2019

Non-State Community Virtual Currencies

Benjamin Geva
Osgoode Hall Law School of York University, bgeva@osgoode.yorku.ca

Dorit Geva
Central European University

Source Publication:

David Fox and Sara Green (eds.), Cryptocurrencies in Public and Private Law (Oxford University Press, 2019) pp. 281-306.

DIGITAL CURRENCIES IN PUBLIC AND PRIVATE LAW

Edited by Professors Sarah Green and David Fox

Oxford University Press

RE-SUBMITTED July 31, 2018 [Earlier Drafts **SUBMITTED** June 04, and July 17 2018]

NON-STATE COMMUNITY VIRTUAL CURRENCIES

BY

Professor
BENJAMIN GEVA*
Osgoode Hall Law School
York University
Toronto, Canada
bgeva@osgoode.yorku.ca

Associate Professor
DORIT GEVA*
Dept. of Sociology & Social Anthropology
Central European University
Budapest, Hungary
GevaD@ceu.edu

*The authors acknowledge with gratitude research assistance provided by Luke Kelly and Alexander Davis, respectively of the CEU and Osgoode Hall Law School.

***

1. Introduction: What is Digital Community Currency

Community currencies are means of payment issued other than by the state, for voluntary use side by side with state-issued (that is, national) currency, either in a particular geographical area or by a group of users. This chapter deals with them as their media has been transforming from paper to digital. Discussing legal aspects of digital community currencies as monetary objects, this chapter combines an analysis general to the law of community currencies, as applied to community currencies regardless of the media in which they are embodied, with an analysis of the general law governing digital currencies as applied to community currencies. Questions relating to the meaning of 'money' and 'community' are at the crossroad of law, economics and sociology. Hence the collaboration between a lawyer and a sociologist.

Community currencies may be issued by an individual, non-profit association, business, or public, regional or local authority. Where the community is geographically defined the currency is said to be local or regional. Otherwise, the community currency is spoken of as being parallel or complementary.[1] By reference to their availability for use side by side with national currencies, community currencies may be referred to as alternative currencies.[2] Literature is not precise on terminology and all such terms are often used interchangeably. Since local currencies may be the largest category of community currencies, these two terms are frequently used indiscriminately, a point to be kept in mind throughout this chapter.

The group using the currency, whether or not it is geographically based, may be referred to as a 'monetary community.' Its governance may be democratic or hierarchical. It may be formed either for-profit, for the mutual benefit of its members, or for the enhancement of a cause to which the participants adhere.

A community currency may take diverse forms. It may evolve from barter into the use of a unit of account reflecting the value of a given product or amount of labour,[3] which may be evaluated in the national currency. Such a system may operate as an exchange of mutual or reciprocal credit system. Among such systems, Local Exchange Trading Systems (LETS) are denominated in the national currency while Time Banks systems are denominated in service hours. Alternatively, a community currency could be a scrip, namely a circulating document reflecting its issuer's IOU obligation to pay the bearer, denominated, either at its own unit of

---

[1] For this classification see: Stephen DeMeulenaere, *An Overview of Parallel, and Community Currency Systems*, [1998] <http://www.appropriate-economics.org/materials/overview_of_Parallel_Local_and_Community_Currencies.pdf> accessed 16 July 2018. For even more extensive information of complementary currencies see online: <https://en.wikipedia.org/wiki/Complementary_currency > accessed 16 July 2018.

[2] Caroline Kenny, *Alternative Currencies*, POSTnote no. 475 (Houses of Parliament, August 2014) <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/POST-PN-475#fullreport> accessed 16 July 2018.

[3] According to Jérôme Blanc, 'Local currencies in European History: an analytical framework', [1 October 2006] <https://www.researchgate.net/publication/5087621_Local_currencies_in_European_History_an_analytical_framework> accessed 16 July 2018 (hereafter Blanc 'Local Currencies'), the first local currency was envisioned and executed by Robert Owen, in the form of "labour notes" exchanged first in Indiana (US) in 1824 and then in a "National Labour Exchange" in England in 1832-34.

account, such as service hours,[4] or in the unit of account of the national currency.[5] As an alternative mode of financing scrips (as well as credits) may be issued at discounted value by retail business to consumers for future purchases at their full face value. Or else, scrips and credits may be issued as promotional tools.[6] Retailers and suppliers may also purchase community currency directly from the issuer.[7] Scrips may circulate in the community until they are redeemed, at which point, they may be re-issued. To achieve success scrip circulation must occur 'in a circle,' "forming a closed loop, that involves only participants in the system, both with respect to exchanges of the … currency for goods and services, and exchanges of goods and services for the … currency."[8]

At present scrips may be substituted by digital currencies. Throughout this chapter 'digital currency' is taken to consist of privately issued digital coins of which each is "an entity that amounts to a string of bits" which must have a numerical value and a unique identity.[9] For its part, a 'cryptocurrency' is a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the execution of payment transactions[10] on

---

[4] Lewis D. Solomon, "Local Currency: A legal policy Analysis" (1995), 5 Kan JL & Pol'y 59, 74-76 (hereafter Solomon, 'Local Currency').

[5] It is distinguished from trading stamps which were mostly outlawed in the US and Canada at the turn of the 20th century that were given as a discount to a purchaser against the promise to redeem them of someone other that the seller (who typically overcharged). Bradley Crawford, "New Methods of Payment and New Forms of Money" (2004-05), 20 BFLR 393, 398-402.

[6] See Gregory A. Krohn & Alan M. Snyder, "An Economic Analysis of Contemporary Local Currencies in the United States" (2008), 12 International Journal of Community Currency Research 53, 55-56 <https://ijccr.files.wordpress.com/2012/05/ijccrvol122008krohn.pdf> accessed 16 July 2018 (hereafter Krohn, 'Economic Analysis'). And in greater detail Solomon, 'Local Currency' (n 4) at 74- 81.

[7] Mona Naqvi and James Southgate, "Banknotes, local currencies and central bank objectives", 2013:4 Bank of England Quarterly Bulletin, Figure 2 at 322 <https://www.bankofengland.co.uk/quarterly-bulletin/2013/q4/banknotes-local-currencies-and-central-bank-objectives> accessed 16 July 2018 (hereafter Naqvi, 'Banknotes')

[8] For this expression see Marussa V. Freire, 'Social Economy and Central Bank: Legal and Regulatory Issues on Social Currency (Social Money) as a Public Policy Instrument Consistent with Monetary Policy' [2009] 13 International Journal of Community Currency Research 76, 84 available online: <https://ijccr.files.wordpress.com/2012/05/ijccrvol132009pp76-94freire.pdf> accessed on 16 July 2018.

[9] Gideon Samid, *Tethered Money: Managing Digital Currency Transactions* (London: Academic Press, 2015) at 105-106 (hereafter Samid, 'Tethered Money').

[10] This definition slightly modifies the one from <https://medium.com/@Wolfofcrypto/basic-cryptocurrency-starter-guide-8f2071ea85de> accessed 16 July 2018; particularly, I replace 'transfer of funds' by the 'execution of payment transactions' to point at payment by the transmission of 'coins' rather than 'generic value' in the forms of funds.

a decentralized network. Typically it does not have an issuer but may have founders or promoter of its technology.

Participants in a digital currency scheme may use a centralized network or permissioned decentralized one.[11] A permissionless decentralized cryptocurrency network[12] such as Bitcoin may not be seen as facilitating a community currency as by definition it is open to all. On the other hand, the voluntary basis of participation in an open permissionless network makes its currency akin to that of a community, the latter being defined by the participation in the network. One objective of the chapter is to see to what extent the analysis of restricted access community currencies applies to a permissionless decentralized cryptocurrency network. More in general,

Part 2 discusses the difference between legal tender and money and thus highlights the centrality of 'acceptance in the community' in the definition of money. Part 3 addresses the relationship between 'acceptance' and community.' Part 4 outlines the origins of community money highlighting the point of 'acceptance'. Part 5 proceeds to address the possible impact of digitalization, particularly in the form of permissionless digital access, on 'monetary community.' The chapter goes on to discuss the legal history of the banknote (Part 6), its application to the community paper-based money (Part 7), and subsequently to the cryptocurrency (Part 8). This discussion is designed to demonstrate the convergence between the sociological and legal approach and thus confirms the broad meaning of 'money' covering community currency in general and in relation to cryptocurrencies in particular. Benefits of community currencies are briefly discussed in Part 9. The conclusion in Part 10 is that the law is flexible so as to accord monetary status to anything accepted as money and that concerns with financial stability and the protection of the public justify some form of regulation of business activity in relation to digital community currencies. In the final analysis, particularly with the broader perspective digitalization, gave to the meaning of 'community', 'community money' does not distinguish itself as a separate category of 'private money'

2. Legal Tender and Money

Money differs from any other item of property in that it "can not [sic] be recovered after it has passed in currency."[13] Stated otherwise, one who takes money in good faith and for value takes it free from all adverse claims to it. As well, money is required for the application of some

[11] For centralized, decentralized, and hybrid models see e.g. IMF Staff Discussion, Virtual Currencies and Beyond: Initial Considerations (January 2016), at 8-9 available at: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf> accessed 15 July 2018.

[12] For permissioned and permissionless decentralized schemes see e.g. (UK) Government Office for Science, Distributed Ledger Technology: Beyond Block Chain, (2016) at 17 available at <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf> accessed 15 July 2018.

[13] *Miller v Race* (1758), 1 Burr 452, 457; 97 ER 398, 401 (hereafter *Miller v Race*).

statutes like the *Sale of Goods Act*[14] and the *Bills of Exchange Act*.[15] Accordingly, a transaction in which payment for goods is made other than in money is a barter and is not governed by the *Sale of Goods Act*. Consequently, for example, a buyer in a barter will not benefit from the statutory implied conditions relating to the goods.[16] By the same token, an instrument payable other than in money is not a negotiable instrument and is not governed by the *Bills of Exchange Act*. Consequently, for example, neither holding in due course nor giving value presumption will benefit its 'holder' who may not be even entitled to sue on its own name. [17]And there may also tax implications as to whether an item of property is 'money'.

The question which arises then is whether community money is 'money.' To begin with, quite universally it is not 'legal tender'. The latter is usually taken to mean tender of money in banknotes and/or coins which constitute the national currency under the legislation of the state.[18] In the absence of an agreement to the contrary, a debtor may make such a tender, and the creditor must accept it, in discharge of a monetary debt.[19] As for the relationship between the two terms, it was held that "money which is current" – namely, money in actual circulation [20] -- need not necessarily be "money which is legal tender."[21] Stated otherwise, 'legal tender' must be 'money' and yet the reverse is not true. [22] Along these lines, s. 8(1) of the Canadian *Currency Act*[23]

---

[14] 1979 c. 54 (SGA)

[15] 1882 c. 61 (Regnal. 45_and_46_Vict) (BEA)

[16] SGA ss. 12-15.

[17] BEA ss. 29, 30, and 38.

[18] See e.g. in the UK: s. 1 of the *Currency and Bank Notes Act* 1954, 1954 CHAPTER 12 2 and 3 Eliz 2*; Coinage Act* 1971 c. 24 s. 2, As amended by the *Currency Act* 1983 c.9; in Canada: s. 8(1) of the *Currency Act*, RSC 1985, c C-52.; and in the US: In the US see s. 102 of the US Coinage Act Pub. L. No. 89-81, §31, 79 Stat. 254.

[19] "Legal tender" must be made in "money that is legally valid for the payment of debts and that [in the absence to an agreement to the contrary] must be accepted for that purpose when offered." See <http://www.merriam-webster.com/dictionary/legal tender> accessed 16 July 2018. Definition is however incomplete as it fails to include the bracketed language. See also Legal Tender Guidelines of the Royal Mint, available online: <https://www.royalmint.com/aboutus/policies-and-guidelines/legal-tender-guideline> accessed 16 July 2018.

[20] For 'current money' as "Money that circulates throughout a country" see e.g. Bryan A. Garner*, Black's Law Dictionary* 9th ed. (St, Paul Minn.: West, 2009) at 1096.

[21] See e.g. *State v. Finnegan, Peter* 103 NW 155, 127 Iowa 286 (Iowa, 1905) (hereafter *State v Finnegan*)

[22] *Vick v. Howard* (1923) 136 Va. 101, 109. See Charles Proctor, *Mann on The Legal Aspect of Money* 7th ed. (OUP, 2012) at 74 (§2.25)

[23] R.S.C., 1985, C. C-52

clearly recognizes that there may be "payment of money" other than in Canadian coins and banknotes, except that such payment is not "a legal tender."

Unless adopted by a state as its own,[24] foreign currency is not legal tender. Moreover, for a long time the law has been ambivalent as to the treatment of foreign currency as money. For example, until 1975 it was settled in England that an action as well as a judgment for the enforcement of a foreign currency obligation had to be expressed in the sterling equivalent at the day of the breach. This was as if the case involved the breach of a promise to give a specified quantity of commodities and not specific sum of money. [25] Stated otherwise, the action was not perceived to be for the enforcement of a monetary debt but rather for damages for a breach of contract, in which it was the responsibility of the creditor to mitigate the loss by purchasing the commodities on the day of breach. This position was however rejected in *Miliangos v. George Frank (Textiles) Ltd*[26] where having treated the foreign currency as 'money' the House of Lords held that in a case involving a foreign currency debt the claim may be submitted and judgment may be given in the foreign currency, or else, in the sterling equivalent of the day of actual payment. [27]

Recently, it became common to define 'money' in private law legislation as including foreign currency without conferring on the latter the legal tender quality. For example, under s. 1(1) of the *Ontario Property Security Act*,[28] "money" is defined to mean "a medium of exchange authorized or adopted by the Parliament of Canada as part of the currency of Canada or by a foreign government as part of its currency." Effectively this language expands the definition to include any sovereign national currency, and not only that of Canada. Also in the US, UCC Section 1-201 (24) defined 'money' to mean "a medium of exchange currently authorized or adopted by a domestic or foreign government … .". More broadly, and yet to the same end, under s. 13 of the *Currency Act*,

> (1) Every contract, sale, payment, bill, note, instrument and security for money and every transaction, dealing, matter and thing relating to money or involving the payment of or

---

[24] For example, the US dollar is legal tender in Ecuador. See e.g. "Historical Review of the Central Bank of Ecuador" available online <https://www.bce.fin.ec/en/index.php/history> accessed 16 July 2018; as well as "Currency in Ecuador", <https://en.wikipedia.org/wiki/Currency_of_Ecuador#2000_Dollarization> accessed 16 July 2018.

[25] *Re United Railways of the Havanas and Regla Warehouse Ltd*. [1961] AC 1007.

[26] [1976] AC 443

[27] See in general Vaughan Black, *Foreign Currency Claims in the Conflict of Laws* (Oxford and Portland, Oregon, Hart, 2010)

[28] RSO 1990, c P.10.

> the liability to pay money shall be made, executed, entered into, done or carried out in the currency of Canada,[29] unless it is made, executed, entered into, done or carried out in
>
> (a) the currency of a country other than Canada; or
>
> (b) a unit of account that is defined in terms of the currencies of two or more countries.

Is foreign currency the only type of non-legal tender money? While "[t]he right of issuing notes for payment of money, as part of the circulating medium" is said to belong to "the supreme power in every State,"[30] there is a solid line of case law from which it may be concluded that 'money' is not limited to state-issued currency. Thus, in *Miller v. Race*, (1758), referring to banknotes issued by the Bank of England prior to them becoming eligible for a legal tender, Lord Mansfield observed that they were "treated as money, as cash, in the ordinary course and transactions of business, by the general consent of mankind." He went on to conclude that this "[gave] them the credit and currency of money, to all intents and purposes" so as to be 'money',[31] the latter being "whatever common consent has fixed upon as a sign denoting a certain value."[32]

Subsequently, albeit dealing with a coin, Darling J. expressed his view in *Moss* v. *Hancock* (1899)[33] that "Money" is

> that which passes freely from hand to hand throughout the community in final discharge of debts … being accepted equally without reference to the character or credit of the person who offers it and without the intention of the person who receives it to consume it …

Along the same lines, Duff CJ said in *Reference Re Alberta Statutes* (1938)[34]

> … money as commonly understood is not necessarily legal tender. Any medium which by practice fulfils the function of money and which everybody will accept in payment of a debt is money in the ordinary sense of the words…

---

[29] While "currency of Canada" is not defined, in the Currency Act, under s. 3(2), "[t]he denominations of money in the currency of Canada are dollars and cents, the cent being one hundredth of a dollar," the latter being under s. 3(1) the monetary unit of Canada.

[30] *Emperor of Austria v. Day and Kossuth* (1861), 3 De G.F. & J. 217, 234; 45 ER 861, 868, per Lord Campbell.

[31] *Miller v Race* (n 9) at 401.

[32] (1758), 2 Keny 189, 199; 96 ER 1151, 1154 [Notes of Cases in KB].

[33] [1899] 2 QB 111, 116 (hereafter *Moss v Hancock*).

[34] [1938] SCR 100, 116 (hereafter *Reference Re Alberta)*.

By saying that any medium that "by practice fulfils the function of money" is money (provided "everybody will accept [it] in payment of a debt in money"), Duff CJ shifted the focus of the discussion from what money *is* to what money *does*, or else, to the function fulfilled by money, namely, the payment of a debt. Anything that fulfills this task in a given societal point is thus 'money' regardless of what it is made of and/or who is its issuer.

Case law in the US has been to a similar end. Thus, the US Constitution[35] confers on Congress the power "To coin Money [and] regulate the Value thereof". Under other provisions of the Constitution, states are precluded from coining money and emitting "bills of credit."[36] As well, there is a long history of federal legislation restricting private coinage. However, both the legitimation of the use of any "current money", even prohibited one, and the issue and use of non-legal tender non-coined money are generally recognized.[37]

To that end, as a generic term, 'money' was said to be "any circulating medium in general use as the representative of value,"[38] or "anything that circulates as the ordinary medium of exchange in buying and selling property".[39] Accordingly, 'money' is:

> everything which by consent is made to represent property, and passes as such currently from hand to hand, whether it be the iron of the Spartans, the cowrie of the African, the gold and silver of the world, or the paper of modern Europe and America [40]

'Consent' must however be by reference to 'acceptance' in a 'community'; a bilateral agreement regarding an item will not elevate it into 'money.' For its part, acceptance in the community must lead to 'consent' to receive the item without checking the credentials of the payer, as long as it is made in good faith and without suspicion in the payer's title.[41]

3. Exchange, Community, and Money -- Chicken and Egg?

---

[35] Article 1, Section 8 cl. 5. For constitutional aspects of money issuance in the US see e.g. Thomas Wilson, *The Power 'to Coin' Money: The Exercise of Monetary Powers by the Congress* (Armonk New York and London, England: ME Sharp, 1992); and A. Khan, 'The Evolution of Money: A Story of Constitutional Nullification' [1998-99] 67 U. Cin. L. Rev. 393.

[36] US Constitution art. I, §10, cl. 1.

[37] There may however be restrictions by a few states. For the legal position in the United States see discussion by Solomon, 'Local Currency' (n 4) at 81-86.

[38] *Johnson v. State*, 52 So. 652, 167 Ala. 82 (Ala, January 1, 1910) (hereafter *Johnson v State*).

[39] *State v Finnegan* (n 21).

[40] ibid. cf *Rhodes v Lindly*, 3 Ohio 51 (1827) where payment "in good merchantable whisky" was held not to be payment in money presumably in the absence of proof as to its acceptability as such.

[41] cf. *London Joint Stock Bank v. Simmon* [1892] AC 201 (HL)

According the case law discussed above, whether something is 'money' depends on its *acceptance in the community as a medium of exchange for the discharge of debts.* There is no obligation to accept as money something which is not 'legal tender.' However, arguably, acceptance in a community of something as money may give rise in each case to a rebuttable presumption of consent or advance agreement by a member of that community to accept that thing as money at least when tendered in payment by a member of that community.[42] Are then 'acceptance' and 'community' two distinct factors courts should consider in assessing whether something is 'money'?

From the perspective of economic sociology, the answer is negative. For any practice to be accepted, it must already be organized within the boundaries of a community, therefore, as a norm, "acceptance" implies an already-existing community. Émile Durkheim argued that morals and norms which bind a community are continuously reproduced through everyday practices, and that there is no proverbial chicken preceding the egg, or egg preceding the chicken, when it comes to norms and society.[43] Norms create society, while society creates norms.

Marcell Mauss extended some of Durkheim's insights to his analysis of economic exchange. Mauss argued that exchange relations are by definition social relations, which operate through formal and informal rules, with collective symbolic, and moral dimensions, and that exchange *creates* social relations.[44] Mauss's own analysis compared the gift economy in multiple "primitive" societies, and how giving and receiving gifts ought not to be seen as acts of generous benevolence, but rather cultivate relations of obligation and networks of reciprocity.[45] Exchange relations, in line with the chicken and egg, are postulated to create social bonds, and are organized by the social bonds. Communities are the product of exchange, and networks of exchange constantly reproduce communities.

Money, in this tradition, has some unique features, but is not that unique in the framework of exchange analyzed by economic sociology and economic anthropology. Emphasizing the unique aspect of capitalist money, sociologist George Simmel claimed that capitalist money is distinct because it is an abstract unit of value, which emphasizes "quantity" over "quality."[46] Inspired by some of Karl Marx's analysis of the capitalist commodity form, Simmel argued that capitalist money transformed qualitatively specific objects, and the

---

[42] For a statutory recognition of this principle, albeit probably only in connection with the use of foreign currency, see e.g. Section 1 of UNMIK/REG/1999/4 of 2 September 1999 REGULATION NO.1999/4 ON THE CURRENCY PERMITTED TO BE USED IN KOSOVO (available online: <http://www.unmikonline.org/regulations/1999/reg04-99.htm> accessed 12 July 2018) providing that "Parties to a contract or any other voluntary transaction may denominate such transaction in any currency agreed upon by the parties. Unless proven otherwise, such an agreement shall be deemed to exist with regard to any foreign currency that is widely accepted in the territory of Kosovo"

[43] E. Durkheim and K.E. Fields, *The Elementary Forms of Religious Life* (New York, Free Press, 1995).

[44] Bill Maurer, 'The Anthropology of Money' [2006] 35 *Annual Review of Anthropology,* 15-36.

[45] Marcel Mauss and W. D. Halls, *The Gift: The Form and Reason for Exchange in Archaic Societies* (W. W. Norton 1990).

[46] G. Simmel and D. Frisby, *The Philosophy of Money* (Routledge 2004).

qualitatively specific social relations and individuals who produced them, into goods and services to be exchanged in the abstract and impersonal capitalist market.[47] Simmel thus argued that the capitalist money economy tended to flatten and homogenize social relations.

However, others since Simmel, especially the sociologist Viviana Zelizer, have shown that despite the features of capitalist money identified by Simmel, like Mauss's gift exchange, money still creates relations of reciprocity, and is morally bounded.[48] Like all systems of exchange, money can only be exchanged for other units of money, or exchanged for other goods and services, if there is social acceptance regarding its legitimacy. This legitimacy has multiple dimensions. It needs to be accepted as a store of value, and of equal importance, the exchange is made possible only if those engaging in the exchange agree that the goods and services are operating within the boundaries of what is socially permitted.

Whether or not there is a sovereign state conferring this legitimacy is not central to this sociological view of money. The currency issued by the sovereign state is but one variant of money, albeit a historically prominent one which became central to the modern "political economy" described by economic historian Karl Polanyi.[49] Furthermore, on its own, currency issued by the State may fail to become 'money.' More generally, if an individual, group, or a unit of government tries to introduce a new money or scrip into circulation, but no one accepts that it represents value, and no one is willing to therefore engage in the "magic", which converts one specific use-value (e.g. goods) into an abstract exchange-value, this is not *de facto* money. This is the "magic" of money, sometimes called "commensurability" by some sociologists, in reference to the social codes that enable making commensurable, or equivalent, one thing to

---

[47] Karl Marx's monumental three-volume *Capital* begins with his analysis of the peculiarity of the capitalist commodity form. In the first pages of Volume I he identifies what he views as the essential features of the commodity form. Here he makes his famous distinction between "use-value" and "exchange-value." Use-value is what is qualitatively specific about a commodity; specific labour skills, specific people in a specific place, specifics materials, and hence, creating a very specific object with a particular use. This use-value is a necessary feature of the capitalist commodity form, and not in itself unique to capitalist commodities. But what is peculiar to the capitalist commodity form, according to Marx, is the extreme manner by which use-values are transformed into exchange-values. Exchange-value is how value is identified in a commodity, which in capitalism entails erasing, even denying, the socially specific labour relations, labour skills, and labour time that goes into the production of a commodity – which he claimed was the source of surplus value, or profit - and then in determining its exchange-value. Hence, the twofold nature of the commodity form, according to Marx, lies in this combination of its specificity as a use-value, and then its transformation into a generic exchange-value through the historic creation of "abstract labour" made possible by capitalist relations of production. In K. Marx, *Capital: A Critique of Political Economy; Volume I.* London: Lawrence & Wishart, 1983. See also Moishe Postone, *Time, Labor, and Social Domination: A Reinterpretation of Marx's Critical Theory* (New York and Cambridge, Cambridge University Press, 1995).

[48] cf Viviana Zelizer, *The Social Meaning of Money* (Basic Books 1994); and Viviana Zelizer, *The Purchase of Intimacy* (PUP 2007).

[49] Karl Polanyi, *The Great Transformation* (Beacon Press 1957). This work is a social and intellectual history of the development of the capitalist market economy and the development of the modern state's management of the crises of capitalism.

another.[50] An everyday transaction, made so banal by the capitalist money economy, in which one exchanges, for example, a single American dollar bill for a package of chewing gum at a local corner store, contains a complex world of trust, social solidarity, communal ties, legitimacy, and moral boundaries. This is as true for a community currency as it is for state-issued currencies.

This sociological view converges with the legal view that money cannot operate where there is not sufficient consent around its legitimacy and its representation of value. In *Moss. v. Hancock* (1899)[51] there is specific reference to circulation which is "accepted" within "the community." In *Reference Re Alberta Statutes* (1938),[52] there is recognition of the *de facto* "practice" of accepting money as payment of debt, and where "everybody," although not explicitly identified as such in the judgement, ought to be understood as "everybody in the community."

As well, in the sociological perspective taken here, controversies are also telling markers of whether or not a community exists.[53] Debates over boundaries of appropriate rules and norms suggest that a group of individuals are relationally oriented around a shared project in which individuals who might have distinct interests also have a stake in defining the boundaries of appropriate behaviour and membership in a community. For example, refusal to accept state-issued paper money with one of its corners torn off, does not in itself undermine the legitimacy of the money in general. On the contrary, it reproduces the boundaries of acceptable money. Or, as another example, the moral claim that a child cannot be sold as a commodity,[54] that is, that a human being is not commensurable to units of exchange-value represented by money, also does not undermine the legitimacy of money. Here there is a possible divergence between the legal and sociological views. The legal view of money emphasizes practical consensus within a community. The economic sociologist agrees that practical consensus is likewise essential to money, but also sees contestation over appropriate use of money as defining a community of users and the practical viability and acceptance of money.

With this view of money exchange as constituting a community and vice versa, Community Currencies (CC's) unquestionably constitute communities. Whether they entail an exchange of goods, services, or paper money, they are privately issued systems of money, accruing credit and discharging debt between actors who adhere to the formal and informal rules of the currency framework. While CC's are often designed to serve a small, pre-existing group,

---

[50] Bruce G. Carruthers and Wendy Nelson Espeland, 'Money, meaning, and morality' [1998] 41(10) American Behavioural Scientist 1384 – 1408.

[51] *Moss v Hancock* (n 33).

[52] *Reference Re Alberta* (n 34).

[53] See L. Boltanski and L. Thévenot. *On Justification: Economies of Worth* (Princeton: Princeton University Press, 2006).

[54] cf Viviana Zelizer, *Pricing the Priceless Child: The Changing Social Value of Children* (Basic Books 1985).

they can also be used as schemes to foster civic engagement and collective solidarities.[55] They are therefore explicitly relational, not only reflecting pre-existing community relations, but sometimes organized to strengthen a community. To the extent that they take on a money form, token form, or any unit which represents a unit of credit or exchange, they must retain the feature of being a means of accounting for exchange-value. They cannot, and often do not, survive if they do not meet some minimal level of economic viability as a means of measuring and exchanging value.[56] And if there are debates among its users, this is often a good sign of an active and engaged community.

4. How far ought Acceptance be free? Lessons from History

History proves the crucial importance of 'acceptance' of a circulating medium for the characterization and success of an item of property as 'money'. History also teaches us that suffice it for economic conditions and selfish motives to generate the societal acceptance of something as money.

Thus, during the 19th century in the US, tokens, issued by transportation companies and fractional paper currencies, issued by municipal bodies, were designed to meet shortages in legal tender.[57] Scrips issued in the US by mining companies between 1820 and 1940, serving as advance payments of wages[58] are said to be the forerunners of community currency.[59] However such scrips were designed to facilitate payment for goods and services provided by the issuer;[60] if they did not circulate in the community they fell short of being 'money.'

Subsequently experimentation took place in small towns on both sides of the Atlantic amidst the pre-WWII Great Depression.[61] An uncontested milestone came to be known as the "Miracle of Woergl" or the "Woergl Experiment." It took place in the small Tyrolese town of Woergl (Wörgl) in Austria in the early 1930s.[62] To fight unemployment and enhance economic

---

[55] Jérôme Blanc *Penser la pluralité des monnaies à partir de Polanyi : un essai de typologie*' dans *Socioéconomie et démocratie: L'actualité de Karl Polanyi* (ERES 2013), 241-269. doi:10.3917/eres.lavil.2013.01.0241.

[56] Michael S Evans, 'Zelizer's Theory of Money and the Case of Local Currencies' [2009] 41 Environment and Planning, 1026-1041.

[57] Richard H. Timberlake, "The Significance of Unaccounted Currencies" (1981) 41:4 Journal of Economic History 853.

[58] Richard H. Timberlake, "Private Production of Scrip-Money in the Isolated Community" (1987), 19:4 Journal of Money, Credit and Banking 437 (hereafter Timberlake, 'Production of Scrip').

[59] Krohn, 'Economic Analysis' (n 6) at 53, 55.

[60] Timberlake, 'Production of Scrip' (n 57) at 440.

[61] Krohn, 'Economic Analysis' (n 6) at 55, and further below in this Part.

[62] Earlier experimentation in a similar scheme took place in 1932 in the little town of Schanenkirchen in Germany. See: Blanc 'Local Currencies' (n 3). However, this experimentation "did not leave much trace behind." See: *The story of Wörgl* (in the footsteps of Shwarz, Fritz, *The Experiment in Worgl.* Verlags-Genossenschaft Freies Volk.

activity, Mayor Michael Unterguggenberger put a small amount on deposit with a local savings bank. Against the security of the deposit *stamp scrip* was issued in the amount of the deposit. There was no final redemption, but the town treasury and local banks would redeem each bill against a 2% fee.

Stamp scrip is a medium of exchange for which the holder pays a small monthly "user fee", effectively "negative interest" charge. In Woergl a "Relief Contribution Stamp" was needed to be applied each month at 1% of face value. This user fee gave the bearer the incentive not to hoard the bills as each month they depreciated. It thus encouraged spending and enhanced economic activity in a deflationary environment. Moreover, the disadvantages of redemption at 2% were at any given moment greater than the probable disadvantages of deferring payments at the cost of 1% so that the redemption privilege could not hurt circulation. Municipal taxes paid with the scripts were to a large extent promptly used by the town if only to avoid depreciation.[63] In short, transactions velocity had gained tremendous momentum. The economy quickly turned around and the mayor successfully accomplished a long list of municipal projects. The 1% anti-hoarding fee proved extremely effective to generate work, as "[i]n fact, every one of the schillings in stamp scrip created between 12 and 14 times more employment than the normal schillings circulating in parallel."[64]

A more ambitious Great Depression project, albeit less successful, and yet to the same end, was launched in the Province of Alberta in Canada by Premier William Alberhart as part of implementing a social credit vision.[65] Under Section 2 of *The Prosperity Certificates Act* of 1936,[66] the Provincial Treasurer of Alberta was "authorized to issue and reissue credit certificates to any persons who may be willing to accept them" in connection with public works undertaken by the Provincial Government, existing Government services, agreements with municipalities relating to unemployment relief projects, and designated public expenditures. Such certificates were stated under Section 3 to "be known as Alberta Prosperity Certificates." [67] They were to be redeemable after two years at their face value provided that upon redemption

---

Bern, Switzerland. 1951), available online: <https://www.hanseisenkolb.de/woergl.htm> accessed 16 July 2018 (hereafter Schwarz, 'Story of Worgl').

[63] Effectively however only about a third of the issue was re-issued by the municipal administration to avoid depreciation by reference to the regular Schilling.

[64] Bernard Lietaer, 'The Wörgl Experiment: Austria (1932-1933)' (Currency Solutions for a Wiser World, 27 March 2010) <http://www.lietaer.com/2010/03/the-worgl-experiment/> accessed 16 July 2018.

[65] For a brief historical outline of social credit in Alberta visit e.g. <http://www.maapaa.ca/past-productions/bible-bill-the-gospel-musical/bible-bill-about-social-credit-in-alberta/> accessed 16 July 2018.

[66] SA 1936 Chapter 4.

[67] Various relevant documents are available online at: <https://www.gosling.ca/apc/AlbertaProsperityCertificates.pdf> accessed 16 July 2018.

they bear 104 stamps, each reflecting an 1% weekly 'user fee'[68] designed to discourage hoarding and encourage spending. Provisions were also made for early redemption, payment of certain taxes,[69] and subsequently, upon the discontinuance of issuance.[70]

The project failed on the key element of acceptability: "the hassle and expense of the stamps made the certificates unpopular with the public." Inconvenience was caused also by "the tiny postage-style stamps (smaller than 1 cm^2 (0.16 sq in)) [that] were prone to falling off" and the program was cancelled after about a year.[71]

This early history of community currency proves that 'acceptance' may be motivated by necessity and still be effective to turn the scrip into 'money'. For sure the unemployed will work even for an 'inferior' money particularly as they know that local merchants will accept it for a lack of or inadequate availability of any better means of payments circulating in an impoverished town such as Woergl. Accordingly, the acceptance of a community script money as well as of that of digital currency may be motivated by lack of confidence in the state-issued money something which is not inconceivable particularly in a failing state. At the other extreme at yet to the same end, participation in a digital currency scheme could be motivated by benefits from its underlying technology. In short, neither 'economic duress' nor even greed will disqualify the acceptance of the privately issued 'money' driven by it.

5. Does Digitization Change the Meaning of a 'Monetary' Community?

Does digitization change the relationship between money, community, and the meaning of a monetary community? Is a group defined strictly by the use of a currency constitute a 'monetary community'? This issue has arisen with digitalization. Heretofore, a community adopted a currency so as to turn it into a community currency. But has digitalization itself--- or the participation in a digital currency scheme -- turned participants into a community members? To what extent, for example, do permissionless cryptocurrencies as subtypes of digital currencies share the same features as Community Currencies (CC's)? More specifically, do those users constitute a community in any conventional sense of "community"? This is important if only in order to determine whether the mere existence of a community within which it the use of something as 'money' is accepted, renders that 'something' 'community money.' The other side of the coin, and this may be only a matter of classification, if digitalization does not create a 'community', is the currency it uses—assuming it is 'money' – a community currency?

---

[68] ibid, Sections 5, 6 and 8.

[69] ibid, Section 10.

[70] ibid, Section 10a added under *The Prosperity Certificate Act Amendment Act*, SA Chapter 83, 1937.

[71] Anon, "Prosperity Certificate", available online: <https://en.wikipedia.org/wiki/Prosperity_certificate> accessed 16 July 2018. See also James Powell, *A History of the Canadian Dollar* (December 2005) at 94-95. available online: <https://www.bankofcanada.ca/wp-content/uploads/2010/07/dollar_book.pdf> accessed 16 July 2018.

At first glance, blockchain (BC) users might not appear to constitute a community. They are de-territorialized, and distributed geographically and socially in networks of exchange. They accrue credits and discharge debts in applying BC's highly formalized distributed network, which looks to be free of moral and social boundaries. They might therefore appear like the highest expression of money's capacity to abstract market relations of exchange from grounded social relations.

The reality, however, is quite different. As economic sociologist Nigel Dodd has argued, Bitcoin (a blockchain-utilizing currency), for example, has a thriving social life.[72] The social organization of Bitcoin is not that of a distributed network which mimics its formal characteristics, but rather a community with hierarchy, inequality, and other attributes rife with dispute. The disputes cannot be clearly separated as either normative or technical. Controversies over reforms, updates, and resultant forks, reveal that the technical *is* the normative. Satoshi Nakomoto's white paper is treated like a constitution around which the foundational mission of the coin is debated and interpreted. [73] The Bitcoin Foundation, founded in 2012, was established by a group trying to establish an authoritative claim to leading the community, and mediating between the technical and the normative. Yet its role is also disputed. Such disputes do not indicate dysfunctionality, but indicate sociologically a community of users who care about the use and design of Bitcoin, and its socio-political organization.

Given that blockchain currencies are not just money, but also *technologies,* they cannot be freed of human contestations over the use, reform, and vision of their technology. Even privately controlled coins, such as Ethereum, cannot escape the dynamics of jockeying for control over the coin's destiny. The community around Ethereum actively debates its purpose and technical specifications, sometimes wrestling control away from its founders. This jockeying is perhaps magnified by added functionalities such as smart contracts, which could be seen as use-values integrated into exchange-values.

Ethereum's founders try to maintain a balance by heading research and design, and taking in community input, but cannot exert absolute control on the coin's technical fate. If enough users mobilize to effect and adopt a reform, creating a definitive and applied fork, then a new sub-community has formed. Digitalization therefore de-territorializes and expands users geographically. It also potentially increases numerically the volume of actors participating in a monetary community. However, digitalization does not fundamentally change the essential sociological features of a monetary community. These features include the *de facto* pre-condition of consent without which no monetary exchange can successfully operate; a sufficiently high degree of trust and normative boundaries enabling actors to agree that one unit of value is commensurate to another; organizational hierarchy and sets of rules of behaviour which are binding such that that most actors abide by them; and at the same time, a degree of debate about what is wrong and right behaviour, illustrating a moral investment in the collective project.

---

[72] Nigel Dodd, 'The Social Life of Bitcoin' [2017] 35 *Theory, Culture, and Society* 3, 35 – 56.

[73] See Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System" (2008), available online: <https://nakamotoinstitute.org/bitcoin/#selection-7.4-9.39> accessed 16 July 2018

Nonetheless, even as participation in a digital currency network may be taken to create a 'community' it does not follow that every digital currency is 'money'; simply stated, as explained below, not every cryptocurrency is 'money' even where it is envisaged as such. This is true for both permissionless networks and permissioned schemes. This is so notwithstanding the fact that 'community' indicates 'acceptance'. The reason is that to be money the digital currency ought to be 'accepted' as money. The reality however is that notwithstanding its 'currency' characterization, digital currency may be accepted other than for payment for goods and services but rather for other purposes such as media of investment or else as tokens accessing new technologies.[74] Indeed, as discussed, motivation for acceptance is a non-issue; and yet, acceptance itself, no matter how motivated, ought to be as 'money.'

While participants in a centralized network or permissionless decentralized scheme may be required to formally agree to accept the relevant digital currency as 'money' the existence of such an agreement may not be conclusive as to its enforcement or the actual use of the digital currency. Stated otherwise, an advance agreement to 'accept' something as money will not suffice to turn that something into money; rather, actual acceptance as money is required. An actual advance agreement to accept may be a helpful building block but otherwise is neither required nor sufficient element in the characterization of something as money.

A broader issue to be explored is whether or to what extent the socio-economic approach is accepted by the law. This issue addressed in the ensuing three parts of this chapter.

6. Privately Issued-Money: Does Law Converge with Economic Sociology?

Broad judicial statements effectively defining 'money' as anything accepted in a community as a medium of exchange were not made in cases involving privately issued currency. Nor were these statements addressed specifically privately issued money. In short, while the principle pronounced in these cases was broad enough to cover privately issued money this coverage was not an essential element in the *ratio* of each case. For example, *Moss* v. *Hancock*[75] was concerned with a state-issued coin used as a collector's item rather than money. *Reference Re Alberta Statutes*[76] dealt, among other matters, with the power of a Canadian province to issue circulating debt instruments.

---

[74] See Part 8, *infra.*

[75] *Moss v Hancock* (n 33).

[76] *Reference Re Alberta* (n 34).

At the same time, *State v. Finnegan*[77] and *Johnson v. State*[78] dealt with the extension of the definition of 'money' to non-legal tender banknotes issued by private banks. This subject is discussed below. Subsequent parts of this chapter consider the application of this discussion to community currencies in general and cryptocurrencies in particular.

Thus, in post-Medieval England, goldsmiths, the forerunners of modern commercial bankers, issued notes either against the deposit of coined money or by way of loans made out of such deposits.[79] Already towards the end of the 17th century, it was judicially acknowledged in England that "[t]he notes of goldsmiths … are always accounted among merchants as ready cash."[80] However, a creditor could refuse a tender of goldsmith's notes and insist on payment in metallic money.[81] Underlying the latter rule was apparently the risk of the goldsmith's default. Indeed, insofar as a goldsmith was authorized to lend money deposited with him,[82] the risk of his failure to meet his obligations to repay deposited money, leading to his insolvency, could not be overlooked, irrespective of his good reputation.

The prevailing mercantile view was nevertheless that an accepted payment in goldsmith notes was absolute. In in an open defiance to that view, [83] the payment in goldsmith notes was held to be conditional on payment in coin by the goldsmith.[84] This principle, as pronounced by Lord Holt in *Ward v. Evans* (1702),[85] was stated to be limited to the taking of a goldsmith note for a *precedent* debt.[86] It was premised on the view that, in the absence of agreement to the contrary, "paper is no payment where there is a precedent debt", so that "the acceptance [by a

---

[77] *State v Finnegan* (n 21).

[78] *Johnson v State* (n 38).

[79] The ensuing discussion on the goldsmiths' system and banknotes draws on B. Geva, *The Payment order of Antiquity and the Middle Ages: A legal History* (Hart 2011) at 467- 484.

[80] *Tassell and Lee v Lewis* (1695), 1 Ld. Raym. 743, 744, 91 ER 1397, 1398 (hereafter *Tassell v Lewis*).

[81] ibid.

[82] ibid.

[83] See *Ward v Evans* (1702), 2 Ld. Raym. 928 at 930, 92 E.R. 120 at 121 (K.B.) (hereafter *Ward v Evans*), where Lord Holt C.J. stated the rule "notwithstanding the noise and cry, that it is the use of Lombard-Street, as if the contrary opinion would blow up Lombard-Street..."

[84] See in general, J Milnes Holden, *The History of Negotiable Instruments in English Law* (The Athlone Press, 1955, rep. 1993, WM. W. Gaunt & Sons) at 85-86, 109-11 (who nevertheless appears to overlook the distinction, set out below, between the situation where goldsmith note was taken for an antecedent and when it was taken for a present debt) (hereafter Holden, 'Negotiable Instruments').

[85] *Ward v Evans* (n 83).

[86] Above note 83.

creditor] of... a [goldsmith's] note is not actual payment."[87] Rather, under the conditional payment principle, "when such a note is given in payment, it is always intended to be taken under this condition, to be [absolute] payment [only] if the money be paid thereon..."[88] Where the condition was broken, the paying debtor's liability was resurrected. The condition was dispensed with, so that the paying debtor was discharged, upon the creditor's failure to demand payment from the goldsmith "in convenient time."[89]

For our purposes it is relevant to note that whether or not they conferred final discharge. Goldsmith notes, and their successors, private banknotes, circulated and were accepted in payment of debts, so as to have strong distinctive monetary features. Two immediate relevant conclusions may be drawn. First, where an item of property circulates as a means of payment, in treating it as money courts may not insist on it being accepted in absolute payment. Second, while considering the acceptance of something as a means of payment is a matter to be determined as either fact or possibly even common knowledge, the last word as to the implication of that acceptance is given to the court and not the community within which that item circulates.

7. Is the Banknote Unique? The Reach of Its Legal History

At present banknotes are issued in the UK by only a few designated banks in Scotland and Northern Ireland.[90] Such banknotes are not accorded a legal tender status but are accepted as payment as a matter of practice.[91] They are required to be backed by earmarked sterling obligations of the Bank of England.[92] Hence the holder of such banknotes is protected against the risk of default by an issuing bank so that their use as money does not raise the question as to the application of the authorized 'conditional payment' principle. In any event, arguably, nowadays, whether a note is given for a precedent debt or contemporaneous consideration is unlikely to play a role is determining whether it is given in conditional or absolute payment. Taking into account the likely anonymity of the transaction, not to mention reliance on the issuer and the possible

---

[87] ibid.

[88] ibid.

[89] ibid. Compare *Tassell and Lee v. Lewis* (n 80) at 744 (Ld. Raym.) and 1398 (E.R.) where the report cites *Hopkins v. Geary* (1702), Hil.1 Ann. B.R. Guildhall. See also *Hill & Al. v. Lewis* (1693), 1 Salk. 132 at 133, 91 E.R. 124 at 125, (K.B.) where Lord Holt C.J. instructed the jury that "what should be thought convenient time, ought to be according to the usage among traders..."

[90] See *Banking Act* Part 6, particularly s. 213, 2009 c. 1. For HM Treasury Consultation Document, *Banknote issue arrangements in Scotland and Northern Ireland* (July 2005), visit <http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/media/7/0/banknote_issue_arrangements_210705.pdf > accessed 16 July 2018.

[91] See e.g. Briefing Note 122/08, *The Status of Scottish and Northern Irish Banknotes* (Research and Library Service Northern Ireland Assembly, 24 July 2008) available online: <http://archive.niassembly.gov.uk/io/research/2008/12208.pdf> accessed 16 July 2018.

[92] *Scottish and Northern Ireland Banknote Regulations* 2009, SI 2009/3056 issued by the Treasury under ss, 215-220 of the 2009 *Banking Act*.

availability of earmarked backing assets, the chance is that a court will find the parties intended absolute payment by banknote.[93]

Nonetheless, a few hurdles may exist in relying on these on this legal history of the banknote as a basis for recognizing as money community currencies in general and cryptocurrencies in particular. To begin with, at its inception, the banknote was a receipt for the deposit of coined money. True, its evolution into 'money' in its own right paralleled its transformation into a credit obligation of the banker. However, it is uncontested that the banknote has retained its image, which as a matter of law is certainly baseless,[94] of being a claim to a deposit for safekeeping of coined money. To put it differently, the history of the banknote as a credit obligation goes hand in hand with the evolution of the view that funds on deposit with a commercial bank constitute 'commercial bank' money. In more general terms, the view of the bank as an issuer of money evolved from its perceived position as a guardian of money.

Furthermore, it is tempting to argue that the full backing of Scottish and Irish banknotes by earmarked sterling obligations of the Bank of England is crucial for their acceptance as money. Indeed, in both the US and Canada non-legal tender banknotes issued by private banks circulated in parallel to those of the state but not without difficulty and arguably with the need of public authorities to provide safety nets to the public using them.[95]

True, like banknotes, community scrips are typically denominated in the official unit of currency and frequently backed by an earmarked funds albeit possibly of commercial bank money. At the same time such a fund is neither regulated by legislation nor by deposit insurance. Accordingly, scrips may be considered to be one step away from banknotes so as not be able to derive monetary qualities from the banknote precedent.

It is however not inevitable to have such a strict view on the law governing the monetary nature of the banknote. Rather, it is arguable that the banknote history can teach a broader lesson on the possible acceptance of any item of property as money so that the links to coined money and the backing of earmarked safe funds are factors in the acceptance by the community but no more than that. Thus, the argument goes, the key for acceptance is trust either in a circulating valuable asset or in the issuer of a circulating claim. If a court finds acceptance of a scrip as money notwithstanding lack of connection to a coined money or to a full reserve, the scrip is nevertheless 'money'. Stated otherwise, a reliable safety net to users is a strong factor in proving the acceptance in the community; nevertheless, its absence or weakness are not determinative in denying the scrip the status of 'money' if its issuer is trusted so that the script is anyway accepted in the community.

---

[93] For such factors see *Re Charge Card Services Ltd.* [1988] 3 All ER 703 (CA)

[94] The classical case for the banker mere debt obligation on a deposit is *Foley v. Hill* (1848), 2 HLC 28: 9 ER 1002 (HL)

[95] See e.g. Ben Fung, Scott Hendry and Warren E. Weber, *Canadian Bank Notes and Dominion Notes: Lessons for Digital Currencies*, Bank of Canada Staff Working Paper 2017-5 <https://www.bankofcanada.ca/wp-content/uploads/2017/02/swp2017-5.pdf> accessed 16 July 2018.

At the heart of this controversy is a broader question as to the meaning of 'money'. Indeed, we have seen that effectively in the footsteps of *Moss* v. *Hancock* (1899)[96] and *Reference Re Alberta Statutes* (1938)[97] the transferability or acceptance in a community of an item of property in the discharge of debts turns this item to 'money.' At the same time, modern literature keeps emphasising that for an item to qualify as 'money,' its acceptance must be as a medium of exchange, a store of value[98] and a unit of account.[99] For sure, the banknote has met these requirements, which go beyond what was laid down in these two cases. It could thus be argued that denomination in a national unit of account and issue/regulation by some state-sanctioned monetary authority (whether a mint or central bank with authority over monetary policy) will very likely be needed to turn a thing into 'money.' In short, the argument goes, while the failure of general acceptance deprives a thing of the quality of money in legal estimation, the converse is not necessarily true, so that without additional feature that thing will not be 'money.'

As a matter of principle, this reasoning is to be rejected. Literature requiring such high standard ought to be taken to focus on the qualities of 'good money' rather than on what 'money' is. Another way to put it is that having in full all such features enhances the chances of an item to be accepted as 'money' and thus to be 'money' but their absence does not disqualify it in advance from so being. There is no reason for the law to defy history and sociology. For sure "the iron of the Spartans, the cowrie of the African, the gold and silver of the world" were accepted as 'money'[100] without necessarily having in full all monetary features enumerated above. Accordingly, 'money' is said to be "something generally accepted as a medium of exchange, a measure of value, *or* a means of payment";[101] it does not even have to embody *all* such features.

In the final analysis the issue is whether the lesson from the legal history of the banknote is strictly limited to the banknote and if not, how far it can be extended. Can it be stretched all

---

[96] *Moss v Hancock* (n 33).

[97] *Reference Re Alberta* (n 34).

[98] William Stanley Jevons, *Money and the Mechanism of Exchange* (Henry S King & Co 1875), p.13 does not include this element in the definition. Indeed, money is a store of value only in the sense of being a "surplus" liquid resource of stable value available in one's hands for acquiring new commodities as may be needed and wished.

[99] Nigel Dodd, *The Sociology of Money: Economic, Reason & Contemporary Society* (Continuum 1994), p. xv. For Geoffrey Ingham, *The Nature of Money* (Polity Press, 2004) 198, "money" is effectively something that, "[r]egardless of [its] particular form and substance", answers the promise and description provided (and measured) by the unit of account.

[100] ibid. cf *Rhodes v Lindly*, 3 Ohio 51 (1827) where payment "in good merchantable whisky" was held not to be payment in money presumably in the absence of proof as to its acceptability as such.

[101] See the definition of "money" available at: <http://www.merriam-webster.com/dictionary/money> accessed 16 July 2018. (emphasis added).

the way to be a mere example to the broad principle pronounced in *Moss* v. *Hancock* (1899)[102] and *Reference Re Alberta Statutes* (1938)?[103] We are inclined to answer in the affirmative. In this context it may be worthwhile to recall that insofar as it may have conferred only conditional payment, even the goldsmith note itself was not have perfect monetary qualities and nevertheless was taken to be 'money.'

8. Do Cryptocurrencies Constitute 'Money'?

Case law in the US has treated Bitcoin as money,[104] but also considered it to have "a long way before it is the equivalent of money."[105] Such case law was context-driven and thus cannot be used as a basis for a general principle. Accordingly, this part will examine in general terms the modifying conditions for the application of the preceding analysis to digital currencies. Since it has already been established that whether something serves as money depends on acceptance, which is a question of fact, there is no preclusion for digital currencies to be 'money' if they are so accepted. Hence, this part will address specific factors that may affect the monetary use of cryptocurrencies, namely their acceptance as money.

As already pointed out, centralized schemes and permissioned decentralized ones could be used as substitutes for scrips in 'traditional' access-restricted community currency schemes. As well, participants in a permissionless decentralized scheme can also be viewed as a community. Either way, unlike banknotes but like scrips, community digital currencies are issued outside the banking system. Unlike banknotes and scrips, cryptocurrencies typically use a unit of account different from that of the national currency and do not have an issuer. Do these modifying conditions affect the application of the previous analysis?

There is no inherent limitation for a centralized digital currency to be money as it is not conceptually different from a scrip-based community currency. The difficulty is with cryptocurrencies, which are self-anchored mathematical creatures.[106] They hinge on cryptographic algorithms, each being "a procedure or formula for solving a problem,"[107] not only

---

[102] [1899] 2 QB 111, 116.

[103] *Reference Re Alberta* (n 34).

[104] *United States v. Faiella*, 39 F. Supp. 3d 544 ((S.D.N.Y. August 18, 2014).

[105] *State of Florida v. Espinoza, Case No. F14-2923 (Fla. 11th Cir. July 22, 2016).* See article by Lalita Clozel, "Law & Regulation: Bitcoin Not Money, Fla. Judge Says, Tossing AML Charges", American Banker, 25 July 2016.

[106] Samid, 'Tethered Money' (n 9) at 14.

[107] See definition of 'algorithm' at <http://whatis.techtarget.com/definition/algorithm>, accessed 16 July 2018.

for protection against hacking but also to control the creation of new units and facilitate payments. Not being anchored to a specific tradeable asset, such as a commodity or a fiat currency, a self-anchored digital currency such as a cryptocurrency is inherently unstable, volatile, and easily amenable for speculation.[108]

The provision of an unstable unit of account is an obstacle for the monetary use of cryptocurrencies. This weakness is however not without a solution. For example, blockchains generating digital currencies denominated in the national currency have been floating in the form of a few proposed central bank cryptocurrency schemes.[109] In the US, proposals have been made for Fedcoin, being a central bank-issued centrally created cryptocurrency, to be available to the public at large.[110] Digital coins are to be centrally issued on a blockchain-style decentralized ledger, but nevertheless with the central bank being in full control of quantity, timing, and fixed value in denominations of the national fiat currency unit of account. Effectively, transactions will be validated by an independent notary nominated by the central bank. A similar proposal was made in the UK for RSCoin.[111] Another proposal is for a NationCoin, being a Regulated and Sovereign Backed Cryptocurrency (RSBC). The scheme envisages cryptocurrency coins, which as in Bitcoin, will be created by and transacted over a blockchain. However, upon their creation, the coins will be stored and released to the public by a Digital Asset Reserve, as RSBC, at the fixed value of the national unit of account. Transactions are to be verified by 'miners' who will be paid freshly minted coins.[112]

---

[108] See e.g. Samid, 'Tethered Money' (n 9) at 14–15 (on the concept of self-anchored money), and 109-110 (on self-anchoring in bitcoins). While by definition, a fiat currency is a mere abstract obligation of a central bank and its value is not anchored in a commodity, the stability of its value hinges on the powers and obligations of the drivers of that economy, which is obviously not the case for self-anchored virtual currency.

[109] See: Morten Bech and Rodney Garratt, "Central bank cryptocurrencies" (2017) BIS Quarterly Review, at 55, online: <https://www.bis.org/publ/qtrpdf/r_qt1709f.pdf>, accessed 16 July 2018. See also: Katrik Hegadekatti, "Towards Regional Monetary Unions through Blockchain Networks" (2017) MPRA paper No 82838, online: <https://mpra.ub.uni-muenchen.de/82838/>, accessed 16 July 2018; and Heike Mai, "Why would we use crypto euros? Central bank-issued digital cash – a user perspective" (2018) EU Monitor Global financial markets, online: <https://www.dbresearch.com/PROD/RPS_EN-PROD/PROD0000000000462095.PDF>, accessed 16 July 2018.

[110] See e.g. Wendy McElroy, "Fedcoin: The U.S. Will Issue E-Currency That You Will Use", *Bitcoin.com* (12 January 2005), online: <https://news.bitcoin.com/fedcoin-u-s-issue-e-c, urrency/>, accessed 16 July 2018.

[111] See George Danezis and Sarah Meiklejohn, *Centrally Banked Cryptocurrencies* (London: University College London, 2015), online: <https://eprint.iacr.org/2015/502.pdf>, accessed 16 July 2018. In part this article is too technical to the uninitiated in computer science and related subjects (including myself). "RSCoin is the core of a system of scalable and auditable transactions, not a full product" which thus could be used as a basis for either a retail or wholesale product. Email message to the author from George Danezis dated 4 December 2017.

[112] Kartik Hegadekatti and Yatish S G, "Generation, Security and Distribution of MationCoins by a Sovereign Authority" (7 Jan 2017), online: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2888347>, accessed 16 July 2018.

In principle, such schemes do not require participation by the central bank and may be privately run. Nor do they require that their currency be accorded a legal tender status. Its acceptance will hinge on the trust of participants in the system. The introduction of a potentially distrusted central counterparty to a trusted blockchain system, even if only to ensure a stable unit of account, will undermine the overall confidence in the system and may thus be a pyrrhic victory. After all, if a central counterparty is trusted to keep the unit of account stable, why would not it be allowed to do the settlement and avoid the blockchain altogether?

Indeed, in the absence of an issuer, confidence in cryptocurrencies hinges on trust in the system, or more specifically in the generation of digital coins in its blockchain in a way that will keep them secure and valuable. As for the basis of this trust, pointing at Bitcoin, Ammous explains that it is the high processing power threshold which prevents both hacking and the establishment of a manipulative untrusted central control. Both achievements secure neutrality and full benefit of decentral structure, and yet at the cost of a fixed supply of growth that cannot be made to adjust to satisfy a purely market-determined demand and hence results in price instability. At the same time, he observes, attempts in other cryptocurrencies to bypass the expensive, inefficient and wasteful Proof of Work (PoW), by other settlement mechanisms such as Proof of Stake,[113] consensus, or a trusted notary, compromise the neutrality of the system, enhance the control of the issuer, and/or require a third party verificator. Hence, he concludes, Bitcoin could be no more than a store of value,[114] while other cryptocurrencies cannot fulfill any monetary feature. Rather, they are mere tokens for designated applications.[115]

At present.[116] the blockchain also suffers from poor scalability. For example, Bitcoin can

---

[113] For the difference between proof of work and proof of stake see e.g.: <https://www.google.ca/search?rls=com.microsoft:en-CA:IEAddress&dcr=0&q=what+is+the+difference+between+proof+of+work+and+proof+of+stake?&spell=1&sa=X&ved=0ahUKEwj38Knl1azYAhUm94MKHekWAF8QvwUIJigA&biw=1094&bih=625>, accessed 16 July 2018.

[114] Not everybody is in agreement. For considering Bitcoin to be an "imperfect store of value" due to its volatility see Aaron Kumar and Christie Smith, "Crypto-currencies – An introduction to not-so-funny moneys" (November 2017) Reserve Bank of New Zealand Analytical Note Series, AN2017/07 at 2, online: <https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Analytical%20notes/2017/an2017-07.pdf>, accessed 16 July 2018.

[115] Saifedean Ammous, "Can cryptocurrencies fulfill the functions of money?" (August 2016), online: <https://poseidon01.ssrn.com/delivery.php?ID=898031068069020013084100094001115113024008049068 03>, accessed 16 July 2018.

[116] See details at e.g. Christopher Malmo, "Bitcoin is Unsustainable", *Vice: Motherboard* (29 June 2015), online: <http://motherboard.vice.com/read/bitcoin-is-unsustainable>, accessed 16 July 2018; See also e.g. John Quiggin, "Bitcoins are a waste of energy—literally", *ABC News* (5 October 2015), online: <http://www.abc.net.au/news/2015-10-06/quiggin-bitcoins-are-a-waste-of-energy/6827940>, accessed 16 July 2018.

handle at most 7 transactions per second.[117] All this militates against the monetary use of cryptocurrencies as money since economic activity requires a robust, quick and efficient processing and settlement of payments.

9. Does Community Money Bring Net Benefits? A Brief Overview

Community currency advocates are either critics of the centralized monetary system as a whole or reformers who endeavor to point at possible welfare gains realized from the use of community currencies.[118] Either way, community currencies may be used now to direct a specific share of sales proceeds for community projects, a sort of a voluntary local tax earmarked to a common goal.[119] More generally, the use of community currency is rationalized nowadays on a policy purporting to promote the decentralization of economic and political power.[120] Actual use is usually motivated by belief in external benefits.[121] According to Naqvi and Southgate,[122] "[l]ocal currencies are established to support local sustainability by incentivising spending at, and between, participants of the scheme" so "that a greater proportion of consumer spending and retailers' supply chains are kept within the specified geographical area, improving local sustainability."

Be it as it may, a positive view of community currencies is not universally shared. Acknowledging the 'initial' success of the Woergl experiment, the German Bundesbank pointed

---

[117] *See e.g.* <https://en.bitcoin.it/wiki/Scalability_FAQ#What_is_this_Transactions_Per_Second_.28TPS.29_limit.3F>, accessed 16 July 2018.

[118] Ian Schmutte, *A Basic Critique of Economic Argument for Local Currencies*, Monetary Theory and Policy: Economics 420 (2002) <https://pdfs.semanticscholar.org/d51b/97285539b645d26cf51a3c5469295cee4180.pdf> accessed 16 July 2018

[119] A good example is the Toronto Dollar scheme under which merchants redeemed community currency for 90% of its value with the rest going to charity. For an overview visit: <https://en.wikipedia.org/wiki/Toronto_dollar> accessed 16 July 2018.

[120] Solomon, 'Local Currency' (n 4) at 66-74. See also Robert Swan and Susan Witt, *Local Currencies: Catalysts for Sustainable Regional Economies*, Schumacher Center Essay 1995, <http://www.centerforneweconomics.org/publications/authors/witt/susan/local-currencies> accessed 16 July 2018. A mutual credit system is said to redress a deficit region drain on liquidity. See Jorim Schraven, *The Economics of Community Currencies*: *a Theoretical Perspective* (2001) <http://www.jorim.nl/economicscommunitycurrencies.pdf> accessed 16 July 2018;

as well as Jorim Schraven, 'The Economics of Local Exchange and Trading Systems: a Theoretical Perspective' (2000), 4 International Journal of Community Currency Research 5, <https://ijccr.files.wordpress.com/2012/05/ijccr-vol-4-2000-5-schraven.pdf> accessed 16 July 2018

[121] Johanna McBurnie, 'Investigating the Role of Money: The Case of Salt Spring Dollars' (BAH thesis, University of Victoria 2012) <https://www.uvic.ca/socialsciences/economics/assets/docs/honours/McBurnie.pdf> accessed on 16 July 2018

[122] Naqvi, 'Banknotes' (n 7) at 317, 320-21.

out at costs incurred by users, and went on to argue that "[b]y segregating off different regions by means of community currencies, users and enterprises are deliberately opting out of an efficient division of labour across regional borders."[123]

In assessing the relevance of community currency schemes to the Bank of England's monetary and financial stability objectives Naqvi and Southgate are more equivocal. Their observations can be summarized as follows:[124] They argue that since the aggregate size of the UK schemes relative to the spending in the economy is small, it does not have a significant impact on the price level and hence on monetary stability. At their present size, community currencies do not generate sufficient pressure on the price level as captured by the consumer prices index so as to dramatically boost economic activity. However, they opine, "even if the schemes were large enough to affect spending at the macroeconomic level," it would be within the power of the Bank to adjust its monetary policy. I suppose that to the extent that one-for-one backing for sterling exists for current community-currency schemes the issue involved here is not an increase in the amount of money per se but rather in an increased circulation.

As well, they mention the risk of counterfeit notes, expressing the fear that particularly true due to the typical physical similarity in appearance between a community currency voucher and a banknote, "a successful counterfeit attack on a community currency voucher scheme might generate a spillover effect that reduces confidence in other physical instruments, like [Bank of England's] banknotes." Strictly speaking, this fear does not apply to virtual currencies except that by analogy one could be concerned with the risk of hacking and counterfeit digital coins. They also raise the prospect of a 'run' on a private scheme adversely affecting financial stability if community currencies were to become a significant part of the payment system. Indeed, in the case of a cryptocurrency, the risk of a 'run' is replaced by the risk of massive exchange to national currencies leading to value depreciation.

Finally, they point out that community currencies do not enjoy 'legal tender' status. In a given case an issuer of a community currency may not be creditworthy and in any event, it is not creditworthy as the Bank of England. Morevover, it is typically an unregulated financial institution or entity. Accordingly, in principle, holders of community currencies do not enjoy a high degree of user protection without an assured one-for-one backing for sterling. In this context I should add, while 'commercial bank money' equally does not enjoy 'legal tender' status, not only that it is issued by regulated financial institutions, but it has the advantage of allowing to bypass the risk associated with payment in physical cash, in a context in which both the value of the unit of account and the convertibility to legal tender are automatically guaranteed.

---

[123] Deutsche Bundesbank Eurosystem, *The cost behind the moniker: local currencies in Germany* (Frankfurt, 26 March 2013) <https://www.bundesbank.de/Redaktion/EN/Topics/2013/2013_06_26_the_cost_behind_the_moniker_local_currencies_in_germany.html> accessed 16 July 2018

[124] Naqvi, 'Banknotes' (n 7) at 323 – 24.

Conclusion and Final Observations

To ensure confidence and safety, community currencies controlled by a private issuer would need to be fully backed. Use of national currency unit of account will enhance acceptance of all community currencies. To incentivize users, restricted access schemes could be bought or earned in a discounted value and be depreciative so as to encourage prompt use. Compared to scrip-based models, centralized digital schemes as well as permissioned cryptocurrency ones are likely to be more effective in preventing spillover to other regions or groups.

Indeed features such as a reserve (or otherwise confidence in the value of the currency) and use of the unit of account of the national currency are likely to enhance acceptance; at the same time, as discussed, it is plausible to argue that the law is flexible so as to accord monetary status to anything accepted as money. State otherwise, such features are helpful in establishing acceptance and yet acceptance on its own suffices even in the absence of some of all such conditions.

A remaining question is the need for regulation. Once financial stability is put at risk regulation ought to be unquestionable. However, protection of the public requires regulation well ahead of that point. Regulation ought to be not so much of the currencies but rather of the business activity in relation to them such as exchange, transfer and storage.[125] Particularly for digital currencies this is so regardless of whether they are money.

In the final analysis it should however be pointed out that from a legal perspective, community currencies do not appear to distinguish themselves as a separate category of private currencies. This has become more apparent with digitalization, a context in which there is not necessarily a pre-existing community; rather, it is the digitalization which links participants in a virtual currency scheme into a community. At the same time it is acceptance in the community which renders a candidate for private money, be it a voucher or digital coin, into 'money'. Both law and sociology then fully converge.

[125] A comprehensive such a statute for digital currencies is the US Uniform Regulation of the Virtual-Currency Business Act (URVCBA), drafted by the National Conference of Commissioners on Uniform State Law (NCCUSL) and approved and recommended by it for enactment in all the states in the United States at its Annual Conference Meeting in its 126th year in San Diego, California on July 14-20, 2017. So far it has been introduced in Connecticut, Hawaii, and Nebraska. It is available online with Prefatory Note and Comments (and more information) at: <http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/URVCBA_Final_2017oct9.pdf> accessed 16 July 2018.