (2014: 353) points out the striking similarities between Proudhon's conception of money as credit and Mitchell-Innes' view that money is a privately issued IOU. As Proudhon contends, credit is bilateral and workers pledge to each other their respective products on the condition of equality of exchange. Mitchell-Innes concurs, pointing out that all who incur debts issue their own dollars (Dodd 2014: 353).

Contemporarily, Proudhon is relevant because his approach highlights important modern deliberations about mediation, the future of money and banking. Proudhon observed the contemporary notion which placed capitalists between producers and consumers, and placed capital or property between labour and talent. Proudhon's mutual exchange was contrary to modern notions of banking, as it had no capital and existed only to facilitate exchange, with its membership being unlimited, perpetual and not characterised as a joint liability where members are bound to each other, but rather as a collective or general insurance. It also made no profit because labour creates everything from nothing. This is Proudhon's mutualism; an arrangement or social economy that was principled on production without capital and exchange without profit (Dodd 2014: 354). Such a system would remove credit from the hands of unproductive intermediaries and allocate it to producers, thus restoring credit to its proper social function. Credit would no longer be an implement of speculation where debtors are compelled to pay tribute in the form of part of their product to capitalists, but would rather be self-managed by a community of producers. Like nature, Proudhon's mutualism emanated from the community, not from capital (Dodd 2014: 354), a notion that would emerge again later in many of the monetary theories already presented.

Proudhon's Bank of Exchange never materialised, but his Bank of the People did come to fruition in the form of a society established in Proudhon's name on 31 January 1849. As Proudhon conceptualised them, the two banks were technically different. The Bank of Exchange would lend without interest, while the Bank of the People would extend credit at fixed, low interest rates of two percent per annum, a number intended to depreciate to as low

as 0,25 percent. Obviously, as noted, the Bank of Exchange would circulate credit and would require no capital, whereas the Bank of the People was intended to launch with five million francs in capital, divided into five-franc shares. Regarding monetary issuance, the Bank of the People would distribute notes in exchange for specie, but contrary to traditional bank notes, these would not be redeemable in coin but would instead be "orders for delivery, invested with social character, made perpetual and payable at sight by every member or support in the products of services of his industry or profession" (Dodd 2014: 355). To Proudhon, then, the Bank of the People introduced into economic lexicon the principles that had underscored modern democracies and the French Revolution: fraternity, equality and liberty. Thus, the Bank of the People held the potential to realise the financial formula for reciprocity. Although his intention was to evolve the Bank of the People into a joint-stock company, it first had to operate as a partnership, with managerial structures, delegates and a general assembly a thousand strong. If the experiment failed (and it did), the assets would be returned to those who were entitled to them. In less than a year, with only twelve thousand subscribers and a meagre eighteen thousand francs of capital, that happened, as the experiment to set up a Bank of the People had failed, largely due to scaling problems (Dodd 2014: 355). Dodd also points out that perhaps the problem with this monetary utopia was its treatment of money as a single form, when offering a multitude or multiplicity of monetary formats would have been preferable.

2.1.3 A surprising connection to modern macroeconomic theory

Generally, Proudhon is less remembered for his highly original social, political and economic insights as much as for his shocking, contentious and outlandish statements, or as the first philosopher to proclaim himself an anarchist. But in 1942 at the University of Delaware, Dudley Dillard penned a fascinating study that observed, contrary to traditional scholarship which had a proclivity to draw comparisons between the work of Keynes and Marx, that there were striking similarities between the theories of Keynes and Proudhon, as both theorists were reacting to generally comparable problems in differing eras (Dillard 1942: 63). Furthermore, he argued, in light of the conflict between Proudhon and Marx and the fact that Proudhon and Keynes shared a common connection, of sorts, with Silvio Gesell, that the analytical similarities between Keynes and Proudhon were of far greater significance than the comparisons between Keynes and Marx were (Dillard 1942: 64).

Their conceptions of property share some interesting similarities. As noted, Proudhon is famous for his now seemingly ubiquitous assertion that property is theft, although this has often been taken too literally, ignoring the analytical dimensions of the statement and the theoretical context. Keynes obviously avoided any inflammatory references to property and confined his analysis to the financial structures of capital in general, but pointed to the detriments of private monetary ownership. "*The General Theory of employment, interest and money"* (1936) can thus be seen as a study of the calamitous consequences for an economy with a proclivity to horde or accumulate money. Despite technical and lexical differences, Keynes and Proudhon reach the same conclusion about the private ownership of money and property, which takes a position critical of all property income, the flow of which is attributed to artificial scarcity of capital assets, facilitated by the constrictive tendencies inherent in money (Dillard 1942: 67).

Similarly, Proudhon's assertion that property equates to theft is comparable with Keynes assertion that rentier income, or interest income, is objectionable. Proudhon distinguished between possession and property. Property inferred the private proprietorship of the mechanisms of production, subtracted from unearned (or non-labour) income, which normally acquired such property. Keynes asserted it was not the custody or ownership that was important for the state to assume, but rather it should regulate specific aspects of investment and establish within the current state of economic development the fundamental remuneration for those in possession of the instruments of production. Because interest imposes no more sacrifice than land rent does, once a rational economic reform programme is implemented, non-functional rentier capitalists would gradually become superfluous and disappear (Dillard 1942: 67). In believing that complimentary credit could be the instrument for the abolition of rent and interest, Proudhon's primary preoccupation did not differ substantially from that of Keynes. Both theorists considered modern banking structures and the financial institutions underlying them as the primary problem. Both contend that private property in the means of production is valid and that the primary cause of economic problems was the tendency to horde money. Essentially, the theoretical study of both theorists focuses on money and interest (Dillard 1942: 67).

Both theorists also attempt to bypass the rentier with reforms which aim to gradually diminish the role of interest and return on capital. This is not a moral judgement on the

rentier, but must be understood in the context of the relationship between the rentier and the active entrepreneur. The reforms of both these theorists speak to the desire to implement practical reform programmes that would replace the functionless rentier with the entrepreneur as the source or point or inception of economic activity. Society has little use for sedentary, non-functional rentiers, and anything that inhibits the entrepreneurial spirit is inimical to the general welfare of society. Essentially, both theorists contended that payments of interest to rentiers act as a brake on developmental progress, and if the conditions that characterise the conduct of business are not improved, the community or society as a whole suffers. Their similar outlook is strengthened by a shared propensity toward gradual, peaceful reform for social change that would eliminate these barriers to prosperity (Dillard 1942: 68).

Furthermore, the two were united in their belief that, contrary to orthodoxy, all capital is not necessarily industrial capital. They were unanimous in their assertion that because of its strategic position in the deployment and exchange of industrial capital, financial capital imposed profound limitations to the effective operation of an otherwise sound and competitive system. It was the associated problems of capitalism, like the absence of effective demand, depression, unemployment and crisis, that resulted from the manipulation of financial capital. This distinction of the financial sphere of the economy as the location for both the causes and potential sphere where practical prescriptions that would remedy the associated problems, similarly unites both theorists, although their solutions were notably different. Regardless, both theorists related the preference for hording or holding money to a particular concept wherein the supposed distinctiveness of the entire theoretical system is related to, to Keynes this was his "liquidity preference" while Proudhon advocated his "constituted value" (Dillard 1942: 68-69).

Dillard (1942: 69) also pointed out that both theorists could be considered to be theorising on interest and money relating to the use of resources and amassment of capital. Both theories of interest are depicted as being concerned with a "liquidity-preference" and in both Proudhon and Keynes, interest is seen as a compensation for parting with liquidity, or a payment for not hoarding. To Proudhon, interest functioned as an incentive to "engage" capital. He distinguished between "free" and "engaged" capital, the former being regarded as possessing a form that is instantly realisable, in this case money. "Engaged" capital was that which was being utilised when the value it represents or constitutes was employed in production. Thus, interest was a premium to be paid to capitalists to entice them to surrender their "free

capital", enabling its engagement for the production of services and goods. Again, Dillard (1942: 70) points to a concurrence in Keynes, noting that this concept is similar to his conception of the "liquidity-preference", and although Proudhon's "constituted value" is not exactly the same, both assume relative relevance when considered in relation to future uncertainty. Furthermore, Preparata and Elliott (2004: 926) observe that had Proudhon further, and more critically, pursued his distinction between "free" and "engaged" capital when it came to analysis of the behaviour of money relating to the two identified forms, he may have avoided some of the contributing factors to the demise of The Bank of the People, as what he was distinguishing was not so much a productive quality of capital as a distinction between products ready for consumption or purchase money and products in incubation as savings and loans.

The criticisms that Proudhon and Keynes shared of rentier capitalism stem from their shared view that interest payment is not required to induce saving or non-consumption, and a shared allegation that accumulation will be enhanced by low or zero interest rates. It was not necessary for either theorist to deny that individuals save more from a given income at a higher rate of interest, because the point was that the interest rate was the primary restriction to the creation of income and accumulation. Any functional relation between the volume of saving on a given income and the rate of interest was thus secondary. Moreover, it was the existence of unemployed resources which lent credence to their argument, that accumulation of capital and consumption could increase together (Dillard 1942: 71-72).

These similarities seem odd upon consideration of the fact there were no formal academic linkages between Proudhon and Keynes (Dillard 1942: 63), and Keynes appears to have never been directly influenced by the erratic French anarchist. The only formal connection between the two is their intellectual relationship to the German monetary reformer, Silvio Gesell. Keynes expressed great admiration for Gesell's fundamental theorisation (1936: 32, 353–358, 371, 379) and this extended to both the technical qualities thereof as well as the social premise. He considered Gesell a, "… strange, unduly neglected prophet … whose work contains flashes of deep insight …." (Keynes 1936: 353) and classified Gesell's ideas as "anti-Marxian socialism" claiming that, "… the future will learn more from the spirit of Gesell than from that of Marx" (Keynes 1936: 355). Gesell, in turn, acknowledged Proudhon as the only other economist before him whose analysis of the theory of interest and capital had suggested a feasible solution for the reformation of capitalism. He endorsed Proudhon's

proposal that nonfictional income be eliminated by less authoritarian methods than state ownership of the means of production. Gesell's most assertive affirmation of his allegiance with the ideas of Proudhon arrived in "*The Natural Economic Order*" (1936 [1908]: 3), "I know of only one socialist – Pierre Joseph Proudhon – whose investigations into the nature of capital point to the possibility of another solution of the problem …. No one, except Proudhon, was able to conceive that the preponderance now manifestly on the side of property can be shifted to the side of the dispossessed (the workers), simply by the reconstruction of a new house beside every existing house, of a new factory beside every factory already established".

2.1.4 The laissez-faire socialist: Silvio Gesell

Silvio Gesell was born in Malmedy, Germany, in 1862 and worked for the *Riechspost* (Imperial Post) before going to Berlin to work for his brother's commercial company in 1878. He spent four years in Malaga as a commercial correspondent prior to returning to Germany to fulfil his military service. On completion thereof in 1887, Gesell emigrated to Argentina where he established a business vending dental equipment called the "*Casa Gesell*" (Ilgmann 2011: 7). This places Gesell in Buenos Aires at the same time that Argentina began to experience the fallout from its poor, colonial institutional arrangements, as it experienced its first default to an international creditor in 1890 (Barings Bank of London) (Beattie 2010: 15). It was there that Gesell began his autodidactic reflections and writings on the monetary system. His main concept was the idea of imposing a negative interest rate on ready money through a stamping system, which he called "*Freigeld"* (or "Free money"). Gesell returned to Europe, moving to Switzerland in 1899, and intensified his studies and writings, while he also took up farming (Ilgmann 2011: 7). In Switzerland, he added the concept of "*Freiland"* ("Free Land") to this solution (Ilgmann 2011: 8) before returning to Argentina in 1906. By 1911, Gesell had again returned to Europe, this time publishing his most important study, "*The Natural Economic Order*" (1936 [1908]).

The economic literature on Gesell is categorised two-fold. On the one hand, scholars of economic thought and the history thereof have studied Gesell with the aim of illuminating how his theoretical proposals have interacted with the works of other economists, like the scholarship of Dillard (1942). Preparata (2002) takes the same argument that Dillard (1942)

put forward much further, asserting that Keynes in fact plagiarised Gesell, appropriating Gesell's theories of interest and ridding them of their radical implications (Preparata 2002: 217). There is at least, in defence of this theory, scholarly consensus that Gesell's reflections on the matter preceded those of Keynes (Revsgaard Nielsen 2016: 7), but such issues are beyond the scope of this research project.

The other part of the literature emanates from the pens of prominent central bankers and economists who advocate negative interest rates, attempting to influence the present monetary debate on policy in the post-financial crisis economic landscape. These scholars do not show any inclination toward an exposition of Gesell's economic philosophy, despite habitually referencing his work whenever discussing the subject. This group – comprising celebrated scholars such as Citigroup chief economist, Willem Buiter; chief economist at the Bank of England, Andrew Haldane; Michigan economist, Miles Kimball; and Harvard economist, Kenneth Rogoff – analyses Gesell's ideas only in the context of their contemporary relevance to monetary policy and the negative interest rate debates (Revsgaard Nielsen 2016: 8). However, Gesell developed a programme of social reform which contained a sophisticated and somewhat futuristic monetary policy and economic theory, all of which were based firmly on social utopian ideals (Ilgmann 2011: 3), combining the theories of Proudhon with some of the ideals of the "Manchester school" in economics and the land reform principles of Henry George.

2.1.5 The micro- and macro-economic foundations of Gesell's theory

Gesell's socialism was a continuation of Proudhon's ideas in many respects. Some economists consider Gesell a stage in heterodoxy situated between the theorisation of Knut Wicksell and Keynes (Blanc 1998: 471). Both of these perceptions of Gesell speak to his analysis of a money economy and his impression that economic crises have monetary origins. Inspired by the events he witnessed in Argentina, Gesell's interest in the monetary causes of economic crises revolved around deflationary crisis, much like the deflationary environment in the 1930s which inspired Keynes. Like Proudhon, Gesell put forward a theory of economic organisation for society which would promote economic welfare and social justice, concurrently. His proposal was to free the economy and establish a natural economic order. Gesell's free economy (or "*Freiwirtschaft"*) would therefore free money from interest, as

well as liberate land from rent. Workers could receive the total value of their output, should the economic privileges of moneylenders and landowners be abolished, and this would facilitate an improvement in economic activity and competition (Blanc 1998: 471). This equated to the pursuit of an anti-capitalist form of market economy that sought the liberation of the forces of competition, along with the removal of barriers to prosperity, like rent and interest.

Gesell also abandoned the orthodox idea of monetary neutrality as contended by the dominant quantity theory of money. Contrary to the classical perception of interest being determined by thrift and productivity, Gesell saw interest as a monetary phenomenon, owing to his difference in opinion as to the effects of money. Unlike neo-classicists whose conception asserts that money is merely a neutral, useful invention that facilitates trade, Gesell pointed out that money had very real and devastating effects on an economy because, unlike other goods, it could be stored with minor carrying charges and thus effective demand would not always be equivalent to supply, unless there was a reward granted to money hoarders for not hoarding via interest (Ilgmann 2011: 12). Gesell summarised the micro-economic foundations of his theory in "*The Natural Economic Order*" (1936 [1908]: 97), pointing out that the physical properties of money facilitated its indefinite withdrawal from the market, free from incurring the material costs of storage, while workers and producers, who relied on money to effect exchange, were obliged by the regularly mounting losses associated with the storage and decay of wares to generate a demand for money. Thus, merchants could compel producers and holders of goods to make payment in return for their desisting from arbitrarily postponing, delaying or preventing the exchange of goods by withholding their capital (Gesell 1936 [1908]: 96-102). Presuming that money is a necessary element of the division of labour, Gesell's micro-economic foundation amounts to the notion that the difference in carrying costs between natural goods and money imparts to money holders the ability to extract rent on the supply side (Ilgmann 2011: 12).

Indeed, Gesell's argument was premised on the idea of strategic behaviour by money holders, who are keenly aware that producers and owners of goods and real products will incur losses because of natural decay. Thus, they can coerce owners of goods and producers to pay a fee for their parting with their capital. In this way, goods would be sold to cover their production costs and the basic interest, which would flow from the consumer via the producers and merchants to possessors of money (Ilgmann 2011: 13). Gesell also refuted the idea that

competition between lenders would reduce the interest rate (Gesell 1936 [1908]: 232, 244) and pointed out that money in financial markets could be withdrawn from circulation, while newly created money caused increases in price levels and increased the demand for money, correspondingly (Gesell 1936 [1908]: 244). He postulated a basic rate of interest on money or "*Urzins*" (Ilgmann 2011: 13) owing to his assertion of negligible carrying costs, and also considered the basic interest rate to empirically be between four and five percent. This concept about a basic interest rate as being solely a monetary phenomenon is unique to Gesell, and he went as far as to refute the idea that interest acts merely as a reward to incentivise saving by pointing out that saving occurred throughout the natural world, free of any incentive to do so (Ilgmann 2011: 13). Furthermore, he pointed out that the assumption of a positive time-preference was somewhat illogical, while also refuting the idea of interest being generated by real economic factors. Here, Gesell acknowledged theories of productivity as generally valid, and interestingly, associated the payment of interest in modernity with the means of production stemming from the machinery of war, as in antiquity, but ultimately rejected the idea that interest arises from the efficiency or usefulness of the means of production (Gesell 1936 [1908]: 242).

Gesell also postulated a further restriction to the rate of interest, emanating from effective demand for the immediate physical needs required to sustain survival. Since his conception advocated the non-existence of competition between money lenders, it would imply that the goods producers would be disposed towards paying any interest rate, to the point of the natural decay of their produce, which would be significantly higher than Gesell's proposed rate of four to five percent. To Gesell, however, the effective demand for physical needs like shelter and food could not be reduced to zero, and money, therefore, had to circulate in an economy, at least in a sufficient amount to secure physical human survival (Ilgmann 2011: 13-14). Furthermore, Gesell noted that factors like primitive production, bills of exchange and barter also limited the rate of interest. Since increases in interest rates routinely reduced the advantages of the division of labour, it increased primitive production, leading to an increase in barter and amplified the circulation of bills of exchange (Gesell 1936 [1908]: 227). To Gesell, rising interest rates gradually decreased the advantages of conducting money transactions to zero, and accordingly there existed an exorbitant interest rate where producers would no longer demand money, either suspending transactions or forcing transactions to be conducted by barter (Ilgmann 2011: 14).

In Gesell's macro-economic model, the advantage of money holders also bore significant implications for aggregate supply and demand. To Gesell, aggregate supply was equal to the demand for money, while aggregate demand necessarily had to equal the monetary supply (Gesell 1936 [1908]: 75-115). He further argued that the supply of goods would always be equal to the available stock, and thus aggregate supply was pre-determined by production, but the same relationship did not exist for aggregate demand. Despite fixing the upper limit of its supply, the stock of money did not impose a lower limit because money holders were able to withdraw cash without incurring costs. Consequentially, aggregate demand would be determined by the real monetary supply and its velocity of circulation (Gesell 1936 [1908]: 221). Gesell did not differentiate between the nominal and real stock of money, making his model inconsistent with the quantity theory of money (Ilgmann 2011: 14), but he was aware that increases in the price level would increase the demand for money (Gesell 1936 [1908]: 382-383). In this way, Gesell's macro-economic model is generally based on the quantity theory of money, which asserts that production establishes aggregate supply and the amount of money in an economy, divided by the price level, multiplied by velocity of circulation, which would constitute aggregate demand (Ilgmann 2011: 14).

Similarly, because of the negligible costs of storing money in Gesell's model, the velocity of monetary circulation is dependent on the strategic behaviour of money holders who would only lend in return for a profit margin. Consequentially, where aggregate supply is reliant on the stock of goods, demand was subject to the strategic, profit-seeking behaviour of money holders, and could differ from supply. He therefore refuted Say's law that each supply generates its own demand, and presented a model wherein demand and supply were only in equilibrium if the owners and producers of goods, or the supply side, were able to generate a profit margin which could incentivise and stimulate aggregate demand (Ilgmann 2011: 14–15; Gesell 1936 [1908]: 75–115). Despite never explicitly proposing a theory of crises, Gesell's line of thinking did go some way to explaining incidents of economic crisis, where demand-determined monetary supply is only accessible in the absence of deflation or deflationary expectations. Similarly, once aggregate demand becomes inadequate, prices are further depressed, resulting in a downward spiral that further diminishes demand, or as he put it, "This therefore, is the law of demand, that it disappears when it becomes insufficient" (Gesell 1936 [1908]: 103).

In this way, Gesell stood in opposition to the idea that falling prices would stimulate aggregate demand because, as he observed, goods that would be sold cheaply one day would be on sale at an even lower price the next. Additionally, the decrease in the price level would complicate the servicing of contractual liabilities, which would in turn limit credit and increase the need for money (Ilgmann 2011: 15). This line of thinking allowed Gesell to identify the condition necessary to avert crisis, which according to him, was that under no circumstances should prices be able to fall (Gesell 1936 [1908]: 110).

2.1.6 "Free money": The monetary theory of Silvio Gesell

At its core, then, Gesell's theory begins as a theory of interest (Blanc 1998: 473). He and Proudhon were antithetical to both Marxist and orthodox economists who contended that the relation of interest to private ownership of the means of production, and the origins of interest, emerge from the separation of the workers from the means of production, or in the factory (Revsgaard Nielsen 2016: 12). To Gesell, the true nature of interest emerged upon investigation of money, while he considered interest to be both unnatural and the cause of concentrations in wealth (Laubisch 2013: 4-5). Thus, much like Proudhon, and later Keynes, he believed that the existing monetary and financial system was the source of crisis and instability and, like Proudhon in France, he based his ideas on what he had seen on the ground in Argentina.

Like Wicksell, Gesell distinguished a monetary and a "real" interest rate (Blanc 1998: 473; (Laubisch 2013: 5). Monetary interest was the product of independent capital, and therefore was not influenced by the rate of interest on capital (like factories and houses). Conversely, Gesell noted that the interest on real capital was influenced by the rate of monetary interest (Laubisch 2013: 5) and consequentially, the monetary interest rate determined the real one (Blanc 1998: 473). Gesell also observed that money performed two contradictory functions simultaneously, as a medium of exchange and a store of value (purchasing power). These functions conflicted, as goods could decay, loose value or be subject to carrying and storage costs. Money, by contrast, was unaffected by such problems and could be preserved via storage or extraction from the market. Consequentially, while the possessors of goods were dependent on sales, the possessors of capital were secure from such losses and did not have to sell any property (Laubisch 2013: 6-7). Thus, money was endowed with the supreme

advantage over other produce and goods, and Gesell's solution was to subject money to decay – depreciative money would free money from interest and boost economic productivity (Blanc 1998: 474).

Endowing money with an artificial carrying cost would suppress the privileges and advantages associated with the monetary function of being the store of value, while promoting its function as a means of exchange (Blanc 1998: 474). In this way, money would be incentivised to circulate faster to a technologically determined level while allowing authorities to guarantee price stability by managing the amounts of money circulating via an independent monetary policy (Ilgmann 2011: 16). Gesell's reform proposed a "free money" (Gesell 1936 [1908]: 110) or stabilised paper currency that was issued or withdrawn from circulation according to index numbers of prices, with the stated aim of stabilising the general price levels. This money would depreciate at a thousandth of its value weekly, or about five percent annually (Gesell 1936 [1908]: 123). In order for paper notes to maintain their value, those in possession of currency would have to purchase stamps weekly, and fix these on to the paper notes. This meant that monetary-governing authorities would be imposing a stable, announced and fixed rate of interest on to money, instead of prices (Blanc 1998: 474). Old notes would be exchanged for new ones at the close of each annum, but through this five percent demurrage fee, the quantity of notes in circulation would decrease (he estimated to the amount of two- to three-hundred million German marks in 1914). Consequentially, the regulating authorities would have to issue new banknotes in order to avoid scarcity. This would be facilitated by legal statute, as the sale of currency stamps would go to funding new note issues. In Gesell's system, banks would not be allowed to issue banknotes, and this function would be allocated to a currency office whose mandate would be the stabilisation of price levels. Thus, the currency office would issue money when price levels fell, and withdraw currency when they rose, conducting no private or banking operations (Laubisch 2013: 9-10); its only function being the issue and retraction of money (Gesell 1936 [1908]: 137, 138).

Gesell's "free money" also did not threaten wealth storage, because despite bank deposits requiring the purchase of stamps to maintain validity, this burden fell on the holder of money. So, in the case of bank deposits, the responsibility would fall on the bank. Savers could withdraw money at the same value as they had deposited it, and this would incentivise the bank to make loans to avert the burden of this cost. Similarly, loaned funds would impart the

demurrage fee to the borrower holding the money, and in this way, the systemic disadvantage becomes not borrowing capital, but allowing capital to lie idle. Similarly, since the "free money" system disincentivises the holding of money, it facilitates an improvement in circulation and encourages economic activity by freeing indolent capital for use in production (Blanc 1998: 474). He proposed a two or three-month period wherein the currency office would exchange "free money" for old national metal and paper money at a 1:1 ratio. This was also optional, and no legal coercion would compel anyone to make such exchanges. Similarly, those who did not wish to exchange their silver or gold coins for "free money" could continue to make use of such currency, but establishing prices and assaying weight and purity, as well as bargaining, would be largely up to them, as the state would only recognise "free money" (Gesell 1936 [1908]: 140).

In Gesell's opinion, this "free money" would not be dependent on a monetary reserve, as the consistency of circulation would render monetary reserves superfluous. Furthermore, in a "free money" system, demand would be united with money and would no longer be a "manifestation of the will of the possessors of money" (Gesell 1936 [1908]: 147). "Free money" would not be an "instrument" (Gesell 1936 [1908]: 147) of demand, but rather, "free money" was the personification of demand itself which met supply on a level playing field and had a physical, material substance. This would end the influence of panic, collapse and speculation on demand. He also pointed out that "free money" was not intended to bring about the abolition of the historically abominable forms of traditional money, but rather it sought to bring money into harmony with the actual needs required by economic life (Gesell 1936 [1908]: 128). In this way, "free money" did not disturb the fundamental economic law he considered to be usury (Gesell 1936 [1908]: 38), but rather it incentivised the fundamental behaviour behind usury in order to achieve economic freedom and self-reliance for all members of society.

2.1.7 "Free land": Gesell's forgotten reform

Another curiosity in the scholarship on Gesell revolves around his idea of "free land", or rather, much like the absence of analysis of Gesell's economic theories in contemporary debates about negative interest rates, most of the scholars devoted to locating the ideas of Gesell in economic history and theory tend to ignore his proposals for "free land", and only

provide accounts of his monetary reforms. This is somewhat curious, considering the fact that Gesell's reforms were intended to break two monopolies concurrently, that of interest via monetary reform and the monopoly of land rent via "free land", in order to solve the social problem of economic crisis and conflict that plagued humanity. For Gesell, there were two causes that necessitated land reform; firstly, he believed that land should not be the object of speculation and trade and, like Proudhon, he opposed the idea that unfettered sovereign or private land holding could provide any practical solution; rather, both tended to be the causes of disorder. Secondly, and relatedly, he wanted to ensure that speculation and trade in property did not result from the introduction of "free money" (Laubisch 2013: 10-11).

Gesell was clearly familiar with, and indeed based much of his land reform on, the work of American land reformer, Henry George (Gesell 1936 [1908]: 4, 268, 278). Preparata and Elliott (2004: 946) also point out that Gesell's theory of rent is similarly premised on the classical political economy of David Ricardo. This view holds rent as being the "surplus produce of infra-marginal land where productivity (is) greater than at the margin" (Dobb 1973: 68). Simply put, this means that the variance between yields of mediocre land (or land at the margin, which is the term of comparison) and of land that is more fertile or intensively cultivated would be a positive amount of produce or its monetary equivalent called rent, which, rightfully, had to be remitted to the owner of the more fertile or cultivated land (the infra-marginal land) (Preparata & Elliott 2004: 946). Ricardo observed plentiful land on the fringes of civilisation that could be cultivated, but generated no rent. This he reckoned was due to the pressures exerted by population growth, which forced the cultivation of poor agricultural land out of necessity. As populations expanded, the crops cultivated on this marginal land effected a proportional rise in prices due to the increased effort of having to cultivate non-arable land. Therefore, the profit emanating from higher prices set by harvests from the marginal land accrued to the owners of highly productive and arable land as rent. A potential solution to the spiral of higher prices and excessive rents could be to source produce from colonial producers, but this subjected produce to transport costs which rendered any savings on the cheaper colonial produce meaningless when factored into the production costs (Preparata & Elliott 2004: 946).

Gesell also identified marginal land in his theory, referring to unproductive or marginal land in both Europe and the colonies as "free land". Like the classical political economists, Gesell also observed that the yields on "free land" were taken as the totalling term of comparison for

the estimation of differential gains emanating from more arable or better-located land (Preparata & Elliott 2004: 947). He differentiated between three classes of "free land". "Free land" of the first and second classes represented the cheap colonial acres available for immigrants and adventurers' optimistic endeavours. The second class differed from the first in that it was already owned by proprietors, but was so sparsely populated that the conditions for leasing it continued to be beneficial. To Gesell, rent reduced all the proceeds of labour for all cultivators to the yield which could emanate from un-reclaimed land, whether in the far-off colonies or at home. The proceeds of labour on "free land", be it "wasteland, marshes and moor" (Preparata & Elliott 2004: 947), would define the amount that landowners could claim as rent or pay as wages. In the case of the colonies which produced cheaper crops, owners would see their rents protected by freight and transport costs, and in the case of unproductive land like marshes and swamps that had to be reclaimed to facilitate production, rent would be similarly guaranteed by capital investment, should the land be reclaimed. Should both of these kinds of expense surpass the cost differential of cultivating domestic land and superior, highly fertile foreign land or inferior domestic land, the local or domestic owner would then be able to extract rent (Preparata & Elliott 2004: 947).

The most theoretically important "free land" for Gesell's theory of rent and wages was the third class. This was all available land that was close at hand. By this, he was referring to European land which could be reclaimed and put to purposeful human activity via inventiveness, and such land was both natural, like the swamps, marshes, and hunting preserves, as well as urban, or as he put it in the "sky" in central Berlin, "from the fourth story upwards towards the clouds" (Preparata & Elliott 2004: 947). In cities, he reasoned that all the advantages afforded for social, intellectual and professional life were confiscated by land rent. In this way, rent could be seen as the capitalised version of art, poetry, science and religion, and Gesell noted that the more pleased humans were with their counties and fellow countrymen, the higher were the rents charged by land owners for this pleasure. He postulated that if all relevant services and products were pooled and interest subtracted therefrom, while allocating these services and products according to the preponderant day-wage scale, then everyone would actually receive the products and services they could acquire in markets and stores with their present wages. These comprised the services and products of all merchants, industrial workers, artists, farmers and agricultural workers, physicians, and purveyors of raw materials that could be acquired from areas distant from populous cities, or were free from the advantage of social organisation. The variance between

that amount and the total produce of aggregate work performed made up capital interest and rent (Preparata & Elliott 2004: 947).

Therefore, rent extraction was protected on the one hand by freight and transportation costs, capital investments, and scientific discovery used to convert un-reclaimed land or construct upwards in cities, as well as by the hive of all human activity and creativity stemming from the urban melting pot. Similarly, on the other hand, rent was also dependent on the rate of interest, which afforded it another form of protection. Gesell observed that no matter the type of project undertaken, from construction to land reclamation, the primary question posed was always about the amount of interest required on capital investment. This was then compared with the rents extracted from the same quality of land. Thus, the entrepreneur had to be guaranteed that the amount of rent to be recovered from the site being developed would cover the interest charges that needed to be serviced in order to commence construction. Falling interest rates in effect expanded the amount of land under cultivation and enlarged the amounts of produce generated on the marginal land by virtue of technological and infrastructural development. This, however, would then reduce the amount of cultivated land because of increased productivity and yields, thereby rendering "free land" more accessible. But if interest disappeared, then produce would no longer need to be imported, because as interest levelled off at zero percent, every state would become self-sufficient and no longer require shipments of cereal or grain. In this way, Gesell reasoned that high interest rates cemented the alliance between landlords and capitalists, because as the latter extracted interest, the former benefited from higher rents (Preparata & Elliott 2004: 948).

To Gesell, the only effectual means of abolishing such privileges lay in nationalising land. The whole country would be converted into leasehold farms held privately from the state, freeing the unhampered interplay of initiatives. Public and private land rights would be abolished, and land would be leased to producers and cultivators through public auctions that would be open to any inhabitant of the earth, without exception. Land would be allocated individually according to need, as in smaller lots for small families and larger plots for larger or numerous households, while allowances would be made for commercial and collective endeavours, cooperatives, religious groups and social groups. The current owners of land would be compensated fully for their loss in rents with state bonds, and Gesell conceded that initially, "nobody gains or loses by the redemption of the land" (Preparata & Elliott 2004: 948). The interest on the state bonds that would be paid to proprietors instead of their estate

rents would be made up of the rents the state received as sole proprietor of the land. Thus, Gesell's strategy was the reform of land with "free land" and monetary reform with "free money", both with the aim of gradually lowering the interest rate, while decreasing the remitted amounts to the new holders of state bonds, or the legally dispossessed landlords. When interest bottomed out at zero percent, the collected surplus in the form of rents would emerge as a net gain and would de-cumulate across the whole society. In this way, new possessors of land would be unable to take unearned profits from their households, since high agricultural prices are indicative of high rent, which would be appropriated by the treasury (Preparata & Elliott 2004: 948-949).

Gesell's reforms also made provision for the surge in agricultural prices that stemmed from the competition for land at the introduction of "free land". He reasoned that this would not entail any losses for private owners, as any advantage obtained from price surges would be calculated by the treasury in the collection of higher rents, and this would then be then re-circulated in the economy, thus correcting any losses of purchasing power in the community (Preparata & Elliott 2004: 948). To Gesell, land reform necessarily had to accompany monetary reform, since "free land" bore an influence on product distribution. But because economic crises and unemployment are problems of exchange and trade, and not issues of distribution, Gesell's land reforms had to be accompanied by monetary reform (Laubisch 2013: 11).

2.1.8 The International Valuta Association

Gesell also proposed an international monetary organisation, or what he referred to as the International Valuta Association (IVA). This union would function as a central bank for central banks, superior to all national central banks and with a mandate to regulate both currency standards as well as exchange. All states wanting to participate would trade a bill of exchange in receipt of IVA paper money. This international currency should, in Gesell's opinion, constitute about twenty percent of a participant nation's money supply (Laubisch 2013: 11). Member states could thus practice independent monetary policy attuned to IVA standards. If a nation's monetary supply increased, causing a spike in the inflation rate and a rise in prices, that state would experience lower competitiveness in domestic product sales. This would cause a deficit in that state's current account and thus the IVA would increase the

amount of IVA notes issued to that state. In this way, every decrease or increase in prices of participating states would trigger an inflow or outflow of IVA notes in that state, leading to adjustments in price level. Likewise, where the increased national money supply results in the dispersion of IVA notes in country, an equalized balance of trade would no longer be possible, and the IVA would only issue new notes to that state with an additional charge. This would entail a withdrawal of the national monetary supply and result in a decrease in prices, leading to an equalised balance of trade (Laubisch 2013: 12). In a much simpler way, Gesell was essentially pre-empting the theorisation of Friedman (1953), Robert Mundell (1961) Kenen (1969) and McKinnon (1963) regarding national balance of payments between states or regions and their ability to respond to shocks via reallocation of resources or adjustments in exchange rates. This carries the obvious caveat that in Gesell's thought, the stabilisation of international exchanges should not be achieved with the internationalisation of the entire money supply, but rather Gesell sought to endow a small portion of banknotes (twenty percent) with international validity (Laubisch 2013: 12).

2.1.9 The legacy of Gesell's theories

To summarise "The Natural Economic Order" (1936 [1908]), Gesell recognized that money is endowed with no carrying costs, which was something that he reckoned was attributable to the idiosyncratic nature of money related to real capital and commodities. He therefore postulated that since money could be hoarded free of any losses, it facilitated the extraction of rent or tribute from the supply side. In this way, Gesell considered interest to be a purely monetary phenomenon, and furthermore, he noted the ability to hoard money could result in aggregate demand falling below aggregate supply, which would impede the growth of the capital stock in an economy. Thus, to Gesell, the essential determining factor of economic activity was capital, and the solution for reforming the monetary system and ridding it of imperfections was to be found in stamped or decaying "free money" (Ilgmann 2011: 17-18).

However, there are numerous aspects of Gesell's theory which are highly problematic or plainly wrong. He simplistically based his theory on money having no carrying costs, and his assertions that competition between money lenders did not exist and that the basic interest at all times amounted to an empirically assessed four or five percent are clearly incorrect (Ilgmann 2011: 18). Similarly, as a result of his faulty micro-economic foundations, Gesell's

macro-economic analysis lies on shaky ground, devoid of a micro-foundation for aggregate supply, which he simply considered as exogenously given. In consequence, Gesell believed that once the monetary advantage was removed in terms of storage costs, money would become neutral and that supply and demand would reach equilibrium, as classical theory had predicted (Ilgmann 2011: 18).

At the same time, Gesell's achievements, especially in consideration of his autodidactic standing, are quite remarkable. At a time when most currencies were backed by precious metals and "gold fetters" firmly entrenched in the formal academic and policy realms, Gesell boldly advocated modern fiat money. His pursuit of price stability as the sole responsibility of monetary policy was similarly far ahead of its time and is not far removed from the contemporary mandates of modern central banks (Ilgmann 2011: 18). Similarly, although departing from a very different perspective, Gesell was clearly also deliberating on issues of international exchange and economic crisis that would characterise the optimum currency literature of the 1960s and contribute to the establishment of the European Union. Although there are no formal links attributing the emergence of such thought to Gesell, he clearly was theorising along similar lines to the likes of Mundell (1961) Kenen (1969) and McKinnon (1963) in terms of factor mobility between regions in considering international exchange flows.

Furthermore, a number of Gesell's ideas are quite proximate to those of Keynes, and are clearly part of an academic tradition in monetary economics. Many of his ideas were shared and embraced by the dominant theorists of his day and he received critical acclaim from noted economists like Keynes and Irving Fischer. Keynes agreed with Gesell that the "result of filling in the gaps in the classical theory is not to dispose of the 'Manchester system', but to indicate the nature of the environment which the free play of economic forces requires if it is to realise the full potentialities of production" (Keynes 1936: 356). Similarly, Keynes also observed that the notion of liquidity preference had escaped Gesell, resulting in only half a theory of interest (Keynes 1936: 356). In this way, Keynes thought that Gesell's "free money" would not cure society of the economic ills of capitalism, despite its usefulness in times of economic crises as a means to overcome the zero bound on nominal interest rates (Ilgmann 2011: 25). This limited embrace of Gesellian reform is further evidenced by Irving Fisher's attempts to persuade President Roosevelt to experiment with stamp scrip (Fisher

1933), a form of Gesellian nationally accelerated money that depreciated at a rate of two percent per week (Blanc 1998: 476).

Correspondingly, Gesell's argument that interest is purely a monetary phenomenon clearly touches upon a valid argument. Even contemporary mainstream economists would have to concur that many of Gesell's reforms were far ahead of their time. In this way, Ilgmann (2011: 25) points out that Gesell probably deserves far more credit than academia has traditionally afforded him.

2.1.10 WÄRA, Wörgl and WIR: Early Gesellian money in practice

Though largely forgotten and ill-considered inside of the formal policy and academic realms, Gesell's ideas did live on after his death in March 1930 (Ilgmann: 2011: 8) in the informal institutional sphere. The town of Schwanenkirchen in Germany can stake a claim as being the first location where a Gesellian complementary currency was attempted in the same year. The currency had been established a year prior by Hans Timm and Helmut Rödiger, with the stated aim of combatting unemployment and the market stagnation that plagued interwar Germany. Thus, the WÄRA-*Tauschgesellschaft* or "exchange society" began circulation of WÄRA notes to more than a thousand companies in Germany which, themselves, began exchanging these notes with private individuals. WÄRA notes depreciated at rate of twelve percent per annum or one percent per month to disincentivise hoarding. Each note had a dozen boxes on the back, in which a monthly stamp (or one percent of face value) had to be affixed to maintain its validity, and participants in possession of a note had to purchase these stamps to ensure the face value of the note for use in the next month (illustrated in figure 3.1) (Laubisch 2013: 38).

An experiment in Schwanenkirchen with WÄRA resulted in global renown for the currency. In 1930, the owner of a local coal mine, Dr. Max Hebecker, began to pay ninety percent of his employees' wages in WÄRA, backed by the coal they were mining. The other ten percent of their wages were paid in *Reichsmark*. These WÄRA similarly had boxes on the back for stamp fees which went to covering storage costs. They were likewise deflationary, as their value was tied to the value of coal. Circulation in Schwanenkirchen gained momentum and the local economy began to recover, reducing unemployment and encouraging a greater

circulation of WÄRA, which stimulated a steady sales volume for goods. This currency actually became the centrepiece of a free currency movement, which based its theory on Gesell's works. Despite great initial promise, WÄRA was, along with other alternative currencies, prohibited under German law by the finance minister, H. Dietrich, in October 1931 (Laubisch 2013: 39).

Figure 2.1: WÄRA note affixed with stamps to maintain circulatory validity
Source: Laubisch (2013: 75)

A year later, in 1932, the Austrian town of Wörgl conducted another famous experiment with "free money" reform. Wörgl was, at the time, a small town with a population of just over four thousand inhabitants. Like most post-depression European towns, Wörgl had an exceptionally high unemployment rate and as a result, tax levels were dramatically low. The town's mayor, Michael Unterguggenberger, was familiar with Gesell's theories and had similarly heard about Schwanenkirchen's successful experiment with WÄRA. In an attempt to ameliorate the state of Wörgl's economy, Unterguggenberger persuaded the municipal administration and local businesses to attempt a monetary experiment as outlined in Gesell's "*The Natural Economic Order*" (Gesell 1936 [1908]). Municipal employees' wages were

paid in depreciative local currency (Thiel 2011: 18) and numerous local shops and industries agreed to accept this money as a means of payment (Laubisch 2013: 39). The "*Arbeitswertschein*" or stamp scrip rapidly circulated and quickly became accepted as a general instrument for payments. This issued "free money" was backed by equivalent amounts of Austrian Shillings which were exchanged and deposited. The Wörgl stamp scrip only maintained its value if the possessor of a note fixed a stamp valued at one percent of the notes value every month (see figure 3.2), and if any resident hoarded a note during its twelve-month circulation, that note could only be re-circulated once the outstanding stamps had been purchased and affixed to the note. Consequentially, the hoarding fee or demurrage charge of Wörgl stamp scrip amounted to twelve percent per annum, while the cost of re-exchanging Wörgl stamp scrip for Schillings amounted to a two-percent exchange fee (Laubisch 2013: 39-40).

Wörgl's "*Arbeitswertschein*" experiment was a massive success. Employees who were paid in stamp scrip spent the "free money" rapidly, quickly providing capital and work for other inhabitants of the town (Laubisch 2013: 40). Residents even payed their taxes early in order to evade the carrying fees associated with depreciative money. In one year, Wörgl's unemployment rate witnessed a twenty-five percent reduction, at a time when the rest of Austria saw unemployment increase by ten percent. Additionally, the currency facilitated the undertaking of public works projects like the reconstruction of the town's water system. The currency worked so well that a number of Austrian towns began to copy Wörgl's experiment. However, by 1933, the Central Bank of Austria had become concerned about its monopoly right, and in November of that year, Austria also prohibited alternative currencies (Laubisch 2013: 40). Monetary experiments of this type were not limited to central Europe after the Great Depression; the Romanian town of Media introduced a certificate deposit system in 1933, while Japan similarly witnessed the establishment of Labour Banks which issued local currency (Tóth 2011:70).

Figure 2.2: A Wörgl Schilling with demurrage stamps affixed
Source: Laubisch (2013: 76)

The following year, in Switzerland, the same post-depression conditions that gave rise to currency experiments in Schwanenkirchen and Wörgl led to the establishment of the "*Wirtschaftsring-Genossenschaft"* or "economic ring" (WIR). Founded in Zurich in 1934, the WIR is the oldest uninterrupted complementary currency system in the modern western world (Laubisch 2013: 57). WIR's founders, Werner Zimmermann and Paul Enz, were not only great supporters of Gesell, but also rather farsighted in their own reform ideas (Defila 1994). Zimmermann published papers supporting women's liberation and Gesellian "free land" and, later, pondering of the costs and benefits of nuclear energy, while publically speaking out on issues of deforestation and water pollution as early as 1935. Enz managed an organic food store in Zurich, and in 1931 founded a horticulture cooperative and settlement intended to care for and promote the ethical and physical recovery of the nation (Defila 1994). Their idea for WIR merged Gesell's monetary ideology with a circular exchange system model that the pair had encountered on two trips to Scandinavia and the Baltic, where such clearing and exchange organisations were already in operation. In German, "*wir*" means the same as the plural pronoun "we", accentuating the solidarity and communal intention behind the currency (Dini & Kioupkiolis 2014: 5). Functionally, WIR is a centralised credit system of multilateral exchange that circulates no physical currency, but issues WIR credits for goods and services which other participant members exchange for WIR. WIR thus refers

to both the currency itself and the multilateral circular network, while the value of a modern WIR is nominally equal to one Swiss Franc. This WIR credit is comparable to Swiss Francs (CHF), but not redeemable in CHF. Dini and Kioupkiolis (2014: 6) liken WIR to a "multilateral corporate barter exchange system", while a similarly practical analogy has been suggested by Stodder (2009: 3), who pointed out a comparable universal reliance in the private sector by large firms on the use of trade credits, as observed in Petersen and Rajan (1994, 1997).

In post-Depression Switzerland, banks were tight-fisted with their credit and many small businesses could not obtain bank loans because of the lingering financial crisis (Laubisch 2013: 57). At the inception of the system, WIR was structured somewhat differently, closer to Gesell's system of "free money", circulating with a demurrage fee. Members would join and create accounts, paying in cash and receiving credit, which, once created, also endowed the recipient with a five percent bonus. This interest-free credit afforded small- and medium-scale businesses extra buying power, which began to generate an improved turnover of goods and services. The circle grew rapidly, and by 1935, it listed more than one thousand accounts (Defila 1994). Contemporarily, the WIR system functions quite similarly to a bank, carrying out credit checks on potential members, resulting from a series of reforms that commenced in 1940. Those same restructurings brought WIR under Swiss law, and accordingly WIR is a bank, concomitantly providing other financial services in Swiss Francs. Demurrage was abandoned in 1948, as the early personification of the network nearly collapsed owing to a scarcity of collateral that was induced by large negative balances (Dini & Kioupkiolis 2014: 6). This was replaced by the issue of credit at zero or low interest rates on large loans, which began being charged in 1952 (Dini & Kioupkiolis 2014: 6). This evolution still optimises the monetary function of media of exchange, since credit is comparably cheap and savings are not awarded interest. Similarly, though not endowed with a demurrage fee any longer, hoarding is not viable, as exchange and payment can only occur with other members of the system who accept WIR as a form of payment (Laubisch 2013: 58). In 1973, a final architectural reform to the WIR bank system introduced the prohibition of discounting, thereby ending the exchange of WIR credit for CHF beyond accounting purposes, as this practice tended to lead to speculation and devaluations in the value of WIR (Dini & Kioupkiolis 2014: 6).

WIR also differs from the conventional universal trade credits used by private firms in two ways. In contrast to trade credits, WIR is a final means of payment. Similarly, since the WIR circle is a multilateral credit system, a creditor's value is not determined by the debtor's inclination to settle their accounts in cash, but rather, this is dependent on the multiplicity of small businesses and firms that accept WIR as a form of payment (Stodder 2009: 3). Unlike the case with state money, Stodder (2009) demonstrates a negative correlation between WIR and Gross Domestic Product (GDP) in the short term and a "deeply acyclical" demeanour in relation to the national monetary supply (Dini & Kioupkiolis 2014: 6). Essentially, this means that in times of recession, when there is less national currency, WIR increases its turnover. This is believed to insulate the Swiss economy and provide stability (Dini & Kioupkiolis 2014: 6), smoothing over the business cycle fluctuations and facilitating an accessible channel of credit and exchange for small- and medium-scale businesses, and in times when banks tend to ration the credit these businesses rely on in their roles as both customers and distributors (Stodder 2009: 3). The size of the WIR system is subject to some speculation, but between 1993 and 2003, this number seems to have averaged around 80 000 members, representing a figure of around two percent of Swiss businesses (Dini & Kioupkiolis 2014: 6). Moreover, based on 1993 statistics, the average acceptance for WIR credit on purchases was forty percent. Therefore, the yearly turnover of two and a half billion WIR corresponds to a turnover in CHF of about 5.25 billion. In terms of national GDP, this is a relatively small number, and WIR has tended to fluctuate between 0.5 and 1 percent of Swiss GDP for the last half a century. However, when compared with other complementary currencies, this figure is gargantuan, or in a different class all together (Dini & Kioupkiolis 2014: 6).

2.2 Conclusion

This chapter began with the aim of seeking out an ideology that would be largely consistent with the alternative theoretical paradigms of money described in Chapter 3 and coherent with Simmel's search for a "third way" for theorisation beyond the dominant narratives that characterise discourse on monetary, social, political and economic governance presently. Thus, following on from Graeber's (2014) fundamentally anarchist analysis of debt as a key factor in the evolution of money, which is itself based on the works of Mitchell-Innes, Knapp, Wray and Ingham, the chapter proposed the mutualist anarchism of Pierre-Joseph Proudhon as a suitable starting point for this endeavour. Indeed, upon reflection, this

ideological and analytical tradition is clearly quite consistent with many of the observations of debt theorists. Both Proudhon and Gesell placed greater importance on the role of money in the structuring of an economy and its constituent society or institutional base than any orthodox theorists, like debt theorists, have. Similarly, many of these theorists began from the observation that monetary economies differ substantially from the barter economies that orthodoxy assumes. Both Proudhon and Gesell similarly indicate a functional consistency with Simmel's assertion that "money is only a claim upon society" in so far as both theorists attempted to implement solutions to rectify the source of the social problem emanating, as contended, from monetary institutional arrangements via socialisation in production and capital.

Furthermore, both theorists were attempting to liberate the forces of competition from the extractive and rent-seeking forces that would hinder human progress in the name of private accumulation. Rather, both theorists could be seen to be attempting a rectification of the inadequacies of capital and capitalism, and in Gesell's case, this reform exploited the self-fulfilling behaviour of individuals by disincentivising hoarding and saving, which would in turn accelerate monetary circulation and improve economic conditions, when introduced with land reforms. Clearly, both philosophers presented good theoretical analyses, but with some misgivings and faulty assumptions, with the result that both formal academic and policy institutions passed this body of work over. However, the most fascinating aspect of the mutualists is that, despite this formal institutional ignorance, the informal institutions that generate formal rules of conduct and interaction continued to implement and experiment with alternative monetary reform in various public and communal settings, in multitudes of countries. Indeed, as the next chapter will elucidate, the end of the twentieth century has witnessed a veritable frenzy of "alternative" currency experiments, influenced in no small part by increases in global monetary instability.

3. Chapter 3: Case studies; modern complementary currencies and cryptocurrencies

> "The choice of a measure of value, of a monetary system, of currency and credit legislation – are all in the hands of society, and natural conditions … are relatively unimportant. Here, then, the decision-makers in society have the opportunity to directly demonstrate and test their economic wisdom – or folly. History shows that the latter has often prevailed." – Knut Wicksell

> "… so tonight, we're going to talk about cryptocurrencies: everything you don't understand about money, combined with everything you don't understand about computers." – John Oliver

3.1 Introduction

The free money or "*Freigeld*" movement (Thiel 2011: 18) that emerged around Gesell's ideas in the post-depression monetary experiments of Germany and Austria was prohibited under the Nazi regime, re-emerging in the 1950s as a rather nationalistic and dogmatic political party with only marginal support during the post-war recovery years. The following decade, however, deeply affected the "*Freigeld"* movement as it began amalgamating with new, emerging social movements like that of Austrian anthroposophist, Rudolf Steiner. This highly esoteric movement was strongly rooted in local, social organisations, which had some important implications for *"Freigeld"* ideas (Thiel 2011: 19).

Steiner's anthroposophy reverberated with a similar concept of monetary reform to Gesell's "free money", and Steiner advocated an "aging money" (Thiel 2011: 19) that, once issued, should attain certain qualities in accordance with its age, such as purchasing money or lending money and, later in its life cycle, donating money. This conceptual coupling of "aging money" with the Gesellian "*Freigeld*" feature of monetary decay facilitated the inclusion of anthroposophical ideals of democratically governed and charitable money, along with other utopian ideals and tenets of social movements that emerged after the 1960s, like the ecologically principled 'rusting money', anti-capitalist groups, the peace movement, and feminist movements – resulting in the amalgamation of their objectives into a "new" form of "*Freigeld*" or "*Regiogeld*" (regional money) (Thiel 2011: 19). In this way, the designation

"*Freigeld*" is maintained in modern use, along with the synonymous use of names like "*Schrumpfgeld*" (shrinkage money), "*Regiogeld*" and the more common "*Schwundgelder*" (depreciative moneys) (Rösl 2006: 6). Thus, at the end of the twentieth century, Germany experienced a second wave of complementary currency movements that also began focusing reform experiments on local and regional scale, further diversifying the pool of alternative monies and departing from the Gesellian feature of national monetary reform (Thiel 2011: 19). In this way, many modern incantations of complementary currencies have kept the spirit of Gesell in the DNA of their architecture and merged this with anthroposophical notions of localised, self-determined autonomous and democratic governance, while also assimilating ecological and economic concerns about environmental and economic-institutional sustainability. Indeed, in modernity, the establishment of complementary currency systems is generally undertaken with specific social, environmental or economic concerns in mind (Michel & Hudon 2015; Seyfang & Longhurst 2013: 67-68).

The currencies that this chapter will then consider all adhere to the ideas and principles of Gesell, to varying degrees. In most cases, this is structural, and somewhat implicit, while other examples display more of a direct Gesellian heritage, as in the already considered case of WIR. They are similarly bound in scholarly study by the epithet "complementary" (or sometimes "community") currencies. This refers to the complementary or concurrent nature of their existence, in parallel or counterpart to national fiat currencies (Pfajfar, Sgro & Wagner 2012: 46; Seyfang & Longhurst 2013: 65; Ruzzene 2015: 82). This distinction is analytical and also conflicting with pure Gesellian theory in many ways, but also indicative of the flexibility of modern complementary currency movements to adapt to, and survive sustainably with, instances of scarcity, crisis and depression, as characterised by the early Gesellian monetary experiments being carried out on a local scale, which Wörgl's "*Arbeitswertschein*" and Schwanenkirchen's WÄRA (Laubisch 2013: 39-40) did so successfully.

'Complementary' is thus a label referring to a non-national currency that is issued and exchanged within an economic sector, community, association or group and which circulates and functions as a means or instrument for the payment of services and goods (Laubisch 2013: 42). Seyfang and Longhurst (2013: 65) observe that a common purpose of these parallel money systems is the provision of a means of exchange and the creation of new circuits of value. They similarly point out that these systems come in a variety of forms,

ranging from business-to-business (B2B) credit schemes to community barter markets, and note that within the broader family of complementary currencies, the sub-set known as "local currencies" have been promoted as new monetary formats that could foster and inform the future of sustainable development at a formal institutional level. The reasoning behind this is a perception that money is a socially constructed institutional phenomenon, and that alternatives to the dominant form of exchange can, via the circles of exchange provided or communal forms of credit created, along with financial services offered, begin to construct more sustainable structures and incentives for society than traditional fiat has done (Seyfang & Longhurst 2013: 65).

It is hardly surprising, then, that most of these local currencies are based on or draw inspiration from the post-depression monetary experiments in Wörgl and Schwanenkirchen. Furthermore, this naturally infers the influence of Gesell's theories on the alternative currency movements, despite some functional evolutions which ensured the practical survival for the currency systems, as in the case of WIR. A result of these evolutions and the inclusion of other social groups into the "*Freigeld*" movement, like green, social feminist and "new economics" movements, is that the modern aim of community currency movements is no longer the pursuit of outright monetary reform. Rather, these movements strive to deliver functionality and services that governmental fiat or cash cannot, by containing the local monetary circulation and providing additional liquidity in times of depression or in regions that are cash-poor. Resultantly, these currencies enable communities to meet their material needs and provide relief to labour in times where this would suffer cutbacks (Seyfang & Longhurst 2013: 66). Pfajfar, Sgro and Wagner (2012: 46) subsequently also observed that complementary currency movements tend to ascend in times of depression and financial crisis, or whenever governmental fiat is unable to fulfil all of its functions.

Contemporarily, complementary currencies include forms that operate on national, regional and local levels, and difficulty is often experienced in locating a currency within typological categorisations (Blanc 2011; Martignoni 2012). No complementary or local currency system is identical to another and none exists in the pure or idealised "free money" form that Gesell envisaged. Almost all complementary currencies function with a fixed or administered interest rate, with sufficient reserves of exchanged national fiat as backing, which provides the participants and organisers with the impetus to promote and embed localised trade (Schroeder, Miyazaki & Fare 2011: 33). This monetary barrier around local markets

functions as kind of local economy. Interestingly, this pursuit of regional or localised economic objective starkly contrasts with Gesell's original theory, which favoured open, free trade (Rösl: 2006: 7). Monetary turnover is encouraged with loans of surplus income from third parties, new issues, or the exchange of fiat money (Groppa 2013: 48), which locally redistributes and employs idle capital and, in some cases, this is still achieved by the retention of the Gesellian feature of negative interest. Thus, many local currencies incur a demurrage fee to disincentive hoarding, which concurrently encourages the use of the currencies in the local economy (or a high velocity of circulation). In times of depression or scarcity, this increases the amount of money in a local economy and stimulates exchange in the region, while similarly elevating price levels in periods characterised by deflation (Godschalk 2012: 60-61). This enduring Gesellian feature of complementary currencies makes their implementation an attractive option for local groups, as early exponents found in Wörgl and Schwanenkirchen, because complementary currencies exhibit a counter-cyclical relation to external shocks, closing off the local market to external constraints and drains on capital, while promoting and protecting local production and labour (Groppa 2013: 51).

3.2 Complementary currencies

Estimates of the total number of complementary currency systems worldwide vary considerably and suffer from the lack of up-to-date, conclusive and authoritative mapping studies. In the 1980s, the global total of complementary currency systems numbered only around 100 (Laubisch 2013: 44). The rapid growth of these movements in the 1980s and 1990s took this number to around 4 100 by 2003 (Laubisch 2013: 45). The first international study into the character and scope of complementary currency movements (see figure 4.1), worldwide, identified 3 418 operational projects in 23 countries functioning at a local level, and 39 projects which operated at a national level, that fit the defined criteria of a complementary currency (Seyfang & Longhurst 2013: 69). These definitions rest on established categories within the practice and literature on complementary currencies, and distinguish four major types of complementary currency, namely service credits, local currencies, mutual exchange systems, and barter markets (Seyfang & Longhurst 2013: 69; Michel & Hudon 2015).

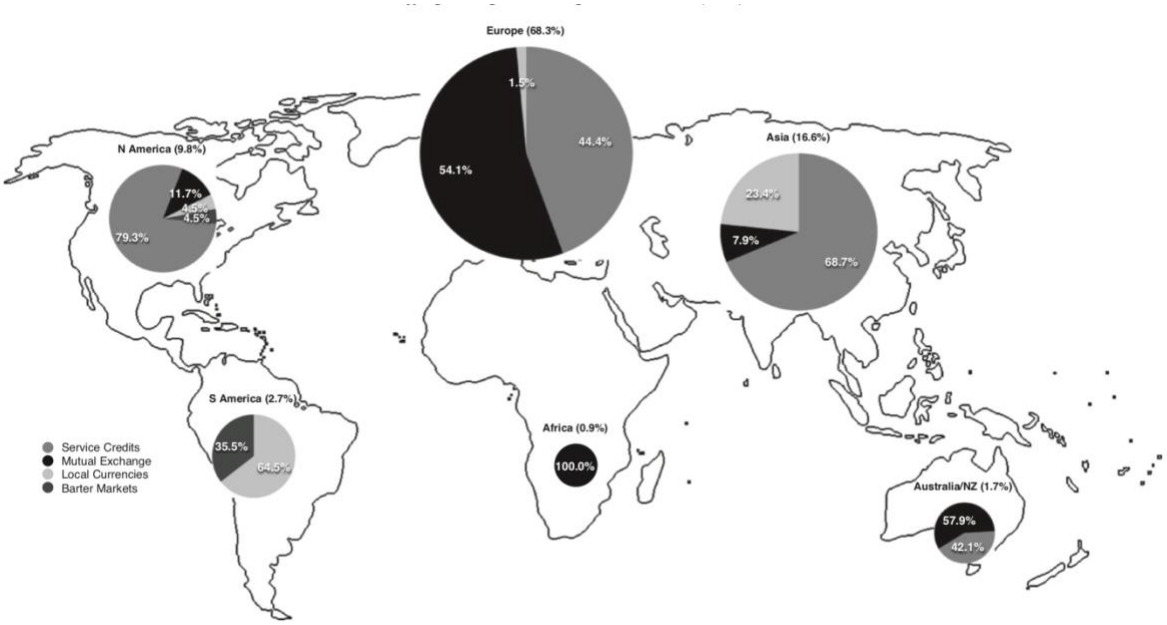

Figure 3.1: Geographical distribution of complementary currencies by type and region in 2012
Source: Seyfang & Longhurst (2013: 72)

The examples discussed in this section represent some of the most prominent and well-known examples cited in the literature. Table 4.1 displays an overview of their aims, functions and operationalisation within the communities and regions wherein they circulate. Their successes and shortcomings are then discussed in context to the search for a "third way" for monetary theorisation and governance.

Table 3.1: Case studies of the four major types of complementary currency

Identification	Aims	Operationalisation	Other examples
Service Credit **Case Study:** *Fureai Kippu* (Japan)	Strengthen local inclusion and cohesion while building on social capital via the reward of community-based activities like social and elderly care or neighbourly support, formalising this work as reciprocal volunteering Assisting elderly and disabled population demographics to maintain and improve their wellbeing and healthcare	Members register and list the services they wish to receive and provide. A central broker connects members to arrange the exchange of services. Basic unit of account is an hour of service - credited and debited electronically - no physical notes exchanged Credits can be used in official health insurance programmes, and saved or transferred to another individual of their choosing Little centralised authority and differing models of how transactions can be made for services Remuneration can be time based or mixed between credit of time and Yen (lower than average minimum wage for the region)	Brazil: Curitiba USA: Time Dollars
Mutual exchange systems **Case Study:** Local exchange trading system (LETS) (Canada)	Operate within a defined geographical area. Provide participants with interest-free credit that can be spent within the locally established trading circle. A self-regulating network that allows users to both manage and issue their own money supply within the boundaries of their community, with the LETS administration providing and maintaining the service for its users LETS systems function on a not-for-profit basis Account holders are the decision makers, exerting control over the movement of money out of and into their accounts. The information of all accounts must be available to any individual account holder. Provision of convenient measure of value. In this way, the unit of account must be equivalent to, but not convertible to, the national fiat. Stresses the individual autonomy of participant members, stating each member is sovereign in ownership of their money and thus no interest is paid or charged on account balances.	Mutual exchange systems or schemes are created in the act of spending, or put differently, one member's debt to the system is another member's credit. Participant accounts always sum to zero and the currency's utility and value is preserved by participants' mutual trust in their fellow members' ability to meet their obligations, as debts to the system are known Participants advertise "offers" and "wants" in a local directory and a central accountant then records the transactions. The exchange system can link the value of its currency to the national fiat or make use of a time-based system, or a mixture of both national currency and time values Not convertible to national money. This creates a closed circuit between production and consumption. Provision of additional, interest-free liquidity and credit in a localised setting also encourages import substitution and is said to strike a balance between social and economic objectives Closed economic circuit and localised, geographical emphasis has also proven useful in assisting rural communities' economic development by promoting locally oriented economic activity (production, consumption and re-use) and preventing capital leakage associated with outward orientated activities (production for domestic and foreign export)	Belgium: RES Sardinia: Sardex Switzerland: WIR France: SEL Mexico: Tianguis Tlaloc

Identification	Aims	Operationalisation	Other examples
Local currency **Case Study** *Chiemgauer* (Germany)	Geographically bounded, paper-based, local currencies that are backed by and, in most cases, convertible to national fiat. Some function as local exchange vouchers that can only be exchanged with certain participating local businesses. Aimed at complementing the national currency by increasing the velocity of local exchanges, but not supplanting inter-regional trade nor the national currency. Business participation demands security assurances, so forgery-resistant notes are printed at traditional currency printers. Attempt to deal with local sustainability, social, economic and environmental development goals Aim is to strengthen the local economy while encouraging import substitution and reducing the transport costs associated with imports. Increase and promote local cooperation and identity via the facilitation of funding for local community and non-profit projects	Generally brought into circulation via exchange for Euros and its value maintained via the purchase and affixing of a stamp which maintains the validity of circulating notes for a specific time, incurring the demurrage fee or negative interest on the note *Chiemgauer* are exchangeable to Euros at a 1:1 ratio and are similarly re-exchanged back to Euros on demand at 95 cents to a Euro. The remaining five cents is split between a contribution to the expenses of vendors and a provision of the community donation function, where three percent is donated to a community or regional group, school, organisation or club of the consumers choosing Allows the local money system to promote and assist local organisations without incurring any additional costs to consumers or vendors, increasing the value to consumers. A cashless, electronic *Chiemgauer* (*eChiemgauer*) was introduced in 2006, processing high transaction numbers, simplifying clearing, and cooperation with other local financial institutions. This further diminishes administrative costs for the system maintenance while also serving as a good promotional means which attracts new users The volume of money is controlled independently, in the case of *Chiemgauer*, this is democratically decided by the board of directors which runs the "Chiemgau Regional"	USA: Ithaca Hours Germany: Bremer Roland Landmark Kann Was Grießen-Justus Urstomtaler Hallertauer Regio im Oberland Carlo Berliner VolmeTaler Buergerbluete UK: Brixton pound Totens Pound
Barter market **Case Study** *Redes de Trueque* (Argentina)	Barter markets are an amalgamation of mutual exchange and local currency, providing participants with new infrastructure for the exchange of services and goods within a site-specific, limited event that does not require the need for any national currency The idea behind the first "*Club de Trueque*" was to simply make use of unproductive plots of land in the neighbourhood for weekly meetings or markets where idle resources, like time available to unemployed persons and skills not valued by formal markets in terms of demand, could merge In this way, members attempt to bypass monetary scarcity by exchanging homemade goods, products and services, slowly reconnecting and localising consumption and production	Strictly speaking, no barter is actually involved as exchange occurs via physical scrip known as *créditos* Generally, individuals join a local club which issues them with what amounts to an interest-free loan, distributing to new members some local currency that can be used to trade with other club members regularly at dedicated markets *Créditos* are money managed and issued by communities, a fully social construction by groups seeking actively to reconstruct their local economies as institutional processes, thus attempting to recreate markets and money and the associated rules and regulations for individual action	Peru: *Chalayplasa* network

3.3 The formal institutions of tomorrow?

Service credits are the most pervasive form of complimentary currency, accounting for 50.2 percent of the global total (or 1715 identified projects) in four continents, across eleven

countries (see figure 4.1) (Seyfang & Longhurst 2013: 69). They attempt to strengthen local inclusion and cohesion while building on social capital via the reward of community-based activities, like social and elderly care or neighbourly support, and formalise this work as reciprocal volunteering. The most common form of service credits are known as time banks, although not all systems ascribe exactly to this formula or are part of the international time banking network. The earliest examples emerged in Japan in the 1970s and were known as "*Fureai Kippu*" (or "Caring Relationship Ticket") (Seyfang & Longhurst 2013: 69; Laubisch 2013: 63). Similarly, in 1986, Edgar Cahn established his idea for "time dollars" (Seyfang & Longhurst 2013: 69) in the USA, which aimed to make use of underutilised resources and skills in deprived areas and neighbourhoods in such ways that would rebuild the communities, while restoring dignity to these socially and economically excluded areas. The time banking model grew and spread out across the USA. By 1997, with assistance from the New Economics Foundation and David Boyle, time banking traversed the Atlantic, establishing itself in the UK. This allowed the UK and US networks to develop best practice policy guidelines and assist in the establishment of new time banking projects in Canada, Finland, New Zealand, Japan, Portugal, Spain and Italy (Seyfang & Longhurst 2013: 69).

In Japan, *Fureai Kippu* have proven highly successful and cost effective in alleviating healthcare burdens for both the state and the elderly population who were often burdened with these expenses. The *Fureai Kippu* represent a significant reduction in the expenditures of society, and of the Japanese Government, on the costs of elderly care, and improve the quality of life for handicapped and elderly people. Participants also increase and maintain their individual autonomy in times where this would be diminishing. Similarly, elderly participants to the system prefer the provision of services by *Fureai Kippu* volunteers over normal care-based services charged in Yen because of the greater personal connections the service credit system can offer (Laubisch 2013: 64). In this way, service credits have successfully found a middle ground between state-run services for marginalised people and the more traditional forms of communal assistance often excluded from formal economic activity.

The second most common type of complementary currency are mutual exchanges, which make up 41.3 percent of the global total (or 1 412 currency systems) across five continents, in fourteen countries (see figure 4.1) (Seyfang & Longhurst 2013: 69). This form of localised, geographical emphasis has proven useful in assisting the economic development of rural

communities by promoting locally oriented economic activity (production, consumption and re-use) and preventing capital leakage associated with outward-orientated activities (production for domestic and foreign export) (Williams 1996: 242). Furthermore, a 1995 survey of English-speaking industrialised nations found that significant portions of Local Exchange Trading Systems (LETS) operate in rural areas, with 59.6 percent of Australian LETS being active in rural areas, and similarly, with 45.7 percent of LETS in the UK and 40 percent of LETS in New Zealand functioning in rural areas (Williams 1996: 231).

LETS membership also offers unemployed workers access to reconstructed networks, which affords them professional information, like job opportunities, and assists in maintaining employability. Formal incorporation of an activity into a LETS affords a member the opportunity to develop a client base that could develop into a micro-enterprise, evolving from self-training into self-employment (Della Puerta & Torre 2015: 33). An Argentine study found that more than half of the 140 respondents had formally tested their activity from a LETS in the formal economy, with 28.5 percent of these still active a year later (Gómez & Helmsing 2008). The drawbacks of the scheme are exposed by participants' inability to record transactions and their ignorance of the functioning of the central administration. Similarly, LETS schemes also suffer from the failures of the sociality that they aspire to, as they rely heavily on volunteer staff and can be subject to administrative failure or personal biases (Lee, Leyshon, Aldridge, Tooke, Williams & Thrift 2004: 610). Likewise, trust between the users of mutual exchange currencies declines as the networks grow larger, limiting their potential range of utility as a medium of exchange (Friis & Glaser 2018: 72) and undermining the currency systems credibility, which is then vulnerable to opportunistic behaviour by members (Schraven 2001: 3). Indeed, such circumstances are attributed to the 1990s collapse of the Baytown LETS in Australia. In terms of outright economic value added, contributions by LETS are marginal, and not nearly as strong as systems like WIR are. In Germany, for example, since the introduction of LETS systems in the 1990s, the rate of growth among new LETS has slowed, despite an initial surge. By 2004, their total macroeconomic contributions amounted to less than fifteen million Euros, annually (Rösl 2006: 17). Despite this modest contribution, LETS schemes and systems have had great success in marginalised communities and regions that are subject to economic crises and suffering large-scale unemployment.

The most direct descendants of Silvio Gesell's "*Freigeld*" are local currencies, and a good portion of the literature refers to these currencies as regional, from the German term "*Regiogeld*" (regional money) (Rösl 2006; Laubisch 2013), although the German free economy literature distinguishes between local and regional, based on the size of the network. Regional currencies are said to include those with participant numbers between two thousand and a critical number of up to a million potential users, while local currency systems could have up to a thousand participants (Laubisch 2013: 47).

By 2013, there were only 243 local currency projects, altogether, accounting for only 7.1 percent of global complementary currencies. These were spread across four continents in six countries (see figure 4.1) (Seyfang & Longhurst 2013: 70; Michel & Hudon 2015: 5). Contemporarily, regions and cities have circulated local currency notes to enhance the local economic multiplier and support local businesses. Some function as local exchange vouchers that can only be exchanged within specific areas or with certain participating businesses. Local currencies attempt to complement the national fiat by increasing the velocity of local exchanges, despite not supplanting inter-regional trade or the national currency itself (Seyfang & Longhurst 2013: 70). Likewise, many regional "*schwundgelder*" (depreciative moneys) in Germany allow only local stores and enterprises to participate in their system, refusing national and global supermarket chain stores access to their local payment system (Rösl 2006: 8). Similarly, they strive to increase and promote local cooperation and identity via the facilitation of funding for local community and non-profit projects (Michel & Hudon 2015: 5).

Local currencies have been criticised as being expensive and inefficient, and are generally considered as merely distinctive forms of "crisis money" (Rösl 2006). When a working paper for the *Deutsche Bundesbank* (German Central Bank), *"Regional currencies in Germany – Local competition for the Euro?"* (Rösl 2006) was drafted in 2006, the model project, *Chiemgauer*, was only three years old and its burgeoning membership still quite small. Admittedly, other local currencies like the *Bremer Roland* are indicative of another admission in Rösl (2006: 3) that most local and regional currency projects in Germany indicated significantly lower levels of acceptance. Rösl (2006: 5) observed that traditional models of currency substitution did not explain the existence of these local and regional currencies, and also pointed out that, in line with Gesell's theorisation and the early experiments with Gesellian money in Schwanenkirchen and Wörgl, the relevance of these monetary

experiments should at least be contextualised to an environment of imminent deflation in accordance with their design. But curiously, Germany had not seen a deflationary environment since the post-war reconstruction era; indeed, in the preceding decades, Germany had achieved moderate inflation rates and stable prices (Rösl 2006: 10). Furthermore, according to Rösl (2006: 5), local currencies perform worse in all respects at fulfilling the traditional monetary functions, while the donations of percentages of money exchanged to promote local associations, groups, clubs and enterprises are dismissed as only short-term attempts to make up for their lack in market competitiveness (Rösl 2006: 12). Another criticism levelled against local currencies relates to their alleged affluent nature. Much as it is with the *Chiemgauer,* which was launched in the well-to-do Bavarian town of Prien, the communal willingness to participate in regional and local currencies is generally said to only exist in areas with low rates of unemployment (Rösl 2006: 15). Admittedly, Rösl (2006: 13) refrains from commenting as to whether communities can increase or strengthen their interconnections for better forms of unity, but notes that "*Freigeld*" or "*Schwundgeld*" are all quite expensive in comparison with traditional forms of money, thus calling into question the social character of such currencies (Rösl 2006: 13).

Table 3.2: Approval of the Euro and the development of regional currencies (2001–2005)

	Approval of the euro in the euro area as a whole	Disapproval of the euro in the euro area as a whole	Approval of the euro in Germany	Disapproval of the euro in Germany	Number of regional currencies in Germany
2001	-	-	-	-	1
2002	54%	32%	39%	52%	1
2003	52%	36%	42%	52%	2
2004	53%	36%	41%	50%	10
2005	51%	39%	47%	48%	15

Source: European Commission (2005, 2004, 2003, 2002), author's own research.

Source: Rösl (2006: 14)

Interestingly, despite this rather dismissive view of regional and local currencies, the report does observe statistics from European Commission surveys that are indicative of a concurrent overall decrease in disapproval of the Euro within Germany, down from a 52-percent rating in 2002 to only 48 percent in 2005, which coincides with an increase in the number of regional currencies in Germany, from only a solitary regional currency in 2001 and 2002, to fifteen currencies by 2005 (see table 4.2) (Rösl 2006: 14). While Rösl (2006: 14) considers the reasons for this to likely be curiosity or prestige gained from supporting local currency

movements, identity or countering globalisation, this may be too simplistic and certainly would not account for the continued proliferation of local currency systems in Germany and other parts of the world. More realistically, it could be representative of a gradual, slow development of informal monetary rules of the game. Indeed, this research dissertation would suggest these local, regional and indeed mostly complementary currency initiatives represent the search for an alternative or "third way" in monetary governance that is autonomous, democratically governed and free from centralised control. They are the monetary policies of the future in incubation, emanating from a particular mutualist tradition in anarchist economics.

Barter markets make up the final category of complementary currency, and they are by far the smallest of the four subsets, accounting for 1.4 percent of global projects in four countries, worldwide (see figure 4.1). Barter markets are an amalgamation of mutual exchange and local currency, providing participants with new infrastructures for the exchange of services and goods within a site-specific, limited event that does not require the need for any national currency. Generally, individuals join a local club that issues them with what amounts to an interest-free loan, distributing to new members some local currency that can be used to trade with other club members regularly at dedicated markets. The earliest examples emerged in the neighbourhood of Bernal in Buenos Aires, in 1995, not long before Argentina's peso crisis commenced (Seyfang & Longhurst 2013: 71; Gómez 2009: 5).

These partial restructurings of their social and economic realities emerged as a complementary currency movement with strong economic and social motivations, and far less politically resistant aims than other currency movements in the literature (Gómez 2009: 2). Importantly though, the barter networks were never envisaged as forms of depreciative money or "*schwundgeld"*. "*Créditos"* were created with a stable face value and, furthermore, the organisers of the "*Redes de Trueque"* founded them with no prior knowledge or experience of complementary currency systems, let alone any sort of familiarity with Proudhon and Silvio Gesell's theories (Gómez 2009: 2). The idea behind the first *"Club de Treuqe"* was to simply make use of unproductive plots of land in the neighbourhood for weekly meetings or markets where idle resources, like time available to unemployed persons and skills not valued by formal markets in terms of demand, could merge. The emergence of these prosumers proved highly useful for Argentina's newly impoverished, suburban middle classes (Gómez 2009: 5).

Word of mouth swiftly grew the number of participants and similarly enabled a rapid replication of the *Club de Trueque* as Argentnia's national currency crisis worsened. In 1996 membership had gone from the 25 founding participants to more than one thousand, participating in seventeen barter clubs across the Buenos Aires metropolitan area. The majority of these barter clubs would accept one another's local currencies as the networks of barter clubs linked and emerged as the "*Redes de Trueque"*, an umbrella organisation that regulated the issue of currencies established (Gómez 2009: 5).

By 1999 the network had increased to 320, 000 members in more than two thousand clubs and the following year that number rose to over five hundred thousand. At their peak, the "*Redes de Trueque"* would have two and a half million users in 4, 700 centers around Argentina, with more than sixty percent of those operating on the outskirts of Buenos Aires alone (Gómez 2009: 5-6). This figure represented around twenty percent of Argentina's economically active population in twenty-two of the countries twenty-three provinces. It's peak annual turnover was estimated to be around one million Argentine pesos, or one million US dollars (prior to the January 2003 peso devaluation, thereafter that number was closer to 3 million US dollars). Similarly, participant members individual consumption is held to have increased by six hundred dollars per month at a time when the basic minimum wage was half that amount (Gómez 2009: 3). No other complementary currency achieved such a scale of use or general acceptability. Moreover, within financial history, the "*créditos"* provide a quite exceptional challenge to the conventional notion of money as the product of modern states or as emerging from a commodity-backed scrip. The socioeconomic background of most members comprised the recently impoverished middle class, who were unable to maintain their consumption patterns after losses suffered during the currency crisis and who were enthusiastic about a system that needed factors not normally found in the structurally poor, like skills, equipment, tools, minimal initial capital, and entrepreneurial capabilities.

Despite the overall decline of "*Redes de Trueque"* and the deliberate undermining of serval "*Redes de Trueques"* by governmental and private interests, a number of systems remained active and have since become emblematic of the "new" economics movement's global attempts at reshaping economic institutions, from the bottom up via self-governed, autonomous informal institutions at local and regional levels (Fioramonti 2013: 122), speaking to their general success in the realisation of monetary formats that lie between the

traditional heterodox and orthodox conceptions of money, despite often being associated with "crisis money".

3.3 Cryptocurrencies

There is another form of informal monetary system that might have the potential to reshape the future economic institutions at a vastly larger, global scale. Its implications could be massive. Cryptocurrency is all the rage in financial media, policy circles, governments and banking, although it is highly controversial, divisive and generally completely or deliberately misunderstood in those very circles. However, cryptocurrencies share some interestingly similar objectives with some of the ideas of Silvio Gesell. This is not to imply any formal theoretical or academic links, but more an observation of the similar intentions of Gesell and the anonymous creator or creators of bitcoin (BTC), the world's first successful cryptocurrency. These objectives revolve around an element of cryptocurrencies that most academics, commentators, policy makers and bankers seem to remain deliberately ignorant of.

Like Gesell, 'Satoshi Nakamoto', the unknown bitcoin architect, designed the world's first cryptocurrency specifically to reform the monetary system. Where Gesell sought to alter the institution (money) with negative interest in order to liberate the forces of economic competition, Nakamoto took aim at the global organisations, banks and payment systems that control the money supply and transaction infrastructure. Nakamoto endeavoured to do this by decentralising money and handing regulatory controls over to individual users on an accessible, free, uncontrolled and transparent platform. Essentially, Nakamoto was proposing to do with money what the internet was purported to be able to achieve for information freedom in the early 1990s. Gesell's reforms can be seen as an attack on interest and rent that aims to bypass these via the introduction of negative interest. Likewise, Nakamoto sought to omit the organisations that impose this interest and maintain rentierism on the part of money holders with a system that replaces regulators and governments with individual users who validate their own system, similarly replacing central banks with computer code and processing power.

The first communique announcing the launch of the world's first cryptocurrency, drew attention to its lack of central authority, highlighting the network's decentralised nature (Champagne 2014: 89–90) and keenly observed the antithetical position of cryptocurrencies toward centralised financial institutions (Champagne 2014: 99–101). Many analysts deliberately ignore this fact, being the stated objective behind the first cryptocurrencies, and which was indeed also a motivation of some of the first attempts to create cryptocurrencies in the 1990s (Vingna & Casey 2015: 49–56). And this lack of attention by analysts persists, notwithstanding the fact that the antithetical position of cryptocurrencies was aimed at the disruption of banking and payment oligopolies (Bendell, Slater & Ruddick 2015: 8). Nakamoto's idea was to design a completely digital, decentralised means of payment that is regulated by its users and, importantly, is totally transparent, free from any institutional influence and near impossible to hack. Moreover, the source code of the network is openly available for download and replication, meaning that anyone can create their own form of cryptocurrency by just downloading and altering the software. Similarly, any individual can participate by downloading and running the protocol on their computer or mobile phone, and this presents a massive potential for the formal inclusion of millions around the world who are unbanked or not eligible for formal economic entry.

3.3.1 The beginning of cryptocurrencies

Contrary to the contemporary assumption that cryptocurrencies spontaneously emerged in a 'big bang' or genesis moment in 2009, their appearance is closely associated with the rise of the computer and internet age in the early 1990s. Swan (2015: xi) invokes the use of computing paradigms to illustrate this evolution, with each new paradigm emerging and building on its predecessor in an order of one per decade. Thus, the mainframe facilitated the evolution of the personal computer (PC), which led to the internet, itself in turn enabling the development of the fourth disruptive computing paradigm, mobile cell phone and social networking. The fifth paradigm could, she contends, be the blockchain (or public ledger of all crypto transactions, and the base structure of all cryptocurrencies), and the immense potential of this structural component of cryptocurrencies is mirrored by the monetary potential of a fully decentralised currency.

The most direct source of experimentation with cryptocurrencies has come from a loose group of cryptographers, coders and hackers, known as the Cypherpunks. This odd grouping of members was founded at a meeting in 1992 at the home of Tim May, a former Intel physicist who also compiled the group's founding document, the "Crypto Anarchist Manifesto" (Vingna & Casey 2015: 50). The group's common concerns revolved around the increasing loss of individual empowerment and erosion of privacy in modern society, and one of its earliest ideas was the pursuit of a digital currency (Vingna & Casey 2015: 49). Their guiding principle was the notion that the digital age, an open society, could only be maintained via the protection of individual privacy (Vingna & Casey 2015: 50).

Hal Finney, a close collaborator of Nakamoto in bitcoin's early days, was one such designer who dabbled in system architecture. Similarly, Wei Dai, a cryptographer and enthusiast, released 'b-money' in 1998, six years after the first meeting of the Cypherpunks. Similar to bitcoin, this would promote peer-to-peer transactions and a shared ledger where all users could regulate the system. At the same time, Adam Black, a fellow Cypherpunk, developed his system for proof-of-work called 'hashcash'. It was designed as a response to internet spam, forcing computers to complete expensive work before allowing access to networks for sending information, thus incurring operational costs for any user who wanted to flood a network with messages, and freeing administrators from having to apply a monetary fee as disincentive. Proof-of-work would be used by Nakamoto as the foundational basis of bitcoin's mining computational difficulty program, and Nakamoto was also clearly impressed with b-money, citing Dai's work in his, her or their white paper (Vingna & Casey 2015: 51–52; Champagne 2014: 351–366). The closest any of the Cypherpunks came to a realisation of a cryptocurrency being put into use was David Chaum (Vingna & Casey 2015: 53).

Despite not sharing many of the Cypherpunks proclivities toward anarchism, Chaum was something of a messiah to the group. The former University of California at Santa Barbra and New York University professor published trailblazing papers on the utilisation of cryptography and digital technology to reform everything from voting to money (Chaum 1992; Chaum 2004), while also establishing the International Association for Cryptologic Research. Chaum is important because of his technical contributions, which would come to make up much of the structural architecture in bitcoin, like encrypted accounts, systems to inhibit double-spending, and the idea of a universal ledger. He is perhaps most well known as

the founder of DigiCash, a Netherlands-based company that nearly took cryptocurrencies into the mainstream in the 1990s (Vingna & Casey 2015: 53).

Chaum actively marketed DigiCash to central banks and governments as he developed his notions through the 1990s (Vingna & Casey 2015: 54). DigiCash drew on some of Chaum's novel ideas about how to transmit and share monetary information wirelessly, as well as the management of the degrees to which individual identities could be encrypted. DigiCash was a cryptographic structure that could protect the identity of the payer to a transaction, while enabling that agent to identify, irrefutably, the identity of the beneficiary if necessary (Vingna & Casey 2015: 53). Chaum highlighted this potential for eradicating corruption, organised crime and bribery, marketing DigiCash to commercial and central bankers, government bureaucrats, financial policy makers, and technology CEOs, and DigiCash seemed poised to revolutionise money in Europe. Chaum's motivations for pitching DigiCash to the monetary establishment were twofold. Firstly, he reckoned that central and commercial banks could, with their centrally regulated networks, deliver the efficiency and infrastructure needed to transform DigiCash into the groundbreaking technology it deserved to become. Secondly, he reasoned that financial institutions who bought DigiCash licences from him would, via the circulation of DigiCash denominated in national currencies regulated by central institutions or the trusted third parties to most transactions, be able to regulate and keep the system honest, thereby fostering a more transparent monetary system (Vingna & Casey 2015: 54). His idea seemed to have potential.

Emerging, as it did at the dawn of the computer age, many financial and technology leaders were enamoured with the idea that the world of international payments was ready for digital money. Chaum rapidly gained their attention and quickly signed a contract with the Dutch government to process toll road payments in DigiCash. Similarly, DigiCash licences were bought by major commercial banks, like *Deutsche*, *Credit Suisse*, *Sumitomo* in Japan and Advance Bank in Australia, and indeed both Advance and *Deutsche* even issued DigiCash pilot projects. Similarly, Chaum held talks with Visa and Microsoft about the system's potential. At the same time, Conditional Access for Europe (CAFE), a non-profit organisation devoted to the foundation of private, enhanced electronic payments, engaged Chaum on how to implement a continent-wide, European system devoted to that end, nearly a decade before the adoption of the Euro (Vingna & Casey 2015: 55). However, DigiCash was an idea a little too far ahead of its time. Its emergence at the beginning of the 1990s draws the alert scholar's

attention. In the early 1990s, the computer revolution was in its infancy, and the internet was not yet largely adopted, while the sharing benefits of mobile and social technology were still a decade or so away. Furthermore, DigiCash was more than just a neat electronic payments system; this was cutting edge cryptography that safeguarded user privacy, sidelined payment processing intermediaries and their associated transaction costs, and even threatened to undermine traditional power structures. Society, and particularly the banks and interest groups responsible for the maintenance of the global financial architecture, were not ready for such a concept. The problems that Chaum and the Cypherpunks were responding to were not an immediate concern for these groups, who were themselves far more eager to locate efficient ways to conduct e-commerce, the next disruptive business model that the internet was poised to unleash (Vingna & Casey 2015: 56). And to that end, DigiCash was not the only solution.

At the same time, Mondex, a UK-based company, was developing smart card technology that could store units of cash on digital chips imbedded in debit or credit cards. Likewise, credit card companies had established a consortium to make online credit card purchases secure from hackers, called Secure Electronic Transactions (SET). Then, in 1998, Elon Musk launched PayPal, a service that allowed individual users to create online accounts with their own digital equivalent dollars, and send and receive payments to other users. PayPal's rise to prominence was aided by an emerging new breed of e-vendors who utilised online marketplaces to conduct low-overhead transactions. None of the systems of these competitors was nearly as advanced or functional as DigiCash was, but it was not necessary that they were. The banks that control the financial system simply wanted to transfer the existing system to an e-commerce environment, and individual empowerment and privacy was not on their agenda. In fact, it is plausible that they viewed some of the features of DigiCash as constituting something of a potential disruption or threat to the system that they prospered from (Vingna & Casey 2015: 56-57).

3.3.2 The what and how of cryptocurrency

Three structures constitute the technology stack (Swan 2015: 1) or architecture of all cryptocurrencies. Firstly, at the base, is the blockchain platform. This is a distributed and decentralised, transparent ledger which contains records of all currency transactions and is

shared and on a network of users with no central authority. The ledger is verified, maintained and regulated by the individual users or nodes, updated by miners, and controlled by no one. The second feature is the protocol, which runs on the blockchain. The protocol functions as a software system that transfers the currency, or the top layer of the technology stack over the blockchain ledger, or base of the technology stack. The final structure is the currency, which can be traded or transacted with, on the blockchain. All modern cryptocurrencies are characterised by these three elements – blockchain, protocol and currency (Swan 2015: 1-2). This differs considerably from money that is merely stored electronically, as cryptocurrencies are purely digital and the only record of a unit of cryptocurrency's existence is its presence on the blockchain with a public key which identifies the owner of that unit. Cryptocurrencies exist only as code, zeros and ones, which cannot be forged because of the way in which the system is constructed (Pagliery 2014: 30–39).

The inherent problem of double spending which is associated with such a decentralised, digital system is mitigated by asymmetrical encryption. A global network of distributed users, or nodes, voluntarily maintains the system, validating transactions, while miners update the blockchain every ten minutes. Each blockchain update contains revisions of the latest transactions and the system depends on the nodes and miners' self-interest, as they compete to solve complex cryptographic hash algorithms and are rewarded for their participation via the collection of small transaction fees. This has no effect on individual users or their transactions, but merely assigns a small reward for users who exchange computational power and the associated energy costs used to participate in the system (Champagne 2014: 12–14). Similarly, this feature allows monetary transfers and transactions to be conducted with significantly minimal transaction costs in comparison with traditional payment services and banks (Champagne 2014: 28), all made possible by the mining computational difficulty drawn from Adam Black's proof-of–work system, hashcash (Vingna & Casey 2015: 52).

Additionally, miners compete for the 25 BTC reward they can collect for creating a new block on the blockchain. Thus, the computational work that participating miners do is in generating the correct input via the cryptographic hash algorithm. Once the correct input is discovered, the system easily verifies this via the other users who authenticate it and immediately move on to calculating the next problem to create a new block. The difficulty of a problem is regulated by the particular cryptocurrency's protocol, which is incrementally

made more complex to solve, a feature that also serves to limit and control the issue of currency (Champagne 2014: 13–19). In the case of bitcoin, this is limited to a total of twenty-one million BTC, with distribution amounts being halved every four years (Champagne 2014: 91). Essentially, cryptocurrencies replace the functions of central banks, substituting them with a decentralised system where individual users transform their computer processing power into currency (Kelly 2015: 16) in a system where encryption algorithms, responsible for securing the network, ensure that each part of the system has limited powers in the monetary creation and verification process, with this being continually diluted as the network expands, and the entire system being neatly incentivised toward compliant behaviour (Liu & Huang 2016: 78).

3.3.3 Is cryptocurrency money? Yet?

Some of the largest controversies surrounding cryptocurrency revolve around questions of security, and whether or not they are money, together with the related issue of their value stability. To begin with, it is worth exploring, briefly, the question of whether cryptocurrencies can be considered to be money or not. The answer to that question seems to depend on a number of factors that are beyond academic classification (means of exchange, unit of account, and store of value). However, that is a good place to begin unpacking the issue.

In the literature on bitcoin, opinions on this matter differ. Kelly (2015: 13) reckons it does not qualify as a unit of account, since no commodities list their prices in BTC and relatively few consumer products express their value in units of BTC. As a store of value, he similarly observes the volatility of bitcoin as a factor which could inhibit mass adoption. He does concede its wide use as a means of exchange, and problematizes the acceptance of cryptocurrencies in terms of general and required acceptability. Relating back to the chartalist theory, Kelly (2015: 13) observes a common argument against cryptocurrencies like bitcoin, which is that they cannot be used to pay government taxes, and are not backed by any sovereign promise, making them appear illegitimate.

Contrastingly, Pagliery (2014: 80) observes that since agents are willing to pay state-issued money to purchase bitcoin, it must be a valid store of value. There is more merit to this point

than one would think, considering that much of the value of bitcoin to the present has been based on speculation and the aspirations of buyers and miners who anticipate the future demand and adoption of digital currencies that are limited in supply (Bendell, Slater & Ruddick 2015: 8). Pagliery (2014: 80) also observes that thousands of web merchants accept BTC for the payment of goods priced in BTC on a daily basis, which constitutes evidence that it qualifies as a unit of account. Champagne (2014: 28-31) is keen point out the ability of cryptocurrencies like bitcoin to be both currency and money. Currency can, naturally, be used as a medium of exchange, but is similarly held to be a unit of account, as well as divisible, durable, portable, fungible and mutually interchangeable. For a currency to be money, the above-mentioned properties are all necessary, as well as the ability to preserve value in the long term (purchasing power). This is because he is keen to highlight bitcoin's status as a "deflationary" currency, meaning that prices listed in BTC will, over time, and in all likelihood, decline due to the limited supply.

Critics are keen to point to this deflationary nature as being one of the main drawbacks; however, Champagne (2014: 31) considers this to be actually beneficial. His argument relies on a distinction between hoarding and saving, noting that savers are in fact delaying consumption, as they are not competing for resources with producers, manufacturers and builders in deferring their spending. In this way, he attempts to imply that the limited supply of bitcoin is what the currency derives its value from, a point which also speaks to its status as a store of value (Champagne 2014: 32). However, limiting the supply of a currency does not mean that it will automatically have value, as supply is rendered useless without demand (Bendell, Slater & Ruddick 2015: 8).

Bendell, Slater and Ruddick (2015: 8) observe that the use of commodity money language to depict bitcoin, for example referring to the issue of currency as "mining" and the tendency of many scholars, commentators and enthusiasts to equate the currency to a form of digital gold, is a rather cunning and somewhat disingenuous classification. They reason that if BTC is to be interpreted as commodity money, the actual use value of the currency, in its physical form, should be understood. Here, BTC's use value is that of a record on a global database, and therefore the value of the currency would be dependent on how common the use of that database is. They do concede that this perception will not explain or lead to an understanding of the price volatility. In this way, BTC can only be considered to be commodity money if scholars accept that the recognised value of commodity money is far beyond the tangible use

value of the underlying commodity backing it. Gold, for example is not as practically useful as other metals are, while its value as a commodity money is far greater than its utility as a thing is. Similarly, if the values of commodity money are recognised by society for their functions as money, and not for their actual use as commodities, the whole idea of commodity monies is baseless. Rather, these forms of money are creatures of custom and habit, and are only really valued because they are valued, meaning money returns to a socially constructed reality (Bendell, Slater & Ruddick 2015: 9).

A significant contribution to the status of cryptocurrencies as money and their general adoption could be made by formal state recognition, but global reactions to cryptocurrencies from sovereign powers have been mixed, at best. Swan (2015: 7) observes that states that do attempt to classify digital and cryptocurrencies in accordance with existing regulatory structures often encounter great difficulty in aligning these forms of money with existing monitoring architectures. This structural difference often leads them to conclude that new legislation is necessary to exert regulatory control, as this new monetary format cannot be applied to existing legislation. Australia, for example was not able to consider BTC to be a currency because it conflicted with Australian law on nationalised monetary issuance. This does, however, subject BTC to both goods and services tax, as well as value added tax in Australia. Contrastingly, the UK considers bitcoin as currency and therefore does not subject it to value added tax. In the USA, it is treated as property and not money. In this way, users do pay capital gains taxes on their bitcoin transactions, despite the fact that almost every other US government agency treats it as currency and these include the Financial Crimes Enforcement Network (FinCEN), the Department of Justice (DOJ), the US Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission (CFTC), and the Consumer Financial Protection Bureau (CFPB) (Swan 2015: 7).

Japan is by far the global leader in market adoption of cryptocurrencies, and by 15 January 2018, more than half of the monetary accounting of BTC capitalisation, or 56.2 percent of bitcoin, was denominated in Yen (Matsutani 2018). The dollar accounted for only 28.4 percent, and the former leader, the Chinese yuan, had significantly declined since the state imposed a ban of cryptocurrency trading. This figure is significant, considering that bitcoin itself accounted for 32.8 percent of the market capitalisation of global cryptocurrencies at the same date. In Japan, cryptocurrencies emerged as a major alternative to traditional forms of investment like foreign exchange, bonds and stocks, and by January 2018, BTC market

capitalisation in Japan stood at USD 230 billion. When compared with Japan's largest stock, this number is adequately illustrated, as the market capitalisation of the Toyota Motor Corporation at the same time was USD 225.7 billion. The total market capitalisation for all cryptocurrencies in Japan was USD 701 billion (Matsutani 2018). Japanese familiarity with, and proclivity toward, securities trading, and particularly day trading on foreign exchanges, has resulted in in a solid legal system on which to base the regulation of cryptocurrencies, which supports the establishment and strengthening of credibility among individual users and investors. The decreased transaction costs and ability to mitigate third parties to transactions similarly appeal to a population eager to use and develop innovative technologies, and many of the benefits of cryptocurrencies naturally appeal to Japanese consumers.

In a rather ironic twist, then, considering the strong anti-establishment and anarchist tendencies present in the history of the emergence of cryptocurrencies, many governments worldwide have recently sat up and paid serious attention to them. Georgia's capital city, Tbilisi, is dominated by a massive data centre, constructed to mine BTC while experimenting with the blockchain as a means to secure government records and documentation, processing around 160 000 title deed and land registrations, as the nation moves its property registry on to the blockchain. Similarly, Sweden has been testing a land registry system based on the blockchain and, more ambitiously, Dubai plans to power its entire government using blockchain-based distributed ledgers by 2020. Likewise, Estonia, a long-time pioneer of e-government, has made use of blockchain-based technology to secure its health system record keeping, as well as underpin its shared government database system (The Economist 2017). Likewise, the Swiss Canton of Zug began accepting BTC for the payment of municipal services in 2016 and the following year the nearby municipality of Chiasso began to accept it for tax payments (Allen 2017). Even states that initially banned or criminalised cryptocurrencies are starting to realise the importance and increasing influence of this monetary format.

On 25 January 2018, the Russian Finance Ministry introduced a draft federal law on the regulation of initial coin offerings (ICOs) and the regulation of digital assets in a proposal aimed at establishing and maintaining appropriate legal structures for regulation, while also developing and imposing a system for taxation on income for cryptocurrency miners (Higgins 2017; Zhao 2018). This move forms part of the Russian Government's efforts to support and develop new financial services around technology, and is illustrated in one of the

mandates of a Putin-issued decree in 2017 to create a regulatory "sandbox", or framework, wherein start-ups and companies can test new products in restricted environments. Other states, like the UK, have established sandboxes that are oriented around finance, which have attracted good numbers of blockchain start-ups and companies for trials (Higgins 2017). Putin was keen to stress Russia's approach as a cautious one during his annual "hotline" discussion in early June 2018 (Baydakova 2018). Responding to an audience question about whether Russia will one day have its own cryptocurrency, he realistically observed that cryptocurrencies are, by their very characterisation, beyond the realms and boundaries of sovereign nations, and also pointed out the large-scale proliferation and acceptance of cryptocurrencies, globally, noting that Russia ought to explore the potential opportunities that the technology presents, especially the possibility of negating the current limitations in global finance. He was likewise keen to point out that cryptocurrencies do not have legal tender status, echoing the nation's slow, considered, and measured approach that was illustrated in the Russian *Duma* passing only two of the three bills proposed in the first round of hearings on 22 May 2018. Despite the passing of bills "On the digital rights" and "On the digital financial assets", legislators rejected the bill "On the distributed national mining" which attempted to introduce the term "cryptoruble" in the wording (Baydakova 2018). Though tacit, such approval should be read with a certain amount of scepticism. Although the bills attempt to lay out a legal language for cryptocurrencies and blockchain-based systems, they fall short in this due to the lack of an acceptable legal lexicon for blockchain in general, and end up paying little more than lip service. This is, however, a tacit form of acknowledgement, and examples like this are hardly unique. There is a global frenzy of private- and state-sponsored research into the uses and applications of blockchain technology in business, finance, voting and direct governance, contracts, copyright and virtual notaries, foreign and emergency aid, public and national identity registry, healthcare, utilities, and academic publishing, to name only a few prominent areas of application (Swan 2015: 39-66).

A final perspective on cryptocurrencies considers their applicability for use as a global reserve currency and provides a sober reflection on the question of whether or not cryptocurrencies can be considered money. Naturally, Liu and Huang (2016: 71) begin their analysis by overviewing the international monetary system, with the observation that a global reserve currency is attributed with a great deal of power regarding the benefits that an issuing state enjoys when its currency is used as the global standard. These benefits include economic as well as allocative, distributional benefits, and have important implications for

the distribution of power and resources in the global economy. They also observe that the evolution of the international monetary system has traditionally been undemocratically dominated by wealthy, powerful core states, to the disadvantage of peripheral nations. A global system where the reserve currency is based on the strongest member state, or global reserve system, using national fiat, immediately places the issuer at an unfair advantage by using its money as the principal reserve. Peripheral states, on the other hand, and especially those with export-orientated development programmes, have to purchase core issuing nations' currencies to use as national reserves, while the issuer has no need to accumulate reserves, as transactions are in its currency, and its money is the global unit of account. This benefits core issuers further, as the reserve currency will then be more expensive than peripheral currencies are, even if both had the same purchasing power for goods. The core nation also earns seigniorage income, or the difference between interest received on the securities that are obtained in exchange for bank notes and the costs involved in distribution and production of those notes, for issuing a global reserve currency. Furthermore, core issuers can reduce the costs of funding fiscal deficits via issuance of low-interest bonds, often held by peripheral states. Contrastingly, peripheral states have a much harder time obtaining financing from global markets, while being compelled to hold large amounts of foreign-denominated currency reserves to survive and mitigate any balance of trade deficits. They similarly risk the devaluation of their core-denominated assets due to countercyclical policies pursued by the core issuer (Liu & Huang 2016: 73).

The only limitation this places on the issuing nation is the imposition on its monetary policy of something of a dual mandate, with competing tension between the issuer's role as the guardian of domestic policy and the provider of an international public good. Often these dual objectives cannot be pursued concurrently, and in turbulent situations, issuing states have little incentive to service the needs other nations. Therefore, if a core issuing state were to fall into recession, it would pursue policies that promote a domestic recovery, which will, in turn, destabilise the global or regional economy (Liu & Huang 2016: 74). Liu and Huang (2016: 72) observe that a democratic global reserve system should satisfy two objectives. Firstly, it should provide a dependable and stable unit of account, medium of exchange, and store of value that would provide efficient and dependable international trade and transactions. Secondly, it must be democratically governed, or the system should provide due input and regulatory control for all affected populations under the monetary regime (Liu & Huang 2016: 72).

They also outline three criteria that can be used to compare the differing types of money that could be used as a global reserve. The first criterion is economic efficiency. A global reserve currency should have low transaction costs and should be efficient as an international settlement mechanism, being easy to convert to other asset classes. It should also be broadly used in international trade and financial transactions, leading to an increase in network externality (Liu & Huang 2016: 75). The second criterion is risk. The most prominent monetary risk concerns the stable value of the global reserve. Volatility is discouraged and should be minimised, while an instrument to govern the monetary supply is strongly recommended. This diminishes the likelihood of uncertainty, while increasing confidence in the currency's purchasing power. The final criterion concerns itself with democratic governance and equality in the distribution of wealth. As a public good, the global reserve currency is considered to be a common asset for all, and thus the costs and benefits should be equitably distributed to all participants, regardless of the status or size of participating nations. The system should be managed on democratic mechanisms which administer the decision-making process, while limitations should be placed on each participant member state's level of power, influence and privilege, to avoid systemic domination by one state (Liu & Huang 2016: 75).

They utilise these criteria to compare three monetary candidates for the job of global reserve currency; a national fiat currency, a basket of currencies, illustrated by the International Monetary Fund's (IMF) Special Drawing Right (SDR), and supranational cryptocurrencies like bitcoin. They observe that cryptocurrencies operate with far greater levels of efficiency and with much lower transaction costs than either SDRs or government fiat do (Liu & Huang 2016: 79). Cryptocurrencies can also be sent and transmitted instantly across borders to verifiable locations, with little risk in a monetary channel that is immune to exchange rate fluctuations, speaking to its ability to provide an efficient and dependable architecture for international transactions and trade. Admittedly, in terms of the second criterion, risk, the wild price fluctuations in bitcoin over the last two years present a good illustration of the difficulty that cryptocurrencies have experienced in attempting to deliver a stable store of value, but this can, to an extent, be accounted for by speculative investing and uncertainty about governments' individual attitudes and policies (or lack thereof) to deal with cryptocurrencies. Regardless, risk is the biggest obstacle to the suitability of cryptocurrencies for use as a global reserve currency, compared with a national fiat like the dollar or the SDR

(Liu & Huang 2016: 80). In terms of the final criterion, equity and democracy in monetary governance, cryptocurrencies are in another league altogether. Neither SDRs nor fiat currencies come close to a system designed to abolish the monopolisation of a monetary supply, distribution, regulation and control to its users, thereby preventing any kind of domination by group or individual, and thus side-lining the undemocratic relationship that characterises the current core-periphery global reserve system. The conclusion that Liu and Huang (2016: 82) reach is that a continuation in research and development of the technical structures in cryptocurrencies that would improve on security concerns, along with increased global acceptance of cryptocurrencies in general, could pave the way for cryptocurrency to emerge as the far more suitable monetary form for use as a global reserve.

3.4 Conclusion

Though generally disparate in origins, structures and geographical locations, the currency forms explored in this chapter have all to varying degrees shared a loose allegiance to the ideas imbedded into positive theories on anarchist economics or the practical reforms of mutualist theorists. This illuminates many similarities in approach, such as a shared aversion, be it out of ideology or necessity, to operating within formal governmental and economic structures, and a position critical of the unearned incomes provided by capitalism in the form of interest and rents. This view similarly finds the location of social, political and economic instability in the economic realm, and true to the mutualist tradition, specifically locates the place for reform in the monetary sphere, attempting to negate the unproductive elements inherent in a capitalist monetary system, while liberating the forces of competition and production. Similarly, this paradigm rejects the socialisation of the forces of production and property, but does highlight the socially constructed nature of money, with a clear focus on community and region. In this way, many of the monetary forms highlighted in this chapter are experimenting with new forms of social economic governance, at a time when many developed nations are experiencing large-scale social unrest due to crises of political and economic governance. Admittedly, most of these monetary formats arise in times of economic and social crisis, but out of a blend of necessity and ideology, has emerged a loose grouping of movements around the globe, attempting to reshape their economic institutions from the ground up, via self-governed, autonomous, and informal institutions that function locally and regionally.

The analysis of cryptocurrencies as constituting something of a distant, anarchist-inspired cousin to the many local and regional currency movements, worldwide, introduces the idea that small, local economies can be protected from external economic shocks, while staying globally connected on their own terms. Cryptocurrencies can link local and regional economies to a decentralised, democratic global monetary system that promotes a local, social, economic and environmentally sustainable wellbeing. In an era when the ability of developed nations to deliver on this ideal is questionable at best, despite it ironically being a promise many have pledged to deliver on, this alternative take on monetary and economic organisation could provide a serious alternative to populations the world over whose policy makers, politicians and academics only seem able to repeat and regurgitate the same conflicting and mutually exclusive fables on monetary governance, which is the heart of the issue.

Indeed, complementary and cryptocurrencies can be seen as being highly compatible with one another, and this position is amenable to their stark differences and similarities. Whereas complementary currencies are geographically localised and focus on the communities wherein they function, cryptocurrencies are global, open networks that can include any willing participant anywhere in the world, free from any form of economic discrimination. While complementary currencies close off the local economy, forming a submarket, resistant to external shocks or drains on capital, cryptocurrencies open the possibility for exchange to any user or group in a vast global network of users.

Both currency forms similarly depend on democratic governance mechanisms which place monetary policy firmly in the hands of the users. In complementary currency systems, this is symbolised by the regional autonomy and pursuit of localised aims that focus on economic sustainability, environmental concerns and the social construction of their alternative monetary forms. In cryptocurrency, governance is similarly decentralised and located both in the algorithms which control monetary issue and in the consensus-driven, open blockchain that can only be verified by the users of that system. Both monetary formats are similarly averse to interest and either strictly limit the payment of interest or function free of any kind of interest payment. Indeed, some still retain the Gesellian feature of negative interest to structurally incentivise circulation and promote the local economic multiplier. Both these alternative forms of money are, then, united by their efforts to decentralise monetary governance and the pursuit of individual and group autonomy, in stark contrast to the

traditional, centralised forms of state money that modern society has become so accustomed to. Indeed, a consideration of some of the major criticisms of complementary systems would allude to cryptocurrency being a far more suitable compliment to these systems than the traditional fiat they are held to supplement is.

4. Concluding remarks and observations

The historical alternative that this research sought to explore provides a snapshot of early institutional evolution, where money emerges as something of a by-product of early states. Indeed, it similarly indicates the existence of multiple forms of money. Early economies utilised formal and informal credit arrangements in tandem with a gradually proliferating usage of precious metals for long-distance trade, an economic interaction that may have led to the emergence of commercial interest. Indeed, the historical record is consistent with the notion expressed by institutional and experimental economists, that an institution like money cannot have an institutionally free origin, and rather emerges from a complex blend of formal and informal players in the institutional game. In early monetary history, these players comprise the palace and temple complexes, using standardised measures of value and commercial interest, as well as the private, informal spheres, where private loan contracts also circulated, and where defaulting on both forms of debt resulted in perpetual debt slavery. Similarly, markets did emerge around ancient standing armies, with ancient rulers and bureaucrats realising their expediency in alleviating some of the supply demands for the maintenance of standing forces. In this way, many of the modern political and economic institutions, which are considered fundamental to continued human existence and development, were founded on the logic of slavery. Likewise, the concept of debt forgiveness or jubilee emerges as an early response to the massive social and economic instability that large-scale default would cause. Indeed, oscillations between an era's relative prosperity and large-scale social unrest seem to typify many early Mesopotamian city states, and similar problems characterise the other societies where early monetary forms emerged – in China and the Indus valley.

The responses to these social pressures emerged in Greece and Rome. Coinage similarly merged the four microeconomic functions of money into one, centrally governed institution under the state. The social limitations that these societies placed on debt peonage essentially structured who was eligible for slavery, and that military-coinage-slavery complex also completed the institutional transformation of debt from an obligation or social relationship into a financial one. In a way, coinage fundamentally first altered the underlying relationships involved in what is a social, informal institution, and formalised it forcefully through slavery,

under the state. This fundamentally undermined the monetary relationship in the human economy. At the same time, and since inception, states have had great difficulty in regulating and maintaining the value of coins in circulation. The historical record is rife with examples of poor governance, deliberate devaluations, shortages and strategic manipulations in monetary supply. Whether intentional or just the result of unintended effects, or the consequence of calamitous misfortune, theorists like Mitchell-Innes (1913) (1914) observed that credit instruments were still far more pervasive in commerce throughout history, even when state organised, and monetary scarcity was a rather prevalent phenomenon, upon re-consideration of Adam Smith's examples. This position finds coherence with modern conceptions of barter, which rejects the notion that money and markets emerge spontaneously from barter to overcome the difficulties associated with the double coincidence of wants. Likewise, this conception observes the relative modernity of barter, occurring among groups familiar with money but lacking its supply or circulation.

Correspondingly, this perception finds coherence in the thinking of theorists like Proudhon and Gesell, who clearly understood that commercial exchange functions quite differently from the conceptions of barter contained in orthodox assumptions, which would come to dominate the paradigms set out in modern economics textbooks. Their insistence on locating the production of value in the social realm, as the result of agent interactions, is coherent with deliberations on value set out by Simmel and Orléan. Orléan's position is similarly critical of the dominant forms of theorisation and the methodologies utilised. Indeed, the reform projects of both anarchist theorists attempted to decentralise monetary governance and hand control over to those who would use money in commerce to make, produce and exchange goods and services, thereby removing the idle elements in society, whom both Proudhon and Gesell considered to be the unproductive land owners and rentiers who accumulated wealth and interest, thus hindering economic activity and the possible prosperity of all.

Undeniably, it is from this mutualist strand of anarchist thought that some of the first and enduring complementary currency systems have emerged. Granted, a great deal of modern systems bear little resemblance to Gesell's depreciative "free money", and no state has ever adopted such a system. However, most modern complementary currencies do carry the heritage of Gesell and Proudhon in their DNA. All strictly limit or prohibit interest, and none pay any interest out on savings nor charge great interest on loans. Similarly, many are premised on the social construction or reproduction of circuits of value, and are further

acquiescent with ideas about the socially constructed nature of institutions, credit and value presented. Despite the amalgamation of various social, theoretical and idealistic movements, many of the modern forms of complementary currency can trace their paradigmatic allegiance to the mutualist tradition of Proudhon, whose great contribution may have been in identifying economic and monetary factors as being the fundamental economic area in need of reform. His follower, Silvio Gesell, furthered this tradition with his "*Freiwirtschaft"* ("free economy"), and despite some shortcomings, did go on to profoundly influence the grass roots, community-led initiatives that emerged in the Great Depression. Interestingly, the third wave of democratisation that arose after the fall of communism ushered in another resurgence in complementary currency movements, at around the same time that their distant ideological cousin, cryptocurrencies, were just being considered a possibility.

Consistently, then, the pursuit of a third way in theorisation, modelling and prevailing ideology has indicated a coherent relationship between the theories of money as debt, which run contrary to the prevailing economic logic regarding monetary origins and the nature of the institution. This extends well to credit creation theory, which asserts that money is nothing but credit, and that commercial banks create money every time they take the action known as extending a loan. Similarly, this view contends that value is the product of social interaction, and cannot be some predetermined state or element prior to a transaction. Likewise, such paradigms can, loosely, be unified under anarchist theorisation as the mutualist tradition identified the location of economic wastefulness in rent and interest, and set about to attempt monetary reform in order to solve the social and political problems that emanate from this inequality.

The key finding in this study, then, finds a strong argument for Proudhon's mutualism as constituting the beginning of a "third" way between orthodoxy and heterodoxy, despite sharing some similarities with heterodox thought. Both Proudhon and Gesell went further than their heterodox contemporaries did in attempting to bring about fully fledged monetary reforms. Their theorisation directly contributed to some of the first and most persistent forms of alternative, non-state money. Likewise, as indicated, their ideas are consistent with the deliberations of debt theorists about barter, value and the generation of money as a social phenomenon, emanating from the multiple forms of trust and obligation present in all societies, at all stages of development. Clearly then, a "third way" exists and can be utilised as a source point from which scholars can analyse the global financial system in a way that is

far more consistent with economic practices on the ground, in societies, markets and marketplaces, worldwide. This alternative perspective has similarly begun to answer the question of what an alternative monetary system that is more democratic and decentralised would look like. Though still monetary infants, many complementary and cryptocurrencies have begun the informal process of institution-building by attempting to construct equitable forms of money that, as Simmel observed, do not attempt to eliminate inequality, but rather seek to stabilise and minimise economic inequality via monetary forms that attempt to include the communities in which they circulate. This third way, then, represents realistic observations about monetary origin and governance in its present format, while functionally proposing systems that counter the centralised form that the world has become so accustomed to, all consistent with the anarchist perspective on economic and political organisation.

As observed, many of these systems are, evolutionarily speaking, still infants and accordingly a great deal of micro- and macro-economic, political, legal and social research is still needed to gain an understanding of how these could become the formal rules of tomorrow's institutional game.

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