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THE DEMOCRATIC DIGITAL DOLLAR: A DIGITAL SAVINGS & PAYMENTS PLATFORM FOR FULLY INCLUSIVE STATE, LOCAL, AND NATIONAL MONEY & BANKING SYSTEMS

Robert Hockett[†]

Executive Summary

Many national and subnational units of government see a need for more inclusive money, payment, and retail banking systems for the capture, storage, and transfer of spendable value among their constituents. Existing and still proliferating payments platforms, most provided by for-profit private sector entities, exclude too many people, and extract too much value in the form of needless transaction charges and other rents, to be up to the task of efficiently affording this essential commercial and financial utility to the full public on sensible terms. This Article sketches a smart-device-accessible platform—the ‘Digital Dollar Platform Plan’—which, thanks to new payment technologies, can easily be put in to place and administered by any unit or level of government with a view to supplying this critical commercial and financial infrastructure to all of its constituents.

I. Introduction

Many national and subnational units of government see a need for more inclusive money, payment, and retail banking systems for the capture, storage, and transfer of spendable value among their constituents. Existing and still proliferating payments platforms, most provided by for-profit private sector entities, exclude too many people and

[†] Edward Cornell Professor of Law and Finance, Cornell Law School; Visiting Professor of Finance, Georgetown McDonough School of Business; Senior Counsel, Westwood Capital, LLC; Co-Founding Director, Digital Fiat Currency Institute; Board Member, Public Banking Institute. The author has drafted legislation that would institute a version of the plan here discussed in the State of New York. This legislation has now been proposed by Assemblyman Ron Kim in the New York State Assembly and Senator Julia Salazar in the New York State Senate. *See* Empire State Inclusive Value Ledger Establishment & Administration Act, H.R. 8686, 2019 Assemb. Reg. Sess. 2019-2020. (N.Y. 2019), https://assembly.state.ny.us/leg/?default_fld=&bn=A08686&term=2019&Summary=Y&Actions=Y&Text=Y&Committee%26nbspVotes=Y&Floor%26nbspVotes=Y.

extract too much value in the form of needless transaction charges and other rents to be up to the task of efficiently affording this essential commercial and financial utility to the full public on sensible terms. This Article sketches a smart-device-accessible platform—the ‘Digital Dollar Platform Plan’—which, thanks to new payment technologies, can easily be put in to place and administered by any unit or level of government with a view to supplying this critical commercial and financial infrastructure to all of its constituents.

Because a money is simply what *counts* for purposes of accounting, accumulating, and transferring value within a given value-storage and -payments system,¹ supplying a universally accessible architecture of the kind here designed is equivalent to supplying a universal (1) currency, (2) trade and payments, and (3) retail banking platform to all who participate. Because new digital payments technologies make the construction and administration of such platforms a simple and straightforward proposition, moreover, it is now easy for any unit of government to supply a comprehensive commercial and financial infrastructure of this general form—in effect, a phone-accessible public savings and payments ledger—to literally all of its constituents.

All that a unit of government need do to afford this form of commercial and financial inclusion is supply its constituents with a publicly administered or overseen digital payments platform and associated system of digital ‘wallets’ or transaction accounts that can be credited and debited through the connecting link of one master account. The latter can be either the fisc of the governmental unit in question or a separate account maintained or sponsored by that unit in the form of a legal trust or account held with some other institution.

By making such wallets or accounts smartphone- or smart device-accessible, moreover, and by facilitating interoperability between these payment platforms and others at different levels of government, subnational units of government can supply their constituents with open access entrance ramps, so to speak, onto the nation’s broader commercial and financial thoroughfares. National governments can also provide such systems to all citizens and legal residents, including business firms, as most such governments already do for privileged banking and other financial institutions permitted to hold ‘reserve accounts’ with their central banks.

The fact that many of the world’s central banks and monetary authorities are now either already working or planning to upgrade their national payments systems, even as social media monopolies threaten to build their own payment platforms and associated currencies, renders the present an especially opportune—if not urgent—time for all units of government to develop and offer this indispensable public utility to their citizens.² This

¹ See Robert Hockett, *Rousseauvian Money*, 18-48 Cornell L. Stud. Res. Paper Series 1, 36–37 (2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3278408; see also Robert Hockett, *Money’s Constitutive Contexts 2* (2019) (unpublished manuscript) (on file with author).

² See, e.g., Robert C. Hockett, *Money’s Past is Fintech’s Future: Wildcat Crypto, the Digital Dollar, and Citizen Central Banking*, 2 STAN. J. BLOCKCHAIN L. & POL’Y 1, 9–11 (2019); Robert Hockett, *Facebook’s Proposed Crypto-Currency: More Pisces than Libra for Now*, FORBES MAGAZINE (Jun. 20, 2019),

Article accordingly designs a single such platform—the Digital Dollar Platform—that can be readily adapted to state, local, or national—even transnational³—use, and that ideally will be offered in some form by all units and levels of government to their constituents. It can also be offered by coalitions of subnational units of government, via the familiar mechanism of inter-unit compacts. All such possibilities are sketched in what follows.

II. The Digital Dollar Platform Plan in Broad Outline

Many national and subnational units of government worldwide, including in the U.S., see a need for more widely accessible payment platforms and associated currencies for the accumulation, storage, and transfer of value.⁴ Such platforms and their associated currencies are prerequisites to maximal commercial and financial inclusion and optimally efficient trade and payments alike. At subnational levels—which in the U.S. are state governments and municipal corporations or townships—this need is often couched as the need of a complementary currency or payment system, or as the need for some form of community banking.⁵ At the national level, in the U.S. at least, it is typically couched as the need to ‘tap untapped markets,’ ‘democratize finance,’ or ‘bank the unbanked.’⁶

A currency is ‘that which counts’ for purposes of accounting—that is, for measuring and transferring stored value—within a given payments architecture.⁷ It is a token that betokens quantifiable value as accumulated, stored, and transferred within such a system.⁸ It is accordingly that which accumulates and that which pays as productive participants in any market exchange economy earn, save, and spend purchasing power—that is, spendable wealth.⁹ To supply such a payment system to any community of any size is thus effectively to supply such a community both with a currency and, therefore, with a means to produce, earn, accumulate, store, measure, and transfer wealth.¹⁰ It is, in other words, to supply that community with a monetary medium, a payments platform, a commercial infrastructure, and a rudimentary banking and financial system all in one

<https://www.forbes.com/sites/rhockett/2019/06/20/facebooks-proposed-crypto-currency-more-pisces-than-libra-for-now/#1a957b4a2be2>.

³ See generally Robert Hockett, *Bretton Woods 1.0: A Constructive Retrieval for Sustainable Finance*, 16 N.Y.U. J. LEGIS. & PUB. POL’Y 1, 75 (2013),

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1805962.

⁴ See, e.g., Mike Orcutt, *At Least 15 Central Banks Are Serious About Getting into Digital Currency*, MIT TECHNOLOGY REVIEW, Dec. 14, 2018, <https://www.technologyreview.com/s/612573/at-least-15-central-banks-are-serious-about-getting-into-digital-currency/>.

⁵ See, e.g., BERNARD LIETAER, *RETHINKING MONEY* (2013).

⁶ See generally Robert Hockett, *Pre-Liberal Autonomy and Post-Liberal Finance*, 77 J. LAW & CONTEMP. PROB. 105 (2014); Robert Hockett, *Materializing Citizenship: Finance in a Producers’ Republic*, 63 EMORY L. J. 55 (2014).

⁷ See Hockett, *Money’s Constitutive Contexts*, *supra* note 1, at 2.

⁸ *Id.*

⁹ *Id.* See generally Hockett, *Pre-Liberal Autonomy*, *supra* note 6; Hockett, *Materializing Citizenship*, *supra* note 6.

¹⁰ *Id.* See generally Hockett, *Rousseauvian Money*, *supra* note 1; Robert C. Hockett, *The Capital Commons* (2018) (unpublished manuscript) (on file with author).

stroke.¹¹

New digital payment technologies that have developed over the past decade now make the construction of such payment platforms a simple and straightforward proposition.¹² All that is needed is a computer-based and accessible infrastructure of accounts or wallets that can be credited and debited through a pooled master account, the latter of which can take the form either of the public fisc of the governmental unit in question or of a legal trust settled and administered by that unit.¹³ Value accumulation and storage then can be done through these individual wallets or accounts, simply by enabling payment into and storage within such accounts.¹⁴ Value transfer—that is, payment—from any Payer to any Payee can for its part be affected through the simultaneous crediting and debiting of Payee and Payer accounts. Real time clearing and settlement, long a holy grail to commercial and financial market participants, is now readily available to all, provided that it be publicly supplied as the critical market infrastructure it is in a commercial society and exchange economy such as ours.¹⁵

Any such system, if made available to all constituents of the governmental unit that furnishes it, will amount to a universally inclusive commercial and financial architecture within the unit's jurisdiction.¹⁶ It will afford easy and frictionless means of producing, earning, accumulating, storing, and measuring wealth, along with means of real time transfer of such wealth with cash-reminiscent finality of payment in any transaction within the jurisdiction.¹⁷

A collateral benefit of any such system will be its enabling all users to side-step the present-day Babel of multiple privately owned for-profit payment services, all operating pursuant to their own often exploitative and incommensurable protocols.¹⁸ Under this chaotic system of private payment service providers, each in effect ruling its own feudal payments fiefdom in its own preferred fee-exacting and rent-extracting ways, a needless multitude of platforms (a) interface with one another in varying effective and friction-prone ways, (b) raise multiple barriers, complications, transaction-costs, delays, and associated risks in the payments process, and (c) afford a large and still-growing number of for-profit entities with multiple socially unnecessary and costly exploitation opportunities.¹⁹

¹¹ See generally Hockett, *Rousseauvian Money*, *supra* note 1; Hockett, *The Capital Commons*, *supra* note 10, at 54–70.

¹² See Hockett, *The Capital Commons*, *supra* note 10, at 54–70.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.* How such a system facilitates measurement, storage, and voluntary transfer of value is presumably obvious to all. How it facilitates value production is more fully laid out below. The short answer is that value—in the form of access and resources—is used in the production of value itself, while money and credit are the means of access to resources in any exchange economy such as ours. Insufficient money and credit accordingly mean insufficient access, which in turn means insufficient value-productive activity.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

Any unit of government, from local to state to national, can easily and inexpensively supply a uniform and universally accessible saving and spending infrastructure. All it need do is afford every constituent with a digitally accessible account or wallet that interfaces with its own fisc or some other universal account organized as a publicly administered entity or legal trust. It then can make payments (such as tax rebates, procurement expenditures, and entitlement benefits) and receive payments (such as taxes, fees, and fines) in real time through the medium of such accounts, simply by crediting or debiting them. Similarly, it can facilitate real time payments among participating constituents *inter se* simply by affording means of simultaneously crediting Payee and debiting Payer accounts in accordance with Payer instructions conveyed via chip card, strip card, or smart device app.

Further details of any such platform are functions of the position and circumstances of the governmental unit that provides it in the constitutional order of the nation of which that unit is part. In the U.S., these details will thus ride upon whether the governmental unit in question is a state, a municipality, or the federal government itself. The platform design elaborated here accordingly comes in four ‘flavors’—state, local, interstate compact, and national—each of which will now be sketched separately.

III. The State Digital Dollar Platform Plan

For the purposes of those who reside in the U.S., it is convenient to begin with the state rendition of the plan. There are two reasons. First, state action legally must precede local action for the latter to occur, since localities—that is to say, state-chartered municipal corporations—are incorporated by states in the U.S.’s federal union. Second, state action typically precedes federal action in the U.S., in this case for practical reasons sounding in ‘laboratory democracy’ rather than for legal or constitutional reasons.

A state payments platform and associated system of digital wallets or accounts is easily constructed and administered. Practically speaking, it is perhaps best to proceed through two stages.

Stage 1: In the first stage, the state provides a digitally accessible wallet or transaction account—we can call it a ‘Digital Dollar Account’—to all legal residents within its jurisdiction. Each such account will be linked to a pooled ‘Master Account’ that can be either the state fisc itself or a separate account established as a state enterprise or legal trust. The account might be called something like the ‘State Revenue Collection and Benefit Disbursement Fund,’ in keeping with the fact that residents of most U.S. states pay taxes, licensing fees, fines, and the like under multiple headings, and receive rebates and benefits under many types of state pension, social service, and other programs.²⁰ The account might

²⁰ New Yorkers, for example, pay taxes, fees and fines to, and receive payments and benefits from, scores of state agencies (SNAP, utilities payment assistance, pension benefits, etc.). *See, e.g.,* Office of the New York State Comptroller, *Agencies that Can Receive Electronic Invoices*, <https://www.osc.state.ny.us/vendors/state-agencies-list.htm> (last visited Feb. 6, 2020); *see generally* Office

also be given some more attractive name like the ‘Empire Fund’ in New York or the ‘Bear Flag Fund’ in California or the ‘Ad Astra Fund’ in Kansas.²¹

The state will then make remittances owed to its residents—for example, tax rebates, procurement payments, and entitled pension or other benefit payments—by crediting their individual accounts. It will correspondingly receive payments—for example, taxes, franchise fees, and fines—by debiting these same accounts. In theory, these credits and debits could be denominated in any measurement unit the state deemed convenient, a fact that will prove helpful below in connection with the local community rendition of the Plan (the ‘Community rendition’). Because all U.S. states transact in the national currency—the dollar—however, states that institute a platform of the kind here designed will effectively be paying and being paid digital dollars—a fact that will prove helpful in connection with ‘building the Plan out’ in the stages elaborated below.

This first stage of state implementation of the Plan, if carried out as just described, can be viewed as a simple digitization of contemporary state fiscal operations. This will not only render payments more reliably tractable than they are under present arrangements, but also will render the conduct of payment flows amenable to the use of new payment media such as smart phones and other devices. Indeed, to optimize the functionality of the new digitized arrangement, the state might even develop the app through which payment flows are effected, or contract out for design proposals.²² In time, as multiple states implement versions of the Plan, we might even hope to see—if not affirmatively encourage—interstate harmonization of Plans and associated apps.

Stage 2: The second stage of state implementation of the Plan will be to enable payment flows not only between the state and its Residents, but also among residents themselves. All who hold accounts for purposes of receiving payments from and making payments to the state will be enabled to transact with one another just as they transact with the State. For example, instead of directing that her account be debited as the State account is correspondingly credited, as in a tax or licensing fee remittance to the state fisc, a Payer will direct that her account be debited as some other, private sector Payee’s account is correspondingly credited—just as in any private sector commercial or financial transaction.

In principle, the transition from Stage 1 to Stage 2 of Plan implementation involves no fundamental change in technical requirements or associated challenges. It is simply a matter of adding an additional layer of payment wiring or ‘plumbing.’ The only new task implicated by the added connectivity is the tracking of simultaneous credits and debits of

of the New York State Comptroller, *State Agencies*, <https://www.osc.state.ny.us/agencies/> (last visited Feb. 6, 2020).

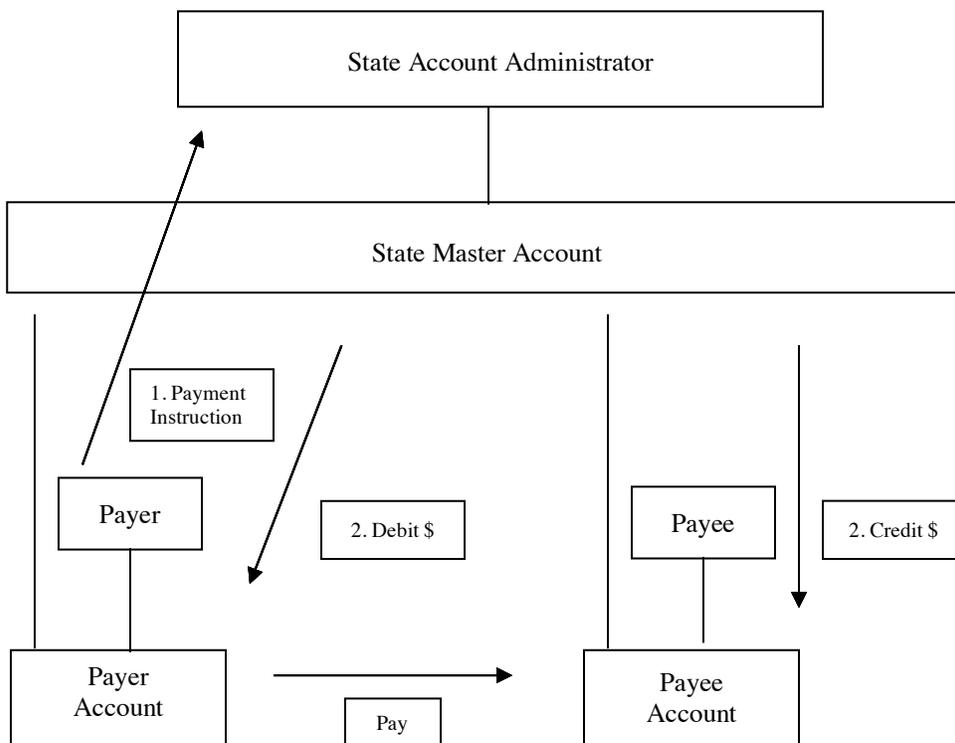
²¹ New York bills itself as ‘the Empire State,’ while California once was ‘the Bear Flag Republic.’ Kansas’s state motto is ‘Ad Astra Per Aspera.’ It is a surprisingly pleasant exercise to think up fund names for multiple states—a ‘Lone Star Fund’ for Texas, a ‘Quaker State Fund’ for Pennsylvania, a ‘Lincoln Fund’ for Illinois, etc. As a native New Orleanian, the author cannot but hope that Louisiana’s fund will be named the ‘Bontemps Fund.’

²² The author has developed such an application with several colleagues in the technology sector, which will be freely available.

Private-Private transaction accounts in addition to the credits and debits of Private-Public transaction accounts. That means more workload in an aggregative sense, but because digital payments are overwhelmingly automated, the practical workload effect is minor.

It is easy to visualize the Plan in operation at the state level of government. That is a consequence of the Plan's simplicity—a simplicity enabled by contemporary payment technologies that effectively render actual payment dynamics structurally isomorphic to double-entry book-keeping, which is in turn no more complex than the algebra from which it derives.²³ *Figure 1* exhibits the structure of payment flows under the Plan.

Figure 1: State-Administered Digital Dollar Plan Payments System



In the diagram, non-arrowsed lines represent institutional linkages and arrowsed lines represent payment instructions and associated flows. A payment occurs when the Payer instructs the Master Account Administrator, via a chip card, strip card, or smart device app (Step 1), to debit her own account in the Master Account and correspondingly credit the Payee's account in the Master Account (Step 2). At Stage 1 of Plan implementation, counterparties in any such transaction will comprise one public and one private sector party. At Stage 2 of Plan implementation, all account holders in the system, public or private, will be able to make and receive payments to and from one another in the same

²³ See Hockett, *Money's Constitutive Contexts*, *supra* note 1, at 2; see Hockett, *Rousseauvian Money*, *supra* note 1, at 36–37.

manner.

It will be necessary at Stage 1, and perhaps desirable at Stage 2, to provide for commercial bank interoperability with the Plan Master Account, in order for state residents to spend out of their Digital Dollar Accounts into the broader economy when they are in surplus. This can be done either by (a) requiring that commercial banks provide connectivity between individual Digital Dollar Accounts and bank transaction accounts, (b) holding Master Account funds themselves in the form of Plan commercial bank transaction accounts, (c) establishing a state bank, roughly along the lines of the widely celebrated Bank of North Dakota model,²⁴ or (d) any combination of these three modalities.

IV. The Community (‘Complementary’) Digital Dollar Platform Plan

The Community rendition of the Digital Dollar Plan can be thought of as a structurally identical or near-identical, but jurisdictionally and practically more limited, case of the state rendition. It is structurally identical or near-identical in that the structure in *Figure 1* above can be retained with no more than a few labeling changes or other additions to represent it, which *Figure 2* below reflects. It is jurisdictionally and practically more limited in that localities are creatures of state law in the American constitutional order because they are typically state-chartered as municipal corporations and endowed only with such functions and authority as states affirmatively confer upon them. In some cases—those in states with ‘home rule’ statutes—the conferral is plenary, while in others it is much more limited. In all cases, however, the breadth of conferral remains within states’ jurisdictional discretion.

Though the decision whether to permit local renditions of the Plan rests ultimately with states, there is good reason for states to permit, encourage, and facilitate their adoption and spread. The principal reason is, non-accidentally, identical to that for ‘community,’ or ‘complementary,’ currencies as advocated by many proponents of greater commercial and financial inclusion—non-accidentally because, as noted above, a currency simply is that which counts for purposes of accounting and paying in any payments system.

As mentioned earlier, a currency is, among other things, a means of storing, measuring, and transferring value. One entailment of this truism is that if a given quantum of potential value exceeds a given currency stock’s capacity fully to express and convey that value, potential value can fail to be fully realized. In such a case, potential wealth will accordingly be left on the proverbial table. People will not produce as much as they potentially can in this circumstance, for the means of securing command over productive resources (‘purchasing power’), and of being remunerated for productive services (‘earning power’), will be lacking in the precisely the same measure as the money supply is lacking.²⁵

²⁴ See generally Bank of North Dakota, <https://bnd.nd.gov/> (last visited Jan. 7, 2020); see also Stacy Mitchell, *Public Banks: Bank of North Dakota*, INSTITUTE FOR LOCAL SELF RELIANCE, <https://ilsr.org/rule/bank-of-north-dakota-2> (last visited Feb. 6, 2020).

²⁵ See Hockett, *The Capital Commons*, *supra* note 12, at 16; see generally Hockett, *Rousseauvian Money*, *supra* note 1.

This inseverable causal correlation between potential value creation and monetary value expression is precisely why the U.S.’s first Treasury Secretary, Alexander Hamilton, made establishment of a national bank and issuance of a new monetary medium his first priority upon taking office with a view to setting the new nation on a path to productive prosperity.²⁶ It is also why all modern nations maintain central banks or monetary authorities charged with issuing and administering what now are referred to in monetary parlance as ‘elastic currencies.’²⁷

Supplies of elastic currencies can be extended when there remains productive potential to be realized—that is, when there is capacity-underutilization, or ‘slack’—and can be modulated or contracted when they exceed what is necessary for productive use as distinguished from inflationary expenditure—that is, expenditure upon no longer expanding supplies of goods and services sold in an economy already operating at full capacity. Modern central banking is simply the modulation of extensible and contractible elastic currency supplies, done to maintain balance between money supplies and productive potential.²⁸

States and localities unfortunately do not have authority to institute central banks or monetary authorities able to issue and manage elastic currencies. When there are frictions or barriers between varying isolated communities and the broader national economy over which the nation’s central bank operates, productive potential can in consequence lie fallow, with value left unproduced and untapped.

If, for example, the residents and businesses of Bedford Falls have few dollars to work with owing to imperfect connectivity to the broader national economy, they will have little with which to encourage or compensate potentially value-adding activity taken by many among them—much as Secretary Hamilton’s new U.S. had very little global or other extra-national currency to work with during the early years of the Republic.²⁹ Ms. Hatch, for example, might be willing and able to work managing the local public library, but the town and its residents are too cash-poor to pay her adequately. Mr. Martini for his part might be willing to repair local roadways and other civic infrastructure, yet be similarly unpayable in dollars. And Mr. Bailey might be willing and ready to provide forms of care to the town’s ailing and elderly, but he too might be unpayable in dollars owing to the local shortage of national currency.³⁰

²⁶ See Hockett, *The Capital Commons*, *supra* note 10, at 28; see generally Hockett, *Rousseauvian Money*, *supra* note 1; Hockett, *Pre-Liberal Autonomy*, *supra* note 6; Hockett, *Materializing Citizenship*, *supra* note 6; Robert C. Hockett, *A Jeffersonian Republic by Hamiltonian Means: Values, Constraints, and Finance in the Design of a Comprehensive and Contemporary American ‘Ownership Society’*, 79 S. CAL. L. REV. 45 (2005).

²⁷ Hockett, *The Capital Commons*, *supra* note 10, at 16.

²⁸ *Id.* at 30; see also Robert C. Hockett, *A Fixer-Upper for Finance*, 97 WASH. U.L. REV. 1213, 1285 (2010).

²⁹ See Hockett, *The Capital Commons*, *supra* note 10, at 28; see generally Hockett, *Rousseauvian Money*, *supra* note 1; Hockett, *Pre-Liberal Autonomy*, *supra* note 6; Hockett, *Materializing Citizenship*, *supra* note 6; Hockett, *A Jeffersonian Republic*, *supra* note 29.

³⁰ The attentive reader will note that the town and people referenced in this and the next paragraph all are taken from Frank Capra’s 1946 film, *It’s a Wonderful Life*.

Ms. Hatch's, Mr. Martini's, and Mr. Bailey's forgone activities under this scenario could, if not forgone but in fact multiplied across many others in the community, vastly improve the material wealth and productive potential of Bedford Falls over time. They could make Bedford Falls much more productive and wealthy in aggregate, to the point that it became far more integrated into the national economy and thereby grew wealthier still. But a community that is cash-poor in the sole form of value-capture, retention, and transfer available will have to forgo all this value. There are too few dollars, and there is no supplement to those rare dollars, to enable full value-expression, value-production, and dissemination in Bedford Falls now.

The idea behind complementary currencies is simply to afford additional—'complementary'—means to the dominant currency of expressing, capturing, and trading the value forgone in a cash-poor locality.³¹ The currency complemented is simply the dominant currency in which the community is cash-poor.³² We can think of such supplemental currencies as 'value gap fillers,' trickling into currently inaccessible dry crevices that, owing to imperfect integration with the national economy, there is presently not enough regular currency to reach.³³ In effect, the complementary currencies in such cases nourish currently undernourished 'green shoots' or 'value sprouts.'³⁴ Or, to appeal to another metaphor, they build 'capillary systems' (value-flow channels) in bodily extremities that do not presently receive sufficient blood-flow. If a municipal authority can supply such a currency, it can fuel more productive activity of the kind that will ultimately not only improve life in the community, but also draw in more of the *complemented* currency from outside of the community as well.³⁵

The institutional challenge posed by the need of a complementary currency is that municipalities lack legal authority to issue any currency that might too closely resemble or otherwise appear to compete with the national currency. But it is easy with ordinary levying or assessing authority—for example, license fee-collecting, taxing, and fining—and new payments technologies, on the other hand, for a municipality to issue a rough *functional equivalent* of a traditional currency, usable within its territorial jurisdiction, that truly does *complement* and *supplement* rather than *compete* with the national currency. All the locality need do is relinquish or transfer rights to the payments it is owed in a locally spendable form, while providing a local payments platform on which that local spending can then be done.

The relinquishments can be thought of as—indeed in the first instance they will likely primarily *be*—assessment credits, just as many now-familiar sovereign-issued currencies appear originally to have been or betokened.³⁶ Various forms of locally value-adding activity then can be remunerated in these credits, which at Stage 1 of

³¹ See, e.g., LIETAER, *supra* note 5.

³² *Id.*

³³ See generally Hockett, *Rousseauvian Money*, *supra* note 1; Hockett, *The Capital Commons*, *supra* note 10.

³⁴ *Id.*

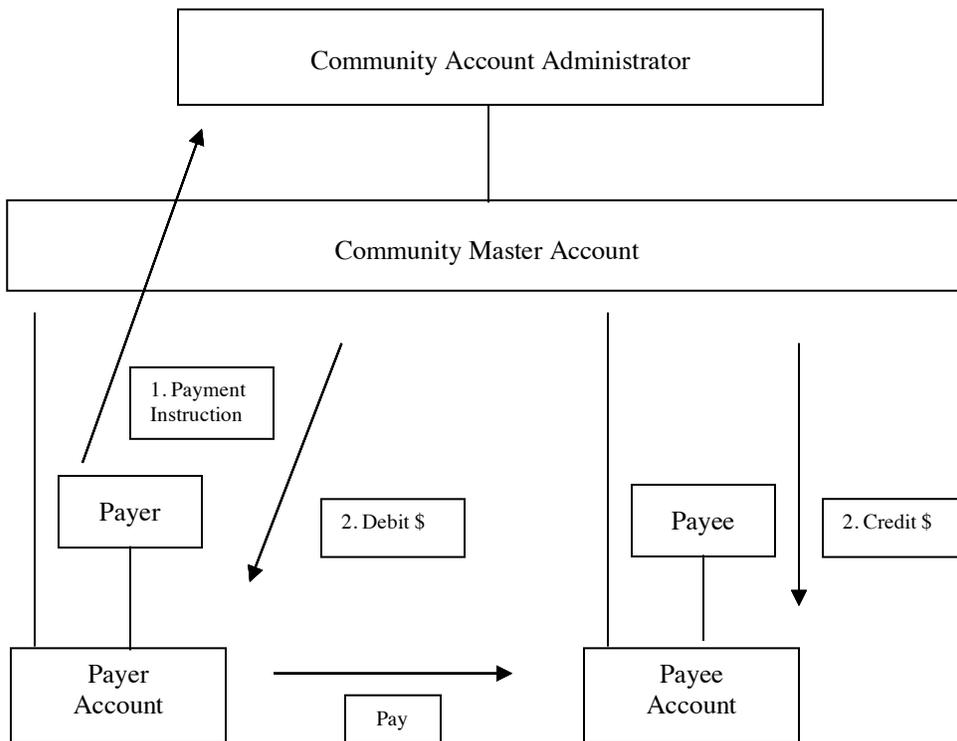
³⁵ *Id.*

³⁶ See, e.g., PAUL EINZIG, *PRIMITIVE MONEY* (1966); see generally Hockett, *Rousseauvian Money*, *supra* note 1.

implementation can be locally permitted to be conveyed to the municipal authority in lieu of national currency in fulfillment of the payment obligations that it levies. Then at Stage 2 the locality can facilitate transfers among constituents themselves of these same instruments, such that a local resident might pay a local retailer, for example, in assessment credits. These credits can, in theory, be measured in any unit the local authority that establishes the payment platform sees fit to establish. But as in the state case above, so too here it makes sense to denominate in the national currency to facilitate both (a) ready interoperability with that currency, especially as it comes to be digitized on a national payments platform as envisaged below, and (b) associated fuller integration with the national economy.

Stages 1 and 2 as described at the local level replicate counterpart stages in implementation of the state version of the Plan sketched above. That is no accident. Through the simple device of a master account and a system of (now local) Digital Dollar Accounts as sketched above, the locality can first transact with its own constituents in a manner similar to that in which states transact with constituents under the State Digital Dollar Plan (Stage 1), then enable transactions among constituents *inter se*, also as with transactions under the State Digital Dollar Plan (Stage 2). All that will differ in most cases will be the size of the plan in both dollar value and participant population terms, though of course large city plans will be larger than small state plans. Pictorially, then, a local Digital Dollar Plan will look like *Figure 2*.

Figure 2: Community-Administered Digital Dollar Plan Payments System



V. State and Local Plan ‘Compacts’

The smaller size of many community plans as just schematized might recommend use of a larger financial institution for purposes of administering the Master Account. This could be done, for example, by making use of a commercial bank trust department or other private sector fiduciary, with multiple municipalities banding together to bargain for optimal terms. Better still would be for municipal plans to participate in state plans, ‘plugging in’ to State Master Accounts be these directly state-managed or state-delegated to commercial or public banks patterned after the Bank of North Dakota model.³⁷

By the same token—pun ratified if not initially intended—we can imagine states forming multi-state regional compacts as well with a view to facilitating broader participation in a gradually growing interstate public payments platform and associated deepening economic integration. In payments parlance, smaller ‘closed loop’ payment systems would steadily integrate into larger such systems, gradually replacing the nation’s existing polyglot ‘open loop’ system—if ‘system’ is even the right word for the present welter of multiple rent-extractive arrangements.³⁸

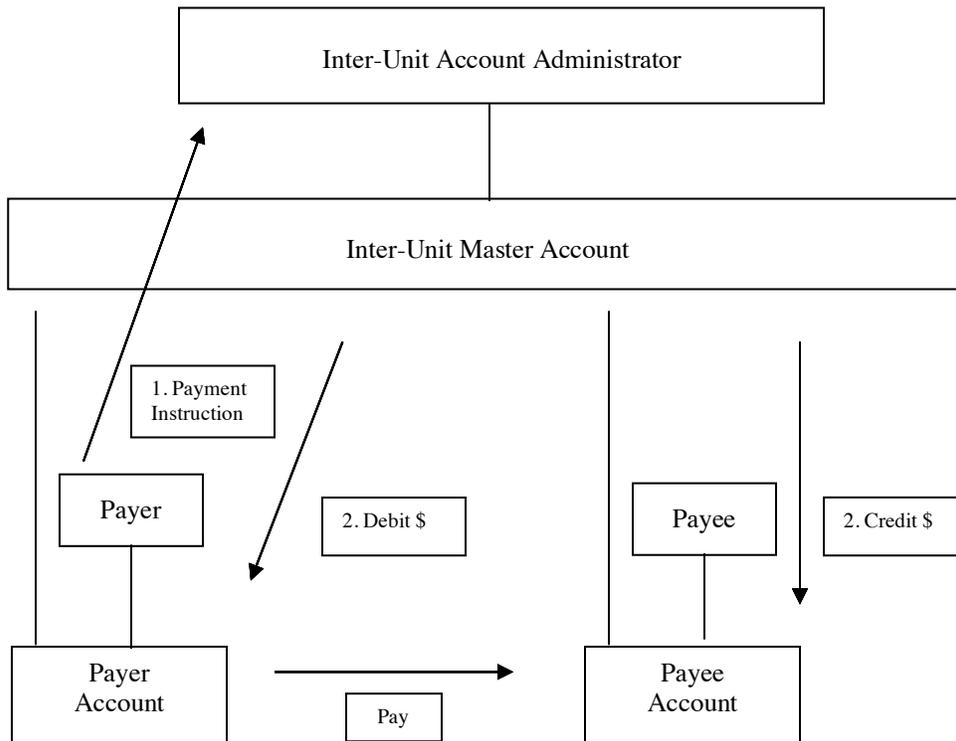
‘Compacting’ of this sort will require no separate Stage 1 of its own. That stage will already have been passed through by the participating units of government that have established payment platforms for their constituents. All that will remain to be done is to join separate local or state master accounts into one intercommunity or interstate master account, then install the ‘wiring’ needed to enable mutual crediting and debiting by all legal persons whose state or local governments join to form the relevant compact and associated payments platform. Thereupon state, local, or both kinds of governmental unit will continue to remit and receive payments vis-à-vis one another and vis-à-vis constituents through Digital Dollar Accounts of their own in the Master Account, while their constituents will also be able to transact across state or local boundaries *inter se*.

These observations invite yet another diagram—*Figure 3*, the structural identity with *Figures 1* and *2* of which is again not accidental. All that changes is the word ‘State’ or ‘Community,’ along with the prospect that ‘Payer’ and ‘Payee’ need no longer be residents or sub-governmental units of the same state or locality.

³⁷ Bank of North Dakota, *supra* note 27.

³⁸ Broadly speaking, an ‘open loop’ payment system is one in which intermediaries—typically but not always financial institutions—stand between transacting parties and whatever party manages the relevant payments platform or infrastructure. In a ‘closed loop’—alternatively, ‘peer-to-peer,’ or ‘P2P’—system, by contrast, only a single payment platform and system administrator stand between payers and payees. See generally Hockett, *Money’s Constitutive Contexts*, *supra* note 1; *Open Loop Card*, INVESTOPEDIA (last visited Jul. 16, 2019), <https://www.investopedia.com/terms/o/open-loop-card.asp>; *Closed Loop Card*, INVESTOPEDIA (Apr. 11, 2019), <https://www.investopedia.com/closed-loop-card-definition-4683996>.

Figure 3: Multiunit-Administered Digital Dollar Plan Payments System



VI. The National Digital Dollar Platform Plan

The intergovernmental ‘compacting’ just envisaged suggests the prospect of state and local payments platforms and associated digital currencies being ‘built out’ to embrace an ever-widening circle of citizens, businesses, and other residents of the U.S., all of whom will be progressively liberated both from the depredations of rent-extracting private sector ‘check cashing’ and ‘payment service’ firms and from the anti-productive economic stagnation that imperfectly available non-digital national currency still permits notwithstanding the elasticity managed by the Federal Reserve (the ‘Fed’). Much as digital value-storage and payment media like Alipay and M-Pesa have enabled far greater value-expression and associated value-generation in historically ‘underbanked’ nations like China and Ethiopia, so will Democratic Digital Dollars enable the same in the U.S. The only difference will be that here this medium of value-storage and -transfer will be publicly afforded as the essential public infrastructure that it is, just like its predecessor payment technologies of U.S. Mint-stamped coins, Fed-issued Dollar Bills, and Treasury-issued T-Bonds, T-Notes, and T-Bills.³⁹

³⁹ See generally Hockett, *Rousseauvian Money*, *supra* note 1; Hockett, *Money’s Constitutive Contexts*, *supra* note 1; Hockett, *Money’s Past*, *supra* note 2; Hockett, *The Capital Commons*, *supra* note 10; see also ROBERT C. HOCKETT, FINANCING THE GREEN NEW DEAL: A PLAN OF ACTION AND RENEWAL (forthcoming 2020) (on file with author).

This steady expansion is facilitated—indeed, it is all but guaranteed—by the structural simplicity of the Digital Dollar Plan, which replicates that of a simple ledger or account book maintained among friends, family members, or multiple depositors holding accounts at the same bank. As straightforward as book-keeping, account-keeping, and the algebra from which accounting derives, the Digital Dollar Platform bids fair to proliferate widely among units of political organization on the strength of its own ease of administration and rent- and stagnation-ending fecundity.⁴⁰ The likelihood of such intergovernmental payments system conglomeration suggests that ultimately our ‘highest’ level of government itself—our federal government, with its (that is, with *our*) plenary jurisdiction over all matters monetary and commercial within our national union—will do well to build and administer a national Plan that includes all state and local Plans.

It is straightforward, in light of the foregoing discussion, to envisage what at least the simplest rendition of such a plan would look like. And it requires only a little more institutional knowledge and imagination to envisage the least simple rendition. The former rendition would be provided and administered by the U.S. Treasury (the ‘Treasury rendition’). The other rendition would be provided and administered by the Fed (the ‘Fed rendition’). It will be helpful to sketch them separately in turn.

A. The Treasury Rendition

The Treasury rendition of the Digital Dollar Plan would, yet again, be structurally identical to the state and local renditions schematized above. All that would differ, also again, would be the scale and scope of the Plan as measured by (a) the number of participating legal persons, and (b) the number of kinds of public-private remittance that the new payments platform would facilitate.

With respect to (a), all persons within U.S. jurisdiction who have occasion to transact with the federal fisc—citizens, residents, businesses—would now have Digital Dollar Accounts of the kind sketched above, through which they would pay and be paid by other legal persons and governmental units with Accounts on the platform. In effect, the ‘Inter-Unit’ Master Account and Account Administrator of *Figure 3* would simply become a Treasury Master Account and the Treasury Department, respectively.

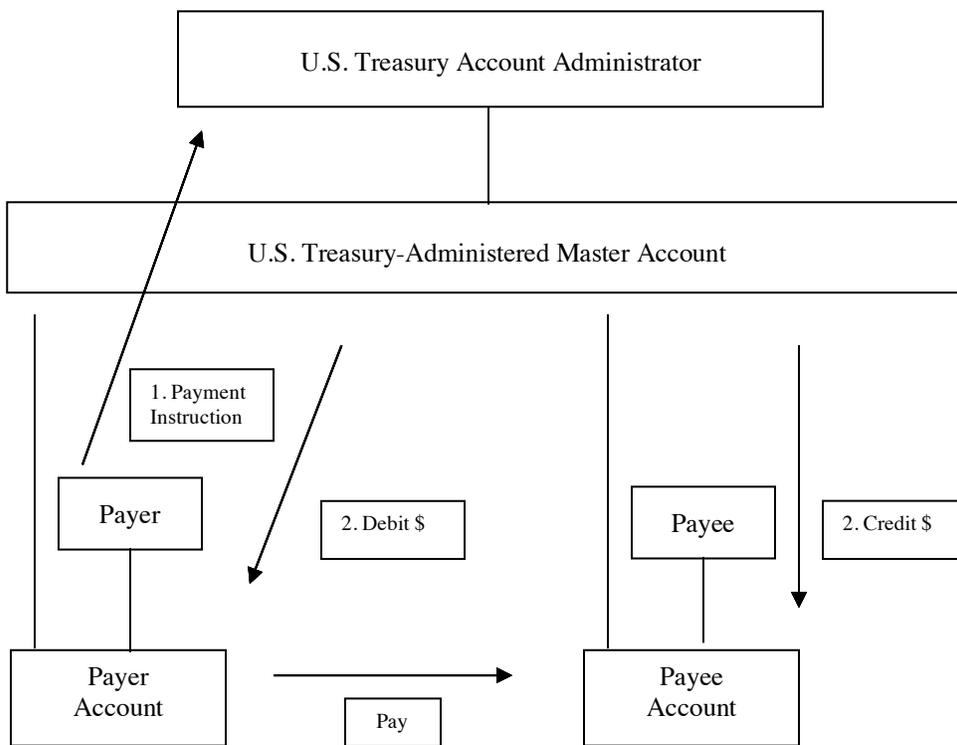
With respect to (b), the number of kinds of public-private remittance facilitated now would include all forms to which federal instrumentalities are party in addition to those to which state and local governmental units are party. Hence federal benefits and credits like Social Security, Federal Farm Credit loans, Small Business Administration loans and the like; procurement payments such as by the Departments of Transportation, Defense, or the like; and taxes or tax refunds and credits like the earned income tax credit would now all flow through the national Digital Dollar Plan pipeline.

The result would be a complete and fully integrated federal, state, and local

⁴⁰ It might bear noting here that since his Empire State Inclusive Value Ledger plan for New York went live late last year, the author has received numerous inquiries from other states and localities, as well as some federal agencies, about the prospect of developing or assisting with counterpart plans of their own.

payment platform and associated Democratic Digital Dollar, with localities able to administer dollar-denominated community currency systems, states able to join and to integrate localities in that project of intrastate payment system completion, and the U.S. Treasury providing the platform through which payments flow among household, business firm, municipal, state, and federal treasuries. As with the state and local renditions sketched above, so here implementation would proceed in two stages, beginning with the establishment of individual accounts enabling remittances between the U.S. Treasury and all holders (Stage 1), and proceeding to enabling payment flows among all account holders *inter se* (Stage 2). Pictorially, things would accordingly look as depicted in *Figure 4*.

Figure 4: U.S. Treasury-Administered Digital Dollar Plan Payments System



B. The Fed Rendition

In theory, the U.S. Treasury could borrow from account holders willing to credit the U.S. Treasury through their Digital Dollar Accounts, even paying out a coupon on such credits in a manner rendering them functionally equivalent to Treasury Notes, Bills, and Bonds. This would carry the U.S. Treasury well into the realm of central bank monetary operations, however, the implications of which exceed the scope of interest of the present

Article.⁴¹ The reader is accordingly asked simply to bear in mind that the functionalities of the Fed rendition of the Digital Dollar Plan about to be sketched all could in theory be discharged by a single authority performing all of the functions now separately distributed over our fiscal and monetary authorities.

If one day the U.S. should decide that central bank independence has been oversold and should be diminished or parted with, some such consolidation of funding, money-modulating, and liability-issuing authority might well be effected as it was in other eras of our nation's financial history.⁴² For the present, however, the Plan-sketching proceeds on the assumption that the nation retains separate fiscal and monetary authorities—that is, the Treasury and the Fed.

A Fed rendition of the Digital Dollar Plan could either replicate the Treasury rendition and administer it as a separate functionality in parallel with the Fed's other functionalities, or could integrate it into a more ambitious plan that employs the Plan not only as a national payments platform, associated Democratic Digital Dollar, and 'public option' in respect of traditional retail banking—that is, value storage and transfer as outlined above—but also as a structure for a far more effective channel of monetary policy and national investment than we have now.

The present channel is subject to various leakages owing to its reliance upon profit-driven, rent-seeking, private sector financial institutions as 'middlemen' along the transmission belt.⁴³ A payment platform enabling digital storage and transfer of value as the Digital Dollar Plan will show such institutions to be what they have been all along—superfluous value-extractive entities that do little more than obstruct and leech value from production-enabling transfers of purchasing power among productive units of the real economy.⁴⁴

In the case of monetary policy, which central banks and monetary authorities conduct with a view to maintaining 'balance' between money aggregates and money-requiring productive potential as described in connection with the Community rendition of the Digital Dollar Plan above, the Fed transacts with publicly favored 'dealer banks' and other privileged financial institutions to effect policy. The Fed buys or sells U.S. Treasury securities in such transactions to grow or shrink monetary aggregates, changes interbank

⁴¹ The author has several other projects underway that deal with this broader institutional question, which of course implicates questions concerning (a) the relations between fiscal and monetary policy on the one hand, the Treasury and the Fed on the other; (b) the similarities and differences among Treasury Securities, Federal Reserve Notes, and U.S. Mint-minted coinage; and (c) whether it still makes sense to divide all of these things. But these questions are of course well beyond the purview of the present Article.

⁴² See generally Hockett, *The Capital Commons*, *supra* note 10, at 13–27, 30–33, 57–82. See also Hockett, *Rousseauvian Money*, *supra* note 1; Hockett, *Money's Constitutive Contexts*, *supra* note 1; Hockett, *Money's Past*, *supra* note 2; Hockett, *Facebook's Proposed Crypto-Currency*, *supra* note 2; Hockett, *Pre-Liberal Autonomy*, *supra* note 6; Hockett, *Materializing Citizenship*, *supra* note 6.

⁴³ See generally Hockett, *The Capital Commons*, *supra* note 10; Hockett, *Rousseauvian Money*, *supra* note 1.

⁴⁴ *Id.*

lending charges to affect money rental rates and hence credit-money aggregates, or adjusts capital-leverage requirements to alter the quantum of credit that financial institutions can emit in a monetized form.⁴⁵

In all such cases, the hope is that Fed monetary easing will translate into greater bank lending to productive and other needful units throughout the national economy, and that counterpart monetary tightening will similarly contract credit-money aggregates and thereby slow inflationary spending activity.⁴⁶ The problem is that the hope always goes less than fully fulfilled, sometimes even to complete unfulfillment. The reason is not hard to find once one notes the pervasiveness of recursive collective action problems in any decentralized exchange economy and associated financial system like that of the U.S.⁴⁷

During a bust, when prices fall, it is irrational for individuals to borrow and spend even when the slump could be reversed if all individuals were to borrow and spend.⁴⁸ Such individuals lack the means of collective agency required to ensure that all individuals *do* engage in the requisite spending.⁴⁹ During a boom, when prices rise, it is likewise irrational for individuals *not* to borrow and spend, even when all individuals doing so inflates the bubbles which burst and become busts.⁵⁰ Private sector lending institutions are as caught up in this individually rational, yet collectively irrational, logic as are their prospective borrowers.⁵¹ A money-modulatory system that depends on the independently made decisions of such institutions will accordingly lack the means of collective agency required to conduct monetary policy efficiently.⁵²

A similar individually rational, yet collectively irrational, logic afflicts national investment in productive industry and infrastructure.⁵³ Many productive projects whose value-adds inure to the benefit large populations over lengthy durations do not inure sufficiently to the benefit of individuals over short durations to induce them to engage or invest in the productive activity in question.⁵⁴ Hence it is individually rational for disaggregated and uncoordinated persons simply to leave long-term value ‘on the table,’ as collectively irrational as that is.⁵⁵ Once again, what is true of individuals here is true of the disaggregated profit-seeking, private sector institutions that lend to them.⁵⁶ This is not to mention the rent-extractions and associated deadweight losses that these institutions are constantly imposing even when productive investment is underway.⁵⁷

⁴⁵ See Hockett, *The Capital Commons*, *supra* note 10, at 37–48.

⁴⁶ *Id.*

⁴⁷ *Id.* See also Robert Hockett, *Recursive Collective Action Problems: The Structure of Procyclicality in Financial and Money Markets, Macroeconomies, and Formally Similar Contexts*, 3 J. FIN. PERSP. 1 (2015).

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ See Hockett, *The Capital Commons*, *supra* note 10, at 33–38; see generally Hockett, *Recursive Collective Action Problems*, *supra* note 52.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

These two collective action impediments to efficient money-fueled productive activity would be readily remedied by cutting disaggregated private sector middleman institutions fully out of the monetary policy effectuation process and partly out of the productive investment process. The Fed rendition of the Digital Dollar Plan affords ready means of doing just that—means of enabling the Fed fully to perform, without being held hostage by disaggregated middleman institutions, its essential role as our polity’s authorized collective agent in all monetary matters. This is readily demonstrated in respect to both monetary and investment policy.

The monetary policy case is the easiest to see in light of the foregoing schematization of Digital Dollar Accounts and associated Digital Dollars. All that the Fed need do is (a) pay interest on Digital Dollar Accounts, (b) raise or lower those rates to slow down or speed up spending activity by account holders, and (c) in extreme cases, either impose negative interest rates upon, or conduct direct digital ‘helicopter drops’ into, these same accounts. And that would be that—direct, leak-proof monetary policy and associated effectuality in which both expansionary and contractionary policy are concerned.⁵⁸

The investment policy case is slightly more complicated than the monetary policy case, if only because the necessary architecture in this case has not already been fully laid out as it is for the monetary policy case just described.⁵⁹ It is nevertheless easy enough to provide quickly what is needed and then diagram the result. The key point to remember here is that the Fed, like any financial institution, maintains a large and complex balance sheet comprising many classes of assets and offsetting liabilities.⁶⁰

Among the Fed’s liabilities are the Reserve Accounts that it maintains for private sector banking institutions, which operate much as do individuals’ deposit accounts maintained at these same banks.⁶¹ Among the Fed’s assets, in turn, are the trillions of dollars’ worth of treasury securities, mortgages, other federal agency securities, and International Monetary Fund Special Drawing Rights.⁶² Private sector bank balance sheets look much like the Fed’s balance sheet, save that the assets and liabilities include much more in the way of for-profit private investments and individual demand deposits, respectively.⁶³

A Fed rendition of the Digital Dollar Plan would simply alter the composition of the Fed’s own balance sheet along with those of private sector banks. First, the Digital Dollar Plan ‘Master Account’ would simply be a large portion of the liability side of the Fed’s balance sheet.⁶⁴ Insofar as individual Digital Dollar Accounts subsumed within that

⁵⁸ See generally Hockett, *Rousseauvian Money*, *supra* note 1; Hockett, *Money’s Constitutive Contexts*, *supra* note 1; Hockett, *The Capital Commons*, *supra* note 10; Hockett, *Financing the Green New Deal*, *supra* note 43.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.*

Master Account were employed as transaction accounts by their holders as envisaged above, there would be a corresponding reduction in the size of private sector bank balance sheets—their deposit liabilities would simply migrate in substantial measure over to the Fed.⁶⁵

Second, insofar as we wanted private sector banks to continue to gatekeep in connection with at least some business and other forms of productive lending, we would permit them to do so either by extending such loans and then selling them on to the Fed (along with other federal entities, such as government-sponsored entities, to which they sell such loans now), by borrowing from the Fed through its Discount Window and lending the proceeds, or both.⁶⁶ In all such cases, the effect would be simply to substitute liabilities owed to the Fed for liabilities owed to individual depositors on bank balance sheets, and add these bank liabilities to the asset side of the Fed's balance sheet, offsetting the new liabilities that it owes via individual Digital Dollar Accounts.⁶⁷

Requiring private sector banks to fund their investments through Fed Discount Window lending instead of privately maintained deposits would have as salutary an effect on national investment policy as the Fed's maintaining a system of Digital Dollar Accounts for all legal persons would have on national monetary policy.⁶⁸ For the Fed could now condition its lending expressly upon private sector banks' lending for manifestly productive purposes in primary markets rather than speculative activity in secondary and tertiary markets.⁶⁹ In effect, we would have both (a) a renewed—and far more effective—Glass-Steagall separation of depository from speculative financial market activity, and (b) an affirmative linkage of that depository activity to productive investment.⁷⁰

Diagrammatically, we would move from a banking system such as that depicted in *Figure 5* to a banking system such as that depicted in *Figure 6* with respect to credit-money flows and associated assets and liabilities. Adding the payment platform of the previous diagrams to *Figure 6* yields a complete picture in the form of *Figure 7*, in connection with which one should remember that all entities represented above the Master Account box in the diagram are among the Account Holders, hence Payers and Payees, represented below that box in the diagram.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

Figure 5: Current Fed/Bank/Depositor/Issuer Arrangements & Financial Flows

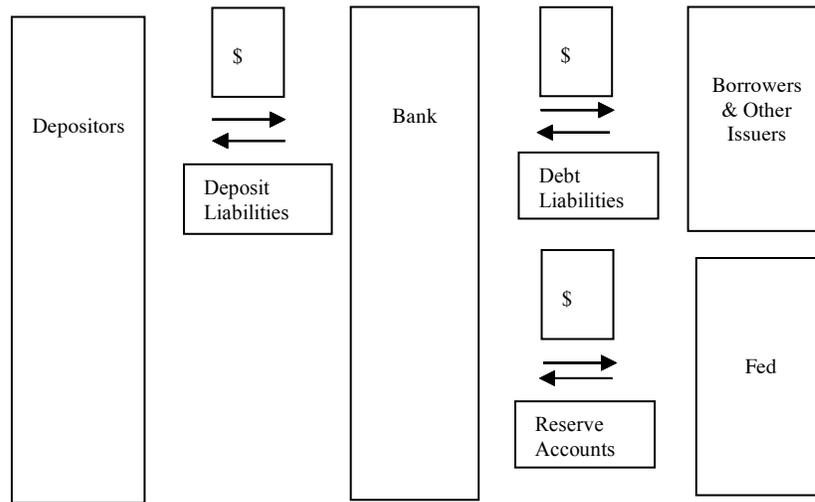


Figure 6: Reformed Fed/Bank/Depositor/Issuer Arrangements & Financial Flows

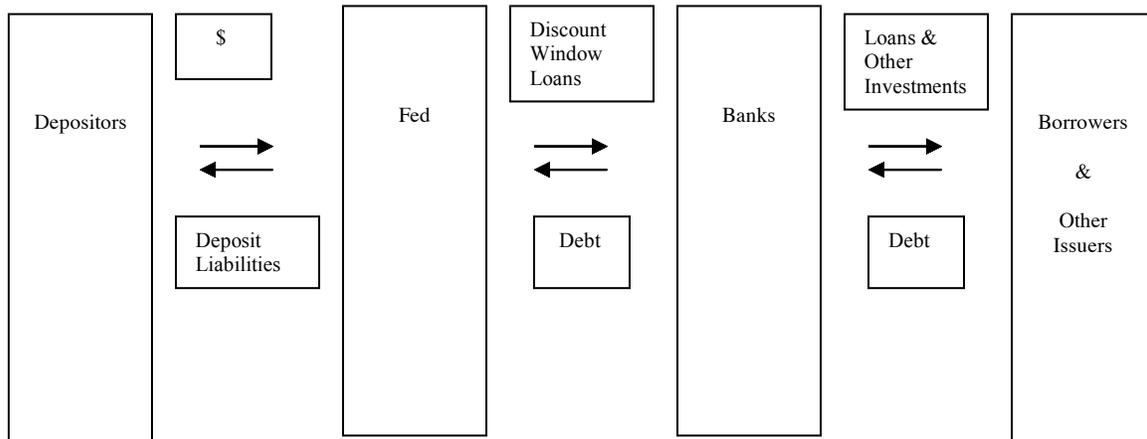
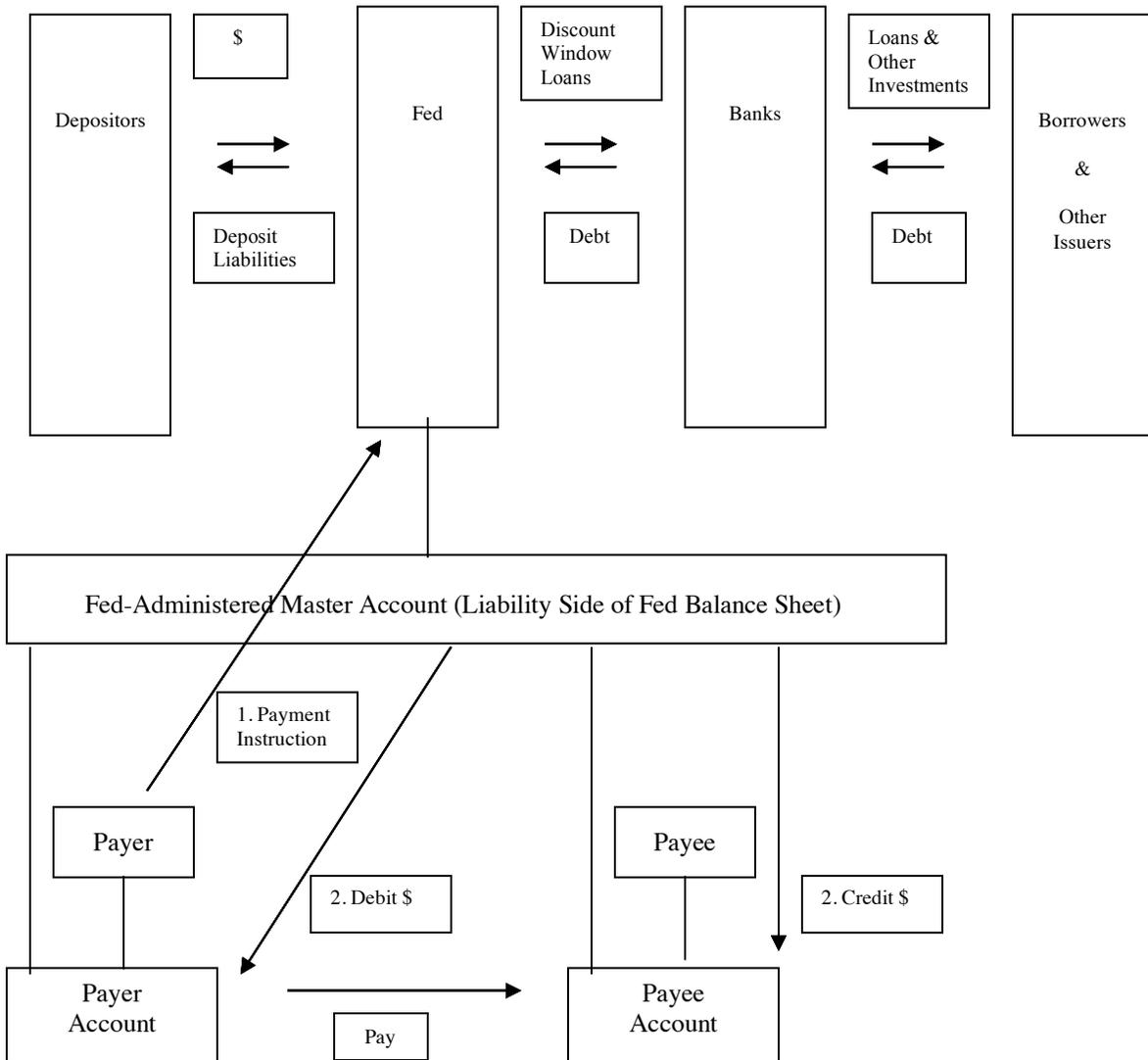


Figure 7: Reformed Fed/Bank/Depositor/Issuer Arrangements & Financial Flows, with Fed-Administered Payments Platform



VII. Conclusion

As might by now be obvious, everything proposed in this Article is so structurally simple and practically easy to implement that the wonder is that we did not adopt more rudimentary versions of the Digital Dollar Plan decades ago. Granted, paper currency and coin systems of value storage and transfer would not have lent themselves—pun again ratified if not quite initially intended—to use in the way here prescribed. Indeed, they seem historically to have been adopted precisely when populations of political units grew too large to track all transactions on single community ledgers.⁷¹

⁷¹ See generally Hockett, *Rousseauian Money*, *supra* note 1.

With the coming of both computing power and electronic communication of crediting and debiting instructions nearly a century ago, however, the possibility of restoring universal community ledgers enabling the storage and transfer of value became live prospect. In a sense, modern polities and the financial institutions that operate under their jurisdiction have been groping toward such a restoration ever since, with the development and spread of electronic banking, paying, and clearing and settling of transactions. The tentative moves have been made by banks, credit card companies, payment services like PayPal, Venmo and Apple Pay, and central banks and monetary authorities.

All that has been lacking is notice that the same developing technical capacities that render piecemeal groping toward restored public ledgers now possible also enable leapfrogging straight to the obvious endpoint of this evolution—publicly maintained digital ledgers-cum-payment-platforms on which literally everyone is able to transact without cost, and hence accumulate, store, and transfer value. If the plethora of privately-provided, profit-driven, rent-extracting digital payment ‘services’ now proliferating do nothing but remind us of this simple truth, they will have served their social purpose. It then will be time for their makers to drop them and move on to more legitimately productive pursuits.