DEMOCRATIC MONEY AND CAPITAL FOR THE COMMONS:

Strategies for Transforming Neoliberal Finance Through Commons-Based Alternatives

By David Bollier and Pat Conaty

A Report on a Commons Strategies Group Workshop
in cooperation with the Heinrich Böll Foundation

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The logic of neoliberal capitalism is responsible for at least three interrelated, systemic problems that urgently need to be addressed – the destruction of ecosystems, market enclosures of commons, and assaults on equality, social justice and our capacity to perform care work. None of these problems is likely to be overcome unless we can find ways to develop innovative co-operative finance and money systems that can address all three problems in integrated ways. A key driver of these pathologies is the debt-driven growth characteristic of neoliberal industrial economies since the 1980s. Despite the global banking crisis and the grinding austerity policies imposed to repay colossal national debts that are crushing welfare states, the "Gods that Failed" are still in charge, as if no serious breach had happened at all.

Fortunately, new opportunities to pursue systemic change are arising. As the internal contradictions of capitalist finance become more evident, insurgent critiques of the money system and practical alternatives are gaining ground. Near-forgotten historical models of co-operative finance are being rediscovered as new technologies enable novel DIY credit systems, alternative currencies and co-operative organizational models. One might say that a post-capitalist vision for finance and money is fitfully emerging.

But can the eclectic jumble of piecemeal solutions – alternative banks, currencies, lending systems, cooperative digital platforms, policy proposals, and more – be synthesized into a coherent new vision? Can the various projects and players in this sprawling realm find each other, initiate deeper collaborations, and attract wider support?

To explore the possibilities, the Commons Strategies Group, working in cooperation with the Heinrich Böll Foundation, convened twenty-four leading thinkers, activists, policy innovators and funders for a two-day "Deep Dive" strategy workshop. (A list of participants is included in Appendix A below.) The group discussed specific ways in which conventional banking, finance and money systems might be transformed to facilitate new types of commons-based provisioning, ecological stewardship, greater economic and social equality, and support for care work.

The workshop – held at the Böll Foundation headquarters in Berlin, Germany, on September 9 and 10, 2015 – was jointly organized by Michel Bauwens and David Bollier of the

Commons Strategies Group, and Pat Conaty of Co-operatives UK.[1] A series of readings was selected in advance of the workshop to introduce key themes and projects (see Appendix B).

This report is an interpretive synthesis of the workshop that distills the key presentations and discussion of the two days. It also attempts to identify key strategic challenges and to consider how the most promising alternative models for finance, banking and currency might be knit into a coherent vision for change. Among the key questions explored: What new systems of financial capital could help incubate commons-based projects that break from the logic of neoliberal capitalism? What new revenue mechanisms or alternative currencies could help maintain commons as commons? And a more complicated question: How can commons interact with existing markets without falling under their sway and jeopardizing the social ethic, values and processes of commoning?

In many respects, the current situation is discouraging. While modest legal and financial systems now exist for "green investment" and co-operatives, their potential is untapped and rarely cross-leveraged. Financing for commons-based peer production is virtually nonexistent. There are no coordinated efforts to bring together and expand alternative money and finance models. Nor is there any serious convergence of players or standing venues through which to develop a broader shared agenda for alternative finance, especially in ways that would assist co-operatives, commons, solidarity economy and other transition-oriented projects.

On the other hand, below the radar there is a huge diversity of successful experiments, historical models that have worked and at scale and policy innovations that point the way toward a post-capitalist vision of democratic finance and money. These include co-operative and community share issues, mutual credit systems, venture capital for community development, community development and social banks, mutual guarantee societies, interest-free banking and co-operative money systems. There are also some remarkable innovations in digital currencies (some based on the "blockchain ledger" technology proven by Bitcoin) and models of "open co-operativism" that blend open digital platforms with co-operative governance.[2] The seeds of a new financial system may also be found among new organizational forms such as multi-stakeholder co-ops, "open value networks" such as Sensorica and Enspiral, and networks of ethical entrepreneurs who are conscientiously combining social purpose with market activity.

All of these developments suggest that it is indeed possible to co-create new forms of economic and financial democracy – instances of a more robust "everyday democracy" that go

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[1] David Bollier is Cofounder of the Commons Strategies Group and an independent author, blogger and activist whose focus is the commons as a paradigm of economics, politics and culture. Pat Conaty is a Fellow of the New Economics Foundation and a Research Associate of Co-operatives UK.

[2] Pat Conaty and David Bollier, "Toward an Open Co-operativism: A New Social Economy Based on Open Platforms, Co-operative Models and the Commons," Commons Strategies Group, January 2015, available at http://www.boell.de/en/2015/01/21/toward-open-co-operativism.

beyond periodic elections. There are, moreover, many instances in history of working class people, women and people of color emancipating themselves democratically through co-operatives and other mutual-support strategies, well before winning the right to vote. So today it is likely that similar innovations in participatory self-help and mutual aid provisioning – especially in banking and finance and the use of digital platforms – will precede and contribute to democratic advances in mainstream politics. This report explores this territory: the promise of new finance and money systems, and the challenges – technical, administrative, legal, political – in moving forward.

I. Why A Transformation of Money, Banking and Finance Is Essential

Why do we need new forms of finance and money? The short answer: Because neoliberal capitalism, especially in the aftermath of the 2008 meltdown, is demonstrably unable to meet basic human needs in socially fair, ecologically responsible ways. Its obsession with economic growth and private accumulation has become predatory and socially parasitic, and the overall system is wired to produce recurrent, catastrophic booms and busts.

Despite the deep structural flaws of national and global money systems, the United States and leading European nations have not sought serious reforms. Instead, and contrary to what many might have expected following the 2008 crisis, they have implemented desperate rearguard defenses to shore up a very troubled and dysfunctional order. The result has been austerity-driven cuts in government services for health, education and social services, ongoing destruction of ecosystems, the privatization of public assets, preferential subsidies and deregulation for businesses, and a general neglect of the jobless, the poor and the marginalized. A growing global precariat is one of grim outcomes of this process.

Paul Mason, economics editor for Channel 4 News in the UK, explained to workshop participants some key reasons for the formidable troubles facing the neoliberal economic order. Drawing upon his recently published book, *Post-Capitalism,*[3] he noted that capitalism has always sought to suppress wages and "smash the social power and resilience of the working class." But historically, when economic growth surged – in the 1850s in Europe, and the 1900s and 1950s across the globe – "it was the strength of organized labor that forced entrepreneurs and corporations to stop trying to revive outdated business models through wage cuts, and to innovate their way to a new form of capitalism." Social and political resistance tended to produce "a synthesis of automation, higher wages and higher-value consumption," said Mason.

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[3] Paul Mason, "The End of Capitalism Has Begun," *The Guardian,* July 17, 2015, at http://www.theguardian.com/books/2015/jul/17/postcapitalism-end-of-capitalism-begun.

But today, he said, this cycle of self-renewal has been short-circuited by information and communications technologies (ICT). Economic growth is no longer boosting consumer spending or creating new jobs; thanks in part to ICT, the economic system is slashing jobs, reducing prices and worsening inequality. Mason observed that ICT have brought about three major changes over the past generation that make current economic realities unique:

> First, communication technologies have reduced the need for work, and blurred the edges between work and free time and loosened the relationship between work and wages…. Even though production is still creating value, wages don't reflect that – and work is becoming more timed, targeted and rationed.
>
> Second, information is corroding the market's ability to form prices correctly. That is because markets are based on scarcity while information is abundant. The system's defense mechanism is to form monopolies – the giant tech companies – on a scale not seen in the past 200 years, yet they cannot last. By building business models and share valuations based on the capture and privatization of all socially produced information, such firms are constructing a fragile corporate edifice at odds with the most basic need of humanity, which is to use ideas freely.
>
> Third, we're seeing the spontaneous rise of collaborative production: goods, services and organizations are appearing that no longer respond to the dictates of the market and the managerial hierarchy. The biggest information product in the world – Wikipedia – is made by volunteers for free, abolishing the encyclopedia business and depriving the advertising industry of an estimated $3 billion a year in revenue.
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> Almost unnoticed, in the niches and hollows of the market system, whole swaths of economic life are beginning to move to a different rhythm. Parallel currencies, time banks, cooperatives and self-managed spaces have proliferated, barely noticed by the economics profession, and often as a direct result of the shattering of the old structures in the post-2008 crisis.

Other analysts like Jeremy Rifkin have confirmed these general tends. Rifkin argues in his 2014 book *The Zero Marginal Cost Society* that "capitalism has become a victim of its own success…. It is boosting productivity to the point where the marginal cost of producing many goods and services is nearly zero, making them essentially free. The result is corporate profits are beginning to dry up, property rights are weakening, and an economy based on scarcity is slowly giving way to an economy of abundance."

While economic structures are changing dramatically, bankers and their political allies operate in denial about a world that is fast-disappearing – relentless economic growth, exclusive control of information and products, access to plentiful and cheap natural resources, and a stable social order (families, communities, education, care work). To deal with the realities of piecemeal collapse, the guardians of the old order are making desperate efforts to prop up the crumbling order, conceding that its institutions are "too big to fail" and yet rejecting serious transformations as politically unacceptable. "We end up conflating 'the economy' and economic rentierism," said Raymond Aitken, a freelance economic change-maker and writer. "To keep this mutant hybrid alive, we have to transform nature and social capital into money at an exponential rate. Otherwise the parasitism of the Real Economy by finance, on which this mutant hybrid economy is based, cannot be sustained. But how much longer can this work?"

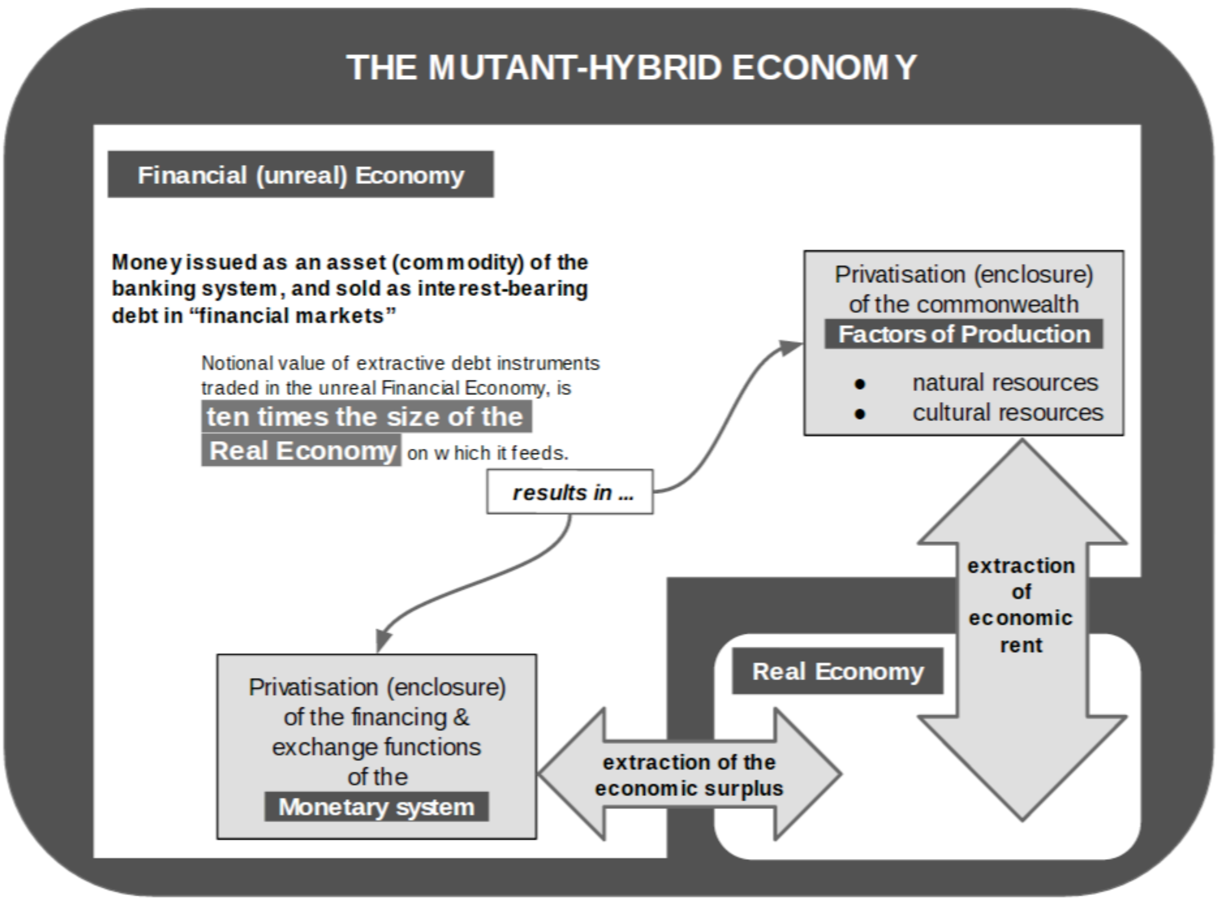

Figure 1: The Mutant-hybrid Economy, which is often conflated with the Real Economy.

Money as a System of Social Order

It is not widely appreciated that money and the money system are social creations that act as invisible instruments of social engineering and order. To illustrate this point, Sybille Saint Girons, a French specialist in social innovation and cooperation, hosted a short game known as "Trading

Floor," [4] which is designed to give players an intense personal experience of how different credit and exchange systems affect an economy and individual and collective behaviors.

In one round of the game, everyone is randomly given two, three or four playing cards (arbitrarily, because life is unequal) and told to use green pieces of paper (money) to buy cards from other players in order to assemble four cards of the same rank. Amassing four matches entitles a player to cash in their cards at the bank for a sweet, and to begin again with a new set of unmatched cards. (Saint Girons plays the role of banker, lending out green pieces of paper and dispensing sweets.) Players discover that they must often borrow money from the bank in order to acquire matching cards; the bank then requires that players repay their loans of two pieces of green paper with three pieces.

As players frantically accost other players looking for matching cards, the bank makes plenty of loans to facilitate the buying and selling. At the end of the round of play, some players have many sweets while others have only a few sweets and lots of unpaid loans to the bank. It turns out that using this kind of scarce money – which is privately loaned at interest – results in busy, competitive and calculating social interactions. It also produces many people in deep debt and with unequal holdings of wealth.

In another scenario designed to simulate mutual credit lending, Saint Girons gave every player a "mutual credit wallet" that lets people play the same game (acquiring four cards of the same rank), but instead of borrowing money from the bank, players record each exchange with a +1 or -1 on their "wallet" depending upon whether they are a buyer or seller. This round of play also resulted in fast trading, but relations among people were not as competitive, and there was no private profiteering from the market exchanges.

In longer versions of the game, Saint Girons lets players experience other variations such as swapping cards without money (which slows trade but engenders good relations); "self-issued credits," which may result in unredeemable credits at the end; and the "bank as trader," which authorizes the bank to buy up sweets, which in turn raises prices and enriches the bank.

The physical and emotional experience of working on the "trading floor" under different structures of money and credit underscored how the bank's outside control of the money supply can drain a local economy. It also showed how money is only a proxy for real value and how different systems of money engender different kinds of social relations and behavioral norms.

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[4] http://www.valeureux.org/blog/english/tradingfloor. Instructions for the game (in French) can be found at https://valeureux.wezer.org/forum/jeulacorbeilletradingfloorgame4/question/thetradingfloorgame37. A video of the game (in French) can be seen at https://www.youtube.com/watch?v=G7ek5L3t_bM. A video on the Theory of Relative Money (in French) can be watched here: https://www.youtube.com/watch?v=ToG0594QTow&list=PL7C4X2mGzM_poSLsQbsUrOKuDYp23nGhT

Public Money as an Essential Alternative to Bank-created Money

As the "Trading Floor" game suggests, the character of money – how it is created, how it circulates, who controls it, and its link to debt (or not) – is a vital question in rethinking progressive finance. Mary Mellor, emeritus professor at Northumbria University, gave a lucid presentation explaining the social and political underpinnings of the current money system – and how they must be overthrown. Mellor argues that we need to recapture public (government) control of the ability to create money from the private sector so that money can be used to serve public, democratically determined needs rather than the narrow profit-making goals of private lenders. Her presentation derived from her paper, "Public Money for Sustainability and Social Justice," which reflects her analyses of money in previous books and her new book, *Debt or Democracy*.[5]

"The critical political question," said Mellor, "is, Who controls the creation and circulation of money?" There are essentially two forms of money-creation, she noted: public money, consisting of coinage, notes and "quantitative easing" (unsecured government lending to banks), and private money created through bank loans and credit. Mellor believes that we need to recover the power of public currency to meet public needs. By "public currency," she means "the generally recognized and authorized public currency created through a public money circuit that originates in central banks and government spending." Privately created currency is money designated as public currency that is issued through the banking sector as loans. It is the fact that bankers are creating the public currency when they make loans that makes the state liable to honor that money when banks go into crisis.

The government, as the sovereign, has the authority to issue new money – an ancient authority known as *seignorage*. But in practice, governments have surrendered this authority to the commercial banking sector, whose lending creates nearly all of the money in circulation as debt. Banks create money out of thin air by issuing new loans, which then circulate as currency. They need not have those specific sums of money on hand, in a vault (except for a small fraction of reserves of the total sum lent, as required by "reserve banking" standards). Bank lending quite literally introduces new supplies of money into the economy based on a strictly private, commercial standard – the ability to repay the debt with interest.

If money is so easily created by private, commercial banks, why then do they persist in portraying the money supply as a fixed pool that is always striving to find the most efficient form of investment? Mellor's answer: Because this portrayal of the money supply as a fixed pool lets banks condemn taxation as a drag on production, economic growth and their profitable lending.

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5 Mary Mellor, *Debt or Democracy* (2015), *The Future of Money* (2010) and *The Politics of Money* (2002, co-authored with Frances Hutchinson and Wendy Olsen).

Mellor calls this simple-minded and self-serving understanding of money "handbag economics," an allusion to the prominent handbag that Great Britain's neoliberal Prime Minister Margaret Thatcher always carried around. "According to handbag economics," said Mellor, "there is no such thing as public money, nor can public money be created except through private banks." To underscore the folly of governments creating money, bankers reflexively cite the ruinous inflation that results when the German Weimar Republic "just printed money."[6] The assumption is that governments cannot legitimately issue money or create wealth; that can be done only through bank-issued credit, or lending – or so goes the story. Therefore, any public spending without first collecting the money through taxation is deplored as reckless "deficit spending." Mellor argues that in practice governments are always spending in advance of taxation. States spend first and tax later. If they taxed first, deficits would never arise.

The standard narrative about banking and money also conveniently ignores the fact that governments routinely supply "basic money" to private banks to keep them afloat, said Mellor. "The commercial circuit of money is unsustainable socially, ecological and economically," she noted. Commercial money-creation ends up harming the environment by requiring constant growth as companies strive to repay loans with interest. The requirement that more money must be paid back than is lent is itself an economic contradiction, said Mellor: It "requires an additional source of money or a continual expansion of loans," which tends to channel money to speculators and produce boom-and-bust cycles that spur all sorts of associated social disruptions.

In the end, it is always the public capacity to create public currency free of debt that stands behind the private banking system, as we see repeatedly when debt bubbles burst and bank runs threaten to ruin the economy. The 2008 financial crisis is a case in point. The state always needs to intervene as the lender of last resort. "All formal money systems are essentially public, resting on public trust and public authority," said Mellor. "If we can demonstrate that the commercial banking sector is parasitic on the public sector, we can begin to ask why do we allow it to *control* the public sector?" The obvious answer to taxpayer bailouts and subsidies to private banks is to "harness the democratic right to create money" and use it to serve public purposes. She continued:

> The power to create money has shifted from sovereigns to the commercial sector, from the ruling class to the merchant class. What is needed is to transfer this power to the public. The central bank must return the sovereign prerogative of money-creation free of debt to the people, for the benefit of the people, as a public resource. That is, money must be democratized. This is particularly the case if we wish to create socially just and ecologically sustainable provisioning systems – a much better concept than "the economy."

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[6] To pay reparations from World War I, the Weimar Republic in 1923 introduced a flood of paper money into the economy. Hyperinflation ensued, causing great social upheaval as Germany's currency became worthless.

Moving toward this new orientation of "democratized money" requires that we change our understanding of what it means for government to create money. It does not consist of "deficit spending" as presently understood – i.e., money that must be repaid to banks; government creation of money is a sovereign prerogative for meeting public purposes. After all, when central banks use "quantitative easing"[7] to save troubled commercial banks, they are in effect issuing a public currency nominally intended to serve a public purpose (preventing economic collapse), even if it also amounts to a private business subsidy.

Such acts raise the question: If it is acceptable to create public money to sustain private commercial finance ("quantitative easing"), why isn't "quantitative easing for people" (and the environment, infrastructure, etc.) also a feasible, responsible policy option? Why can't public currencies be created to serve all sorts of public needs without incurring government debt?

The problem is largely one of ideological framing: "Handbag economics" requires us to see money as a purely commercial asset, not as a public asset, explains Mellor. It requires that money creation occur chiefly through the private profit-making of banks (loans), and not through the government as a way to serve public purposes. She noted: "Commentators from both the left and right have largely ignored the democratic potential of money. They focus on the 'real economy,' which is generally taken to be the capitalist productive sector. Money is seen as a secondary aspect, whereas it should be seen as an active, politically constructive agent. All money is a credit that represents an entitlement for the holder, but not all money represents debt."

Because over 95% of money in the more developed national economies is held in bank accounts with only a small amount circulating as cash (coins and notes), private sector debt-based money is perceived to be the unquestionable norm. Mellor explained that it is entirely responsible to reconceptualize our understanding of money: Instead of seeing money as something that government must borrow from banks, we should see it as a debt-free public supply of currency that could prioritize socially necessary expenditures, without first raising revenues through taxes. There need be no "deficit"; the money would simply represent a public source of new money, a function that private banks already perform. The difference would be that public currencies would be interest-free and support democratically determined needs – not primarily the commercial priorities of private lenders.

Mellor called for recognition of the existence of a "public circuit of money" that operates according to a different logic than the dominant monetary system: States already spend before they tax, rather than taxing before they spend. However, "shifting control of money supply to the public money circuit would require different monetary management. The commercial circuit based on debt

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7 Quantitative easing refers to the monetary policy in which a central bank purchases government securities or other securities from the market in order to lower interest rates and increase the money supply. Its purpose is to stimulate the economy when standard monetary policy has become ineffective.

has an automatic dynamic: debts must be repaid…. [But] money created free of debt does not have the impetus of repayment. The main ways to complete the circuit would be to charge for services, to tax, or to provide the public with investment opportunities. While the balance between these would be a matter of public debate, an independent monetary authority could assess the overall amount of money that should be retrieved so as to leave enough to enable all commercial and public payments to be made while avoiding inflationary pressures."

In her paper, Mellor elaborates on the complications of providing "debt-free public money for sufficiency provisioning." Although this type of public money could be used to build various social economies, Mellor believes that it should be deployed to serve a larger, universal goal: "We need a new monetary allocation that gives everyone the right to livelihood. How do we establish a common right to a livelihood? That's a big political question that we can't avoid."

In Mellor's vision, public money would be used "not just to represent work done; it would be an entitlement to livelihood. Securing needs-based provisioning could allow people to adopt less employment-intensive and consumer-intensive lifestyles. This does not mean that there would be no paid work, she said. It means that "people would be mainly engaged on democratically determined priorities." Mellor stressed that "the approach to money and the economic framework would be very different" under such a system of public money. But that it is not a utopian vision, she insisted, because the use of public money already exists: "The power of public money has been made clear through its use to rescue the banks. Let it now be used to provision the people."

Can Money and Commons "Play Nicely" Together?

While workshop participants found Mellor's presentation on a public circuit of money compelling, some worried that the analysis is based on certain tacit assumptions, such as that money itself creates wealth; that more money for commons would necessarily help them function well; and that government spending is necessarily directed at public purposes. Silke Helfrich of the Commons Strategies Group warned that a recovery of "public money" for public purposes presumes a kind of Keynesian financial role for the state and economic framework, which, given current political forces, would not likely support commoning. Silke also raised a deeper question: Is money itself incompatible with commoning? Does money represent "social value" or does it necessarily represent and entrench "commodity value"?

Pat Conaty, a fellow of the New Economics Foundation and research associate with Co-operatives UK, said, "I see money as a mechanism of exchange of social value. You can develop your own local money system with tokens, for example, or keep a record like LETS.[8] The whole point is that 'social relations of credit,' through money, are the basis upon which relative strangers

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[8] "Local Exchange Trading Systems," a class of community enterprises for hosting local exchanges of goods, services or credits.

can participate in a cooperative system." At the same time, Conaty stressed, "I want to tap into the power of national currencies, too. Why should banks control all of that?"

But Silke Helfrich worries that money tends to shape and influence our social relationships by imposing impersonal, transactional relationship patterns on our lives. "I'm not saying we want to de-monetize everything," she said, "but social relationships that are mediated by money are based on the idea of equivalent exchange" – the idea that parties enter into transactions in which each directly gives something of value for something of equivalent value. "We need to deal with that logic underlying the everyday use of money if we want to understand what money and capital do to the commons and to us," said Helfrich.

Mellor replied that her envisioned system of "provisioning for sufficiency" incorporates the idea of unpaid labor and the right of livelihood; it does not depend upon money-based *quid pro quos* – although neither does it banish them. Ultimately, "the commons must make its own affirmative demands on the money system and not let it become a market force," said Mellor.

For John Restakis, the former Executive Director of the British Columbia Co-operative Association in Vancouver, and now Executive Director of the Community Evolution Foundation, the more important issue is "reclaiming social control over markets, the economy and money." "How are surpluses generated, and to what uses are they put? Surpluses can be of social use and benefit; that is what makes them amenable to commons structures."

Restakis argued that "commoning" and the commons are not necessarily incompatible with financial systems and money. It depends on what purposes these systems are put to. Reclaiming money and financial systems for social purposes is possible, through shared infrastructures, for example, or community sharing of resources. "It's crucial to think about commons as a way to reclaim markets for social use. To cut off a collective, whether a commons, co-operative or the wider social economy, from the world of markets and money is self-delusional and ineffective," he said. "It undermines the purpose of these organizations, which is to socialize and democratize the economy. So when I talk about 'social markets,' it is about people having the capacity to use market mechanisms for social uses. It's as simple as that."

This is a persistent challenge for commoners, said Michel Bauwens – finding ways "to develop non-capitalist forms within the dominant capitalist logic. Markets will continue to exist, but the question for us is, What kind of market should exist – and how to subsume market logic so that it doesn't undermine the dominance of commoning?" Bauwens believes that it is entirely possible for communities to assert their goals over and above markets, citing the Amish and their rejection of new technologies that could harm their communities. "Communal shareholding is not the same as market logic and pricing," he said, adding that "history has mixed systems, never one system." Hence the vital relation between the state and commoners with regard to money creation.

Bauwens noted that market imperatives are a constant danger even in such benign systems as mutual credit because they emphasize equivalent value exchange for individuals rather than commoning. Hence, Bauwens favors a sharp divide between the commoning aspects of the open productive communities, and the market activities of the associated entrepreneurial coalitions that create added value "on top of" the commons. Some experiments such as Sensorica, with its open value accounting, tend to blur this distinction by measuring all commons contributions to potential market revenue in a direct way. The alternative is to keep market functions in the entrepreneurial coalition, and to leave the commons untouched by measurements of value.

Money can be seen as connected to commons in two different ways, said Bauwens. First, the money system itself can be seen as a public function, which can be co-governed by its user communities; it need not be governed by a state monopoly and money need not be privately created through banks. Second, money can be seen as a form of peer production itself – i.e. the ability of citizens, and not just the state or private players, to create money. While Bitcoin can be seen as a first proof of concept that post-Westphalian,[9] globally scaleable and self-produced currencies are in fact possible, its design for rent extraction disqualifies it as an expression of commons-produced money. Nonetheless, the technology underlying Bitcoin may open the way to global civic currencies produced and governed by their respective user communities.

The argument that commoning is incompatible with money is reflected in the very language and conceptualizations that we use to talk about markets and profit. Jason Nardi, Coordinator of the Social Watch Italian Coalition and an activist with the Solidarity Economy (RIPESS International), wondered, "Can we re-imagine profit for other uses?" He prefers to think in terms of "putting aside a reserve for the future – a pre-financing of what I will do in the future rather than a 'profit'." Nardi regards profit as something fungible and not organically connected to the social community, in the fashion of money.

But John Restakis believes that "profit" should not be shunned as simply a capitalist terminology: "It is vitally important not to concede the language of economics, profits and markets to capitalists and to only a narrow, neoliberal way of thinking. Once we do this, we have already lost." This debate goes to the heart of the difference between debt as a liability and equity as both capital and an asset with which social organizations can earn and build their net worth and reserves. Equity consists of that which is earned, saved and retained as an asset. Co-operatives can appeal for such investment as co-operative capital.

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[9] The Peace of Westphalia treaty, which ended the Thirty Years War in 1648, established nation-states and the principle of international law that nations have sovereignty over their territories and domestic affairs, including money. Nations are regarded as legally equal, and intervention in the internal affairs of another nation is regarded as a violation of state sovereignty.

II. HOW CAN WE FINANCE COMMONS AND COMMONING?

These discussions about the money system and its political implications naturally led to the question that brought us together: Can we mobilize "capital" for the commons? What novel systems might we build to finance commons and commoning?

This question does not have a straight-forward answer, but first requires that we ask a more fundamental question, *What is the role of money and credit in a commons-based society?* Thomas Mehwald, a Berlin-based economist and activist engaged with commons-based finance and development, asked us to imagine the proper role of money in such a future: "Commoning is a process of imagining and creating shared resources. Finance is funding people to enable them to common. This is a very different thing than buying or creating assets, or conventional lending. It's about funding a *process*."

Jason Nardi, the Italian solidarity economy activist, believes that advancing the commons does not mean resurrecting a new version of socialism but rather elevating "commonification" over "commodification." This means "a rethinking of property rights, the allocation of benefits from a provisioning system, individual responsibilities and obligations to future users." Commonification means "reinventing systems of provisioning that can work," said Nardi. It is important to preserve and celebrate individual initiative, he said, but also to avoid the technocratic mindset that often comes with professionalization, managerialism and marketization.

Participants agreed that commonification requires much more than inventing ingenious finance systems; the process must take place on several levels simultaneously. The macro-economic problems of the current system, post-2008, are now well-known and well-documented, but the appropriate meso- and micro-level responses – i.e., the intermediate and local institutions – remain unclear and where they do exist they are fragmented. Also missing is a clear holistic vision of how to conceptualize a commons-based economy as a complex adaptive system.

For example, there are many open design communities working on a global level that are capable of local production and distribution of useful machines. But the means to finance ecologically useful, inexpensive and non-proprietary equipment are simply not available. "We have access to the means of production," Michel Bauwens said, "but we can't finance them." Many open design communities – for open source farm equipment, motor vehicles, furniture, software and electronic computer components – cannot necessarily predict in advance what "final products" their commoning will produce. And they have no desire to claim exclusive, proprietary ownership in the outcomes, which presents novel financing challenges. But Pat Conaty of Co-operatives UK believes that banking can be reinvented to deal with the irregular lending needs of evolving ecosystems of production. It may take careful design and greater one-on-one work, technical assistance and business advice, he said, but such innovations in social lending have been made in the past.

It may be best to see finance in a broader cultural context and not simply as a narrow technical issue, advised Pedro Manuel Sasia Santos, ("Peru"), who is a board member of Banca Popolare Etica, a pioneering ethical lender in Italy and Spain. Culture and social practice must change along with individual and local perspectives about self-interest, he said. The new circuits that need to be developed are not just new economic flows of money, but new *social* circuits: new forms of commoning to meet people's needs. The challenge is to integrate the social and the financial into a new paradigm.

Reconceptualizing Credit and Risk for the Commons

Many participants noted that the conventional financial system is dedicated to an economy of exploitation and extraction. It is chiefly about the extraction of economic rent,"[10] said Raymond Aiken. It uses privatization and enclosure of productive resources (both natural and cultural) to extract the economic surplus that is generated through the division (specialization) of labor and its productivity-enhancing organization. This value-extraction process is predicated upon the "enclosure of the credit commons," through the privatization and commodification of money. Money arises as the allocation of the credit of a nation, in the form of purchasing rights, which should be "backed by" reciprocal obligations of future production.

The transformation of money from a social relationship into an interest-bearing asset (i.e., a commodity that can be bought and sold), is the foundation of financial markets. A diversity of financial instruments, and therefore of markets (money, bonds, stocks, derivatives etc.), exist as an interlocked system of the "financial economy." At last count, the notional value of extractive debt instruments traded in this Unreal (financial) Economy was ten times the size of the Real Economy on which it feeds. These exclusionary financial realities are immensely frustrating for commoners because they cannot add their own value and capture it within the existing production and financial system that drains this value away into private pockets. The only hope lies in supplanting the "parasitic rentier system" that now prevails, said Aitken, and to reintegrate the realms of "nature" and "culture" into a reconceptualized whole.

So how might a bank that finances commoning behave? asked Thomas Mehwald: "We need to think more deeply about risk in relationship to commons. How can actual financial institutions deal with risk in lending to specific populations? How can they change their conception of value and invent different logics and mechanisms for finance?"

Robin Murray, an industrial and environmental economist in the UK, noted that "a group or community lowers the risk of failure because of the sense of mutual obligation and support."

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[10] See Dirk Bezemer and Michael Hudson, "Incorporating the Rentier Sectors into a Financial Model," *World Economic Review,* Vol. 1, republished at http://michael-hudson.com/2012/09/incorporating-the-rentier-sectors-into-a-financial-model-3.

Grameen Bank, the famous microfinance organization and community development bank in Bangladesh, was built on this insight that communities can manage risk through the mutual guarantees of participants in social organizations. Murray added that "since money is an abstraction from the real economy in the first place, the goal should be to re-embed money in a social context to 1) reduce the risk of credit; and 2) enhance returns through the "realization of impact" (intrinsic use-value or ecological value rather than a strict financial return). Indeed, a key purpose of co-operative organizations is to enable risk to be democratically managed and collectivized.

Oscar Kjellberg, a former banker at JAK Bank in Sweden, agreed: "Banks want borrowers to assume 100 percent of the risk. The alternative finance system that we want must enable *everyone* to share risks and benefits." Pat Conaty argued that "we need to reconceptualize how we think about risk and turn things inside-out so that resources and risk are socially owned and managed beyond small organizations, by people more widely, and by collaborative stakeholders." Conaty commended the work of "Social Adventure Capital" funds that some foundations and social banks in the UK have devised as a way to deal with unknown or unfamiliar risks.

For example, the national Community Land Trust Fund in the UK has used such "risk sharing" funds to help finance housing and workspace owned by community land trusts. The Community Land Trust Fund, operating since 2005, helps communities in rural and urban areas of England and Wales develop a project plan for a site and fund the professional fees for a planning application; it also helps with construction of CLT buildings in partnership with other social banks. Loans to a community land trust as a "commons project" posed unfamiliar risks to conventional banks because the buildings sit atop "decommodified land" owned by the trust, not a typical property owner. To manage the riskiest parts of the transition under the Community Land Trust Fund, each CLT that secures capital contributes a small payment to a revolving risk fund that provides social insurance to each project. Additionally the CLT Fund and the social banks share the construction-stage risks. The CLT Fund is a good and successful example of what Conaty described as a "social adventure capital" fund that is providing "capital for commoners."

Cliff Rosenthal, a long-time leader in community development financial institutions in the U.S., suggested that new sorts of "crowdequity" or co-operative capital may be a source for initial financing stakes and risk management. Such seed capital can make it more attractive for government and other public lenders to provide additional quasi-equity at a lower risk. Without crowdequity, Rosenthal warned that it can take a long time for a co-operative or other commons-based enterprises to build up any substantial net worth and such organizations will struggle to survive without external infusions of capital. This is an issue of moral hazard but fundamentally as well of "bankability" for any lender or investor, including social ones. While banks will not lend without ample collateral, social lenders need to be sure that projects are putting up their own equity so that their risk-sharing is evident. This avoids the danger of free riders.

Another possible way to spread risk, said María Perulero, is "distributed micro-guarantees." Perulero helps oversee campaigns for Goteo, the commons-oriented crowdfunding platform in Spain. She explained that distributed micro-guarantees by large number of people can be an effective way to ensure that loans are paid back. But can they scale and raise large sums? Perulero lamented that it is difficult for a nonprofit such a Goteo to solicit guarantees for larger risks. She reported that the platform may eventually have to reject its own nonprofit organizational model in order to raise capital for commons projects. At a certain point, too, many big donors do not want to be donors, but rather investors who can reap a return on investment.

Any of these models require a "shared solidarity fund" supported by a network of commoners, said Jason Nardi. They also need a revolving fund to support new initiatives and to provide collateral for loans to existing projects. He stressed that the benefits (or financial returns) must be perceived as part of a collective's risk-sharing, and that the community must have clear expectations and clear decision making in assuming risks.

A core problem, as noted above by Michel Bauwens, is that current forms of lending are usually structured as purely financial transactions for private parties and particular initiatives, not as socially minded processes that engage large groups. Another problem is that "people's ability to know about and share risk is inversely related to the size of an institution," said Cliff Rosenthal. It is easier for people who know each other to share risks than for larger groups to do so. This is not an insuperable problem – the 100 million credit union members in the U.S. demonstrate that risk-sharing can be shared – but it nonetheless requires innovative approaches, particularly since borrowers for socially minded purposes tend to have less income and less collateral and thus present greater risks (as measured by conventional standards). It was also pointed out that the public sector can and does provide loan guarantees to mitigate risk, especially for small business development. These should not be ignored as they are a key risk-reducing resource. It is important to advocate and ensure such public loan guarantees are also available to co-operative and commons projects.

How might these problems be overcome in a more coherent, strategic fashion? The next session of the Deep Dive examined a range of alternative banks, credit systems and currencies that are already providing novel forms of credit for various social and ecological purposes. Significantly, these alternatives provide effective risk management systems, either through social or public sector mechanisms. Expanding these models, or adapting their core elements, could provide welcome new forms of capital and credit for commons.

III. Nine Institutional Forms to Transform Finance

The good news is that, if credit and risk need to be reconceptualized to serve the commons, there are a wide variety of historically proven and promising emerging examples to look to for guidance. Workshop participants told about their firsthand role in many socially minded models of finance. The more familiar forms include social and ethical lending, community development finance institutions, and public banks, which are dealt with first. We then move to the more innovative, still-emerging financial models, such as transition-oriented credit, the blockchain ledger in software as a community infrastructure, complementary currencies, crowdfunding, and new organizational forms to enable virtual banking. (Many of the short summaries below draw upon longer elaborations made in papers written by workshop participants.)

1. Social and Ethical Lending

Social banking, sometimes known as "ethical banking" or "sustainable banking," is a familiar, important credit alternative. Ethical banks are actively concerned with the social and environmental impact of their loans, and therefore focus on borrowers associated with the fair trade movement, corporate social responsibility, local businesses, and other social concerns. One can get a sense of the size of social and ethical banking movement by looking at the European Federation of Ethical and Alternative Banks and Finance Companies (FEBEA), founded in 2001, which has 25 members from 13 European countries, serving more than 528,000 people and holding assets of about 28,000 million euros in 2012.

Pedro Manuel Sasia Santos, the first Spanish board member of Banca Popolare Etica, told of his experiences with the pioneering ethical bank (www.bancaetica.org). The bank was begun nearly twenty years ago when the MAG co-operative societies (self-management mutual associations) in Italy decided to pool their savings to create their own bank to finance socially oriented projects. Two cooperative projects, Fiare and Banca Etica, joined together to create a credit cooperative in Italy and Spain with a project portfolio comprised exclusively of sustainable and alternative finance ventures. Sasia said that Banca Etica's financing pays special attention to microfinancing, startups and entrepreneurial ventures, social housing and cohousing, environmental projects and food sovereignty organizations. The bank has a balance sheet of €1 billion in savings and €825 million in loans that are fully transparent as to where they are allocated and for what ethical purposes.

There is also a strong public sector linkage through the bank's partnerships with over 400 local government administrations. The bank's equity, currently €52 million, is owned by over 35,000 shareholders and 90 local groups. Indeed, the bank was established and its systems co-designed through a deep consultation with local group founders.

Banca Etica does not seek "to reject the basic rules of finance, but rather to reform its main values," according to the bank's website. The bank formally regards "access to finance, in all its forms," as a human right. It also declares that "profit produced by the ownership and exchange of money must come from activities oriented towards common well-being and shall have to be equally distributed among all subjects which contribute to its realization."

The lending process is more open and flexible than conventional banking, Sasia said, with loan officers who concentrate on cohousing and ecological projects, among other types of specialty lending. Banca Etica also strives to achieve "maximum transparency of all operations" and "the active involvement of shareholders and savers…." As a co-operative bank, governance operates according to one person, one vote, with a policy of no dividends on shares. This policy enables trading surpluses to be put into reserves and reinvested. Because the process is more open and socially committed, Sasia said that lending is more of a straight-forward, transparent conversation than the usual creditor/debtor relationship. Sasia reported the loan default rates are four to five times lower than the market average.

Dozens of local member groups are the basic unit of support for Banca Etica, said Sasia. "The local civil society groups operating with us in Italy and Spain have real power: They promote ethical finance, take part in governance processes, connect the bank with the region, create relationships with other organizations, and develop social analyses of credit requests." He explained that Banca Etica succeeds because it is constantly creating "new social and financial circuits, and sharing the aspirations of others seeking change. Ethical finance is about helping to construct a different economic system."

Another notable ethical finance pioneer is Sweden's JAK Bank, a co-operative based in Skövde that operates nationally and has been making interest-free loans for fifty years. JAK, which stands for *Jord, Arbete Kapital* in Swedish – "Land, Labor Capital" – "operates on the basis of mutual aid and financial reciprocity among its 35,000 members," write Pat Conaty and Mike Lewis.[11] "JAK members agree to pool their savings and then lend them to one another, interest-free, for mortgages, home improvement, student loans, social enterprise, ecological projects, etc." JAK Bank has 30 local branches across Sweden and 650 community-based volunteers who recruit new members and help the co-operative bank engage with different local communities.

Perhaps the key innovation offered by JAK Bank is the use of a lending model that rejects compound interest in favor of a straight fee. As Conaty and Lewis explain, JAK Bank members "believe that compound interest fuels the short-term perspective that only projects yielding a higher profit than prevailing interest rates are worthy of investment. This leads to an over-emphasis on large-scale projects (shopping centers, etc.) or high-yielding short-term projects (e.g., extracting finite

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[11] Pat Conaty and Mike Lewis, "Sweden's JAK Bank: Liberating Finance from the Ball and Chain of Compound Interest," *Making Waves* [magazine], 2010, at http://community-wealth.org/content/sweden-s-jak-bank-liberating-community-finance-ball-and-chain-compound-interest.

natural resources) at the expense of long-term, financially lower-yielding projects (e.g., alternative energy, ecological farming, etc.)."

In its operations, JAK Bank resembles a member-driven and -governed credit union except that no interest or dividends are paid. Instead, members reap benefits by having the right to borrow without interest, paying a one-time loan appraisal and set-up fee. A monthly loan repayment must be supplemented by a "post-savings payment" of the same amount, which essentially forces borrowers to save while repaying the loan. But because of the interest-free loan and compulsory savings to replenish the loans pool, a borrower reaps substantial cost savings over the course of a loan compared to conventional bank loans. A borrower with a ten-year loan of $20,000 not only saves $6,669 in interest payments but, thanks to the mandatory saving plan, accumulates an additional $20,000 in share-deposits. Loans in the JAK Bank portfolio range in size from $3,000 to $1 million, with a median loan amount of $23,000. The percentage of bad debts is less than 0.5%.

The enormous social benefits of JAK Bank's interest-free lending must be understood in the context of compound interest, which is embedded as a major, invisible cost in modern industrial societies. Conaty and Lewis cite research by the late German money expert Margrit Kennedy, who found that up to 50% of the cost of essential goods can be traced to compound interest (e.g., 12% for the cost of trash collection in Germany and 70% of the cost of public housing). Compound interest significantly inflates the cost of living and aggravates income disparities. In the U.S., more than one in four low-income households spends over 40% of its income to service debts[12] -- a sum that is steadily growing because of very high ceilings on permissible interest rates.

The JAK Bank experience is inspirational, but hardly unique, noted Pat Conaty of Co-operatives U.K. Habitat for Humanity, the international community of volunteer home-building groups, has developed the Fund for Humanity over the past several decades. From the outset, it has been essentially an interest-free lending model that has paid for the construction of over 500,000 homes in over 90 countries. Capital is attracted through gifts and it then makes loans with fees simply to cover the systems administration costs and a marginal rate for risk.

Interest-free lending models like the Fund for Humanity and JAK co-operative bank were commonplace in Great Britain and Ireland until a century ago, said Conaty. Known as "terminating building societies," there were hundreds of such democratically owned mutual lending institutions, typically based in pubs. They were the main providers of finance (all interest-free) to buy land co-operatively and to build homes in working class communities when banks did not provide such credit to lower income groups. Starr-Bowkett societies operated similarly in England from 1845 to 1900 before dying out, but they continued to lend interest-free in Australia well into the twentieth century.

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12 Mark Jickling, "Consumer Bankruptcy and Household Debt," Congressional Research Service, CRS Report for Congress, March 14, 2010, available at http://www.bna.com/webwatch/bankruptcycrs3.pdf.

The word *credit* comes from the Latin word *credo* – "to believe in and trust." The problem is that, in the face of pervasive usury, the social and trust based underpinnings of credit have virtually disappeared. The Banca Etica and JAK Bank experiences and other numerous historic examples help us reconnect credit with the concept of equity, in the sense of equitable, fair and trustworthy.

2. Community Development Financial Institutions

A notable innovation for providing access to capital to the poor, working class and minorities are "community development financial institutions" (CDFIs), a species of cooperative and mutual lending institutions that have proliferated in the U.S. A key leader in the movement to build and expand CDFIs, Clifford N. Rosenthal, the CEO of the National Federation of Community Development Credit Unions for 30 years, presented a brief history of the CDFI movement in the U.S., drawing upon a paper prepared for the workshop.[13]

CDFIs drew upon the considerable history of credit unions, which have democratized access to capital, especially in the face of racial discrimination. "As alternatives to banks for 'people of modest means,' the credit union movement in the U.S. has achieved impressive success since the early twentieth century," Rosenthal writes. "Today, 100 million Americans belong to credit unions, which hold an aggregate of more than $1 trillion in savings. Credit unions are the largest cooperative sector in the United States. But the credit union movement – like banking in general – has seen systemic consolidation for several decades: around 1980, there were approximately 20,000 credit unions in communities across the United States. Today, there are barely 6,000, although on average they are much larger and more sophisticated." Credit unions are strictly democratic institutions, with one member, one vote governance.

Community lending began to have larger ambitions in the 1980s as innovations such as the Grameen Bank started by Mohammed Yunus in Bangladesh, and the community-development South Shore Bank in Chicago, began to gain prominence. After Bill Clinton was elected President in 1992, he helped push through legislation to create the CDFI Fund, a new federal agency charged with investing in credit unions, community loan funds, community development venture capital, and microenterprise funds, among other alternative lending institutions. Taken together, these community development lenders constitute a diversified finance ecosystem for socially minded purposes, from housing and community land trusts to small businesses and social organizations. Today there are more than 1,000 mission-driven organizations officially recognized as CDFIs, and another two or three times as many institutions doing similar work but without official certification. Their collective assets amount to tens of billions of U.S. dollars.

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[13] Clifford N. Rosenthal, "The Quest for Community Controlled Capital: Community Development Finance Institutions in the U.S.," at http://tinyurl.com/qctmv98

Following the election of Barack Obama as president, CDFIs experienced a boom. The CDFI fund was given annual appropriations of more than $200 million, and it became a "delivery vehicle for other innovative initiatives to deliver capital on a larger scale to communities," said Rosenthal. CDFIs flourished. However, the aftermath of the 2008 financial crisis left many credit unions over-exposed to sub-prime mortgage-backed securities. A national "credit union for credit unions" that invested member funds, U.S. Central Credit Union, went insolvent, and its ripple effects affected thousands of ordinary local credit unions, said Rosenthal: "U.S. Central aspired to be a full-fledged participant in the capitalist marketplace. Seeking yield over mission, it failed."

By 2015, American CDFIs "had received nearly $2 billion in direct federal investments, and several billion more through a tax credit program," said Rosenthal. "They included unregulated loan funds that had grown from almost nothing to hundreds of millions of dollars of assets….The combined assets of CDFIs were approaching $50 billion."

What lessons can be learned from the CDFI experience of the past generation? Rosenthal concluded:

> Over the decades, leaders of the CDFI movement had questioned whether it was, in fact, a *movement*, or perhaps an "*industry.*" Some answered that it was both. Others argued that it didn't matter: the key question was simply whether these institutions, the earliest of which were founded by social and civil rights activists, were or were not dedicated above all to *mission.* Would they continue to take risk on behalf of disenfranchised and marginalized people, communities and enterprises – or would the pressures of generating year-over-year surpluses (otherwise known as 'profits') and satisfying public and private investors move them in a bank-like direction?

A related question, Rosenthal said, was whether CDFIs should aspire to grow larger and emulate conventional banks by developing standardized procedures and products, and outsourcing back-office operations. Or should CDFIs regard expansion as unlikely or impossible, and instead strive to demonstrate that "another world is possible" financially?

In the case of CDFIs, it has become clear that the co-operative form itself is no guarantee of progressive social and political results. "Some of members of the broad credit union movement support Donald Trump," said Rosenthal, and "it is hard for CDFIs not to try to generate surpluses – not to shareholders, but as dividends to member-owners, and as reserves and funds for expansion." This fact led John Restakis, a cooperative movement leader from British Columbia, Canada, to conclude that "social and communal values must be made more explicit and integrated into the operational equation of co-operatives."

3. Public Banks

Ellen Brown, an attorney and founder of the Public Banking Institute in the U.S., has been a long-time advocate for public banks as a source of publicly administered credit for social purposes. Drawing upon her books *Web of Debt* (2007, 2012) and *The Public Banking Solution* (2013), Brown explained "why we should own the banks."

The problem starts with the fact that the commercial banking system – as Mary Mellor described above – has managed to win private control of the ability to create money in the form of debt (loans). Commercial banks create most money in circulation by making new loans. "They use this control over credit not to serve business, industry and society's needs," said Brown, "but for their own advantage. They can turn credit on and off at will, direct it to their cronies, or use it for their own speculative ventures; and they collect the interest as middlemen. This is not just a modest service fee; interest has been calculated to compose a third of everything we buy." The role of banks in creating money out of thin air, as stressed by Brown and Mellor as well, has now been officially recognized. The Bank of England acknowledged this fact in its 2014 report, *Money Creation in the Modern Economy*:[14]

> "Where does money come from? In the modern economy most money takes the form of bank deposits. But how those bank deposits are created is often misunderstood. The principal way they are created is by commercial banks making loans: whenever a bank makes a loan it creates a deposit in a borrower's bank account, thereby creating new money. This description of how money is created differs from that in some economic textbooks."

The commercial banking system amounts to "a pyramid scheme with a built-in growth imperative," said Brown, because in order to repay interest – an add-on to the initial sum of money created – the general population must take on even more debt, and at a faster rate than the economy grows. This invariably leads to too much credit relative to economic growth, and thus speculation, soaring prices and boom-and-bust disruptions. And when a financial crisis hits, private banks are the first in line to get government bailouts. Meanwhile, ordinary debtors, by contrast, are more likely to suffer the economic risks of foreclosure and bankruptcy. Indeed, according to regulatory changes passed by the EU in 2013, depositors' savings can now be mined in order to bail out insolvent banks in which they have accounts – the so-called "bail-in" option.[15]

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[14] http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q1prereleasemoney creation.pdf

[15] See: http://www.resilience.org/stories/2015-06-17/why-we-are-all-now-cypriots-to-be-in-the-new-age-of-bail-ins, http://www.globalresearch.ca/financial-meltdown-and-the-confiscation-of-bank-savings-the-uk-eu-bank-depositor-bail-in-scheme/5475934?print=1

Since credit is necessary to a thriving economy, Brown argues that public banks offer a practical solution. The ideal public bank model, she said, is the government land bank started by colonial Pennsylvania in the 1700s, which issued paper scrip to farmers. For every $105 in scrip issued, the government would lend $100 at 5% interest and spend $5 on its budget and infrastructure. The system required no taxes and produced no inflation or government debt. The Pennsylvania public bank was eventually shut down not because it was unsustainable, but because King George forbade colonists from issuing their own money.

Today, the only U.S. state that has its own bank is North Dakota. The Bank of North Dakota (BND) was formed in 1919 "to free farmers and small businessmen from the clutches of out-of-state bankers and railroad men," said Brown, and to promote in-state agriculture, commerce and industry. The Bank has a "massive, captive deposit base – all of the state's revenues." But unlike private banks, which are required to extract as much debt service as the market will bear, the BND can provide very low rates on to residents. For example, it provides loans at 1% interest to startup farms and businesses, and education loans of 1.7% interest to students. Brown noted that public banks could conceivably provide credit to all sorts of commons-based enterprises.

The BND also lets the state avoid paying interest that it would otherwise have to pay to private banks to finance civil infrastructure. Because it returns interest to the state in the form of annual dividends, the BND enables the State of North Dakota to build infrastructure projects effectively interest-free and without raising new taxes – and to return revenues to the state treasury.[16] Indeed public infrastructure costs are cut by about half because government-owned banks recoup the interest that generally comprises about 50% of infrastructure costs.

The BND has substantially lower costs and risk than private commercial banks, said Brown. "It has no exorbitantly paid executives; pays no bonuses, fees or commissions; has no private shareholders; and has low borrowing costs. It does not need to advertise for depositors….or for borrowers." And it does not speculate in derivatives so it does not take on those high risks. While conventional banks have struggled to stay afloat in the post-2008 years, the BND had an average return on equity of 20% between 2009-2014. North Dakota is the only state to escape the 2008 credit crisis. It is also the state with the lowest unemployment rate and one of the lowest foreclosure rates on mortgages.[17]

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[16] In the first decade of this century, the BND dividends contributed over $300 million to the North Dakota state treasury – and all this for a small state with only 600,000 residents. "These profits belong to the citizens, and they are generated without taxation," notes Brown. Profits have in many years approached the amount of tax revenues paid by the oil and gas industry. In November 2014, the *Wall Street Journal* reported that the Bank of North Dakota…."is more profitable than Goldman Sachs Group Inc., has a better credit rating than J.P. Morgan Chase & Co. and hasn't seen profit growth drop since 2003." Chester Dawson, "Shale Booms Helps North Dakota Bank Earn Returns Goldman Would Envy," *Wall Street Journal*, November 16, 2014, at http://www.wsj.com/articles/shale-boom-helps-north-dakota-bank-earn-returns-goldman-would-envy-1416180862.

[17] Josh Harkinson, "How the Nation's Only State-Owned Bank Because the Envy of Wall Street," *Mother Jones*, March 278, 2009, at

BND may be uncommon in the US but there are many other public banks internationally. A study in the 1990s found that about 40% of banks worldwide were publicly owned; most of them are in high-growth BRIC countries [Brazil, Russia, India, China], which have largely escaped the credit crisis, said Brown. Germany and Switzerland also have public banking sectors. In Germany, municipally owned savings bank constitute a key tool for German industrial policy, said Brown, with half of the total assets of the German banking system in the public sector. The Sparkassen banks, Brown noted, "not only have a return on capital that is several times greater than for the German private banking sector, but they pay substantially more to local and federal governments in taxes. That makes them triply profitable: as revenue-generating assets for their government owners, as lucrative sources of taxes, and as a stable funding mechanism for small and medium-sized businesses." These advantages could potentially be used to direct greater credit to commons-based initiatives.

State-owned banks could immediately lower public borrowing costs by investing the state's owns funds and recover the interest on its loans; this money could then serve public purposes through cyclical reinvestment. Such banks can provide capital directly, and in ways that are not extractive. For example, if California were to start its own state bank, it could capitalize the bank with a bond issue for $20 million at 3% interest, and immediately lend out $180 million (based on the $20 million in reserves) by investing the money in municipal bonds at 3% interest. This would safely yield an instant net profit of $4.2 million, or 21% return in equity, and reduce the state's borrowing rate to 0.25%, said Brown.

Public banks might also be adapted to help cities defray the costs of infrastructure – or to support commons projects through low-cost loans or grants. Through public banks that serve social needs, banking can feed the economy rather than consuming it – or as Brown put it, banks can be transformed "from parasite to symbiosis."

Pat Conaty in his presentation pointed out that an historic example of public banking on a national scale, and linked to monetary reform, is the Bank of Canada, which was set up as a public central bank in 1938.[18] The new bank created a subsidiary Industrial Development Bank and together both institutions used almost-interest-free money to pay for Canada's World War II costs, postwar infrastructure, the Trans-Canada highway, the St. Lawrence Seaway and, for decades until 1974, hospitals, schools, farming, old age pensions and vocational education. In 1974, the Bank for International Settlements (the central bank for central bankers) persuaded Canada to abandon this practice. Since then, Canadian national debt has soared from an enviable, marginal level to one comparable to that of other G8 countries. There is now a national campaign and federal court case in Canada to return the Bank of Canada to its monetary reform mission and practices so that

[18] http://rabble.ca/columnists/2015/04/can-courts-liberate-bank-canada

Canadians can avoid further indebtedness to global bankers and secure a co-operative commonwealth.

It was pointed out that while public banks may make credit more accessible to a wider variety of businesses and individuals, they do not necessarily represent a force for systemic change. The Bank of North Dakota, for example, benefits greatly from shale gas exploitation within the state and in this sense remains committed to the prevailing economic paradigm. Around the world, public banks, while offering cheaper forms of credit than private banks, may also entrench conventional extractive, capital-driven forms of agriculture and mining, and extend public subsidies to infrastructure serving conventional industries. If public banks are going to be a force for a real economic transformation, therefore, attention must be paid to their specific mission and priorities in making credit more available.

4. Transition-Oriented Credit

The credit systems reviewed so far can work within the conventional framework of economic growth and global commerce. But can they work within a "transition" context in which communities or projects are consciously seeking to enact a new ecologically minded economy based on no growth or degrowth? Oscar Kjellberg, a former banker at JAK Bank, has helped develop "transition economy" finance alternatives since joining Sambrucket, a local co-farming community co-op of 50 people trying to create a resilient local economy. "I had always wanted to become a farmer, but I was a banker for twenty years. I left JAK because I wanted to make a transition for myself as well as for society. So I now mix finance, agriculture and transition."

Kjellberg's vision of future lending is informed by his understanding of troubled ecosystems, as described in a seminal 1985 research paper by Eugene P. Odum of the University of Georgia. In his "Trends Expected in Stressed Ecosystems" article, Odum enumerates 18 different effects on energetics, nutrient cycling, community structure and general system-level trends.[19] Kjellberg compared society's discovery of oil to an accidental dumping of grain in a meadow. The sudden introduction of a huge amount of surplus energy is enormously disruptive and causes great stress to the ecosystem, he noted: "All of nature mobilizes itself to consume this enormous amount of exergy, which is more or less what our discovery of oil has created in nature. ["Exergy" is the maximum amount of work that can be done by a subsystem as it approaches thermodynamic equilibrium with its surroundings; thus exergy is a measure of a system's "distance" from equilibrium.[20]] We have developed techniques to exploit the historic stores of fossil fuel and consume the enormous amount of exergy," causing the trends identified by Odum.

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[19] Eugene P. Odum, "Trends Expected in Stressed Ecosystems," *BioScience* 35(7):419-422 (July/August 1985), available at http://www.life.illinois.edu/ib/451/Odum%20%281985%29.pdf.
[20] Gören Wall, "Exergy," The Encyclopedia of the Earth, at http://www.eoearth.org/view/article/152707.

As a former social banker now interested in permaculture, Kjellberg is committed to finding a way to move from interest-free lending to crowd equity as a way to cope with a "uniquely disturbed ecosystem" as outlined by Odum. Kjellberg is also influenced by a 2009 book by John M. Greer, *Our Ecotechnic Future*, which describes a post-growth economy that must deal with the realities of dwindling oil, global warming, agricultural problems and financial crisis, among other problems. The problem with JAK Bank or any traditional bank, said Kjellberg, is that they thrive when there is economic growth, but struggle in circumstances of non-growth, or when the market rate of interest is low (which reduces the appeal of JAK Bank as an alternative). Banks generally require a target growth rate of 2-3%. So a central question for Kjellberg is how to devise a credit or finance model that can work well in circumstances of no growth and support a resilient local economy. The Sambruket community in Sweden is attempting to figure out these challenges.

Kjellberg has concluded that Sambruket essentially needs to establish both a natural resource commons and a complementary financial commons to work sustainably. Apart from the agricultural issues that are being addressed through permaculture, resilience theories and transition movement ideas, Sambruket is trying to develop crowdequity in the farm with the help of friends of the project, nearby residents and others in the local economy. It has formed a limited nonprofit company, Crowd Equity, which, through its preferential debentures, is dedicated to supporting local economic development. The Sambruket community realizes that the local economy should be seen as a *social economy* that is based on the financial and social relationships among people in transition and the local community.

While the farm could turn to JAK Bank for a loan, it is deliberately avoiding that option in order to avoid being forced to make regular debt payments. Sambruket, meanwhile, depends upon five forms of income: subsistence, income from owning capital, income from employment, and transfers from outsiders, and income from selling to the local market. The money earned through local markets is not for profit, but to secure livelihoods and support transition.

In these circumstances, said Kjellberg, Sambruket does not really need new financial institutions: "Our members want to change their personal balance sheet; they want to get rid of their loans and debt. What we need are new forms that can aggregate small sums to create equity to meet our needs." Sambruket has inspired the formation of two other local farming community co-ops.

5. The Blockchain Ledger as a Community Infrastructure

Today there is growing interest in new types of money that can better serve communities than conventional fiat money controlled by national governments and banks. The first hurdle is recognizing that "real money" is a social and political construction that can be re-imagined in different, more socially progressive ways. As Mary Mellor's earlier presentation made clear earlier, money need not concentrate power in the hands of a few while leaving social movements without a medium of exchange or credit to meet their basic needs. While reforming the fiat money system is a epochal political challenge, any collective has opportunities to create its own currency – complementary, local, digital or other – to enable its members to exchange value.

One of the more spectacularly successful digital currencies is Bitcoin, which has been embraced by libertarians, techies and black-market hustlers as a private (but not entirely anonymous) currency. Bitcoin is often criticized for enabling illicit activities and for serving as a vehicle for speculation, and indeed, it is not itself a progressive, commons-oriented currency. The real significance of Bitcoin lies in its innovative proof of concept of the "distributed ledger" or "blockchain" technology. This breakthrough in network software design allows people to validate the authenticity of an individual digital object (such as a bitcoin) without the need for a third-party guarantor such as a bank or government body. This solves a vexing collective-action problem that is not easily solved in an open network context: How do you know that a given digital artifact, or bitcoin in this case, is authentic? How do you know that a given document, certificate or dataset -- or a vote or "digital identity" asserted by an individual -- is the "real thing" and not a forgery?

Blockchain technology helps solve this problem by using a searchable online "ledger" that keeps track of all transactions within the system. The ledger acts as a kind of permanent record maintained by a vast distributed peer network, which makes the transaction record far more secure than data kept at a centralized location. You can trust the authenticity of a given bitcoin because it's virtually impossible to corrupt a ledger that is spread across so many nodes in the network. Without such technology, local and co-operative money systems like LETS and other complementary currencies have found themselves restricted to smaller scale trust networks that have constrained both membership expansion and transaction cost efficiencies. Blockchain technology could solve this.

Thus, blockchain technology has ramifications that go well beyond Bitcoin because it can be applied to a wide variety of circumstances in which a community of players – in markets, commons or other circumstances – want a reliable system to manage their interrelationships on network platforms. Many programmers are attempting to develop a software infrastructure for building what are called "distributed collaborative organizations" (sometimes "decentralized autonomous organizations"), which would use blockchain technology to give its members specified rights within the organization. The blockchain could provide a rudimentary (or eventually sophisticated) framework for collective governance of a group.

Alternatively, the blockchain could be used to create a currency that privileges social cooperation and commons accumulation as opposed to Bitcoin's speculation-friendly design. The *New York Times* has reported that a new generation of Bitcoin 2.0 projects is in a race "to harness the technology for use beyond Bitcoin transactions.[21] The blockchain, they say, could ultimately upend not only the traditional financial system but also the way people transfer and record financial assets like stocks, contracts, property titles, patents and marriage licenses — essentially anything that requires a trusted middleman for verification."

Blockchain systems should not be seen as a magic bullet in the sense that human wiles and trickery are not going to disappear because of it. Yet blockchain technology does offer formidable tools for better protecting community rules for digital resources and for empowering commoners to decide their own fate. Imagine a future of distributed collaborative organizations whose internal relations could be shaped in part by software-enabled "smart contracts," reliable deliberative, exchange, and voting mechanisms, community currencies and other co-operative and economic democracy systems. More versatile and secure than Web 2.0 technology, blockchain-based social networks could provide new infrastructures for commoning at a much larger scale than is feasible today.

6. Complementary Currencies

Matthew Slater, a software programmer and money expert, has been focused on the challenge of helping local communities grow their own decentralized money systems. His major initiative has been Community Forge – communityforge.net -- a social networking platform that lets communities create their own local currency, manage exchanges and member accounts, and advertise individual and collective needs. More than 400 communities use the Drupal-based platform to manage their complementary currencies. By the end of 2014, Community Forge supported 550 LETS projects in France, 113 in Belgium, 63 in Switzerland, and 150 timebanks.

Slater is focused on creating DIY community-based currencies such as LETS and timebanks, which use mutual credits. "There is a difference between 'political money' and co-operative money," Slater explained. Slater believes that mutual credit accounting is one of the more powerful ways to help build a solidarity economy. Such co-operative money relies upon jointly administered credit systems as a way of keeping track of accounts among members. "The credits can't be used to buy anything outside of the system," said Slater, "but they can 'create liquidity' within the system. That means everyone within the system can work within the system, without 'buying' anything. You could in principle organize and run an entire country on that basis," he said.

One advantage of the Community Forge platform is that thousands of software developers can set up similar sites and easily modify the open source software, which itself is very high quality and continually improving. Slater agrees with Sasia of Banca Etica that the challenge is to build new

[21] http://www.nytimes.com/2015/03/02/business/dealbook/data-security-is-becoming-the-sparkle-in-bitcoin.html?_r=1 For more on Bitcoin, see http://p2pfoundation.net/Bitcoin; and http://bollier.org/blog/blockchain-promising-new-infrastructure-online-commons.

social and economic circuits within and among communities. Slater would like to leverage the existing network of LETS and timebank communities by federating them and increasing liquidity among users, an idea that he unsuccessfully pitched to the European Union's Horizon 20/20 grant program. He would also like to find ways to use conventional "political money" as a way to improve investment, pensions, insurance, crowdfunding and P2P financing. "The conversation going forward should focus on, How can we support and grow local communities in a decentralized way to create their own money systems; and how can we work with formal money to help build those structures?

Another alternative currency project was described by Simon Sarazin, an information and communications technology engineer from Lille, France. Sarazin described uCoin, a project that seeks to implement a basic income through the use of cryptocurrency. uCoin, launched on October 1, 2015, differs significantly from Bitcoin in that it allows anyone to create a currency through an online platform, along with other members of a community. It also avoids the energy-intensive computer "mining" process used by Bitcoin.

The value of the uCoin currency is regulated by its relation to the total of the money already created. The design principles derive from the "relative theory of money," which attempts to determine "which rule of monetary creation should we adopt, and at which rhythm must monetary supply grow, in order to institute a system with Universal Dividends [i.e., a basic income]…."?[22] uCoin is among a number of new currencies that are being launched to address this question and aim to supply a basic income to all participants. Some of these others include Kiwicoin in New Zealand, Cubecoin, Strangecoin, the Worldwide Globals Organization and the Basic Income Project, LLC.[23]

Conaty noted that calls for democratic money systems like those being advanced by Mellor link state implementation of the new debt-free money to the pre-distribution of a form of basic income. As Mellor highlighted, banks create money "out of thin air" as loans and recover this money under contractual installments; as debts are repaid, the money created through loans is destroyed. Governments could reduce such debt-driven growth and the demand for loans by issuing a basic income to all citizens. Any unintended oversupply of income and inflation could be controlled by taxing the money back and then recycling this pool again as basic income in the next year. In this way, a new architecture of "commons money" solutions could combine economic democracy and bottom-up approaches as outlined by Slater and Sarazin, with top-down policy approaches of the sort advocated by Mellor.

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[22] http://vit.free.fr/TRM/en_US

[23] See Nathan Schneider, "The Cryptocurrency-Based Projects That Would Pay Everyone for Just Being Alive," *Vice*, May 29, 2015, available at http://www.vice.com/read/the-cryptocurrency-based-schemes-that-would-pay-everyone-just-for-being-alive-456

7. Crowdfunding for the Commons

Crowdfunding as a means to finance commons-based projects is another area of great potential. One of the most innovative pioneers in this field is Goteo, a Spain-based open-source platform that hosts crowdfunding and crowdsourcing of projects that advance commons principles. María Perulero, a member of Goteo team, said the project differs from standard crowdfunding sites in that it invites a larger public conversation about proposed projects to help clarify and improve them. Goteo also asks projects to supply detailed budgets, which help people identify specific needs for which people can volunteer their time.

For the past four years, Goteo has required that projects specify how they will contribute to the collective good, beyond any individual rewards to contributors. For example, a software project might release its code as free software, which makes the project more easily reproducible. But Perulero concedes that many commons projects, such as small ones with a local context, cannot easily devise specific collective returns.

Goteo takes pains to hold projects to their contract terms in publicly visible ways, said Perulero. "We track results both because of the contract and because we want to make projects accountable in front of their communities. Goteo has found that there are very few cases of people who do not deliver after a year," she reported. "Project leaders at least respond to the community to explain, 'We couldn't do x because of y.'" To date, Goteo has funded more than 400 projects, with a 60-70% success rate in meeting fundraising goal. This exceeds the conventional crowdfunding success rate of 40%. Goteo's average contribution is also higher – 50 euros vs. 35 euros. Goteo has more than 50,000 users and has raised more than 2 million euros since its founding in 2011. Encouraging as these numbers are, Perulero remains concerned that the standard metrics of profit and financial output are inadequate tools for assessing Goteo's social impact: "We need another language because we can't measure impact. We have to measure value of new things with a new barometer."

8. Enspiral and Commons-based Virtual Banking

Network-based platforms are spawning some very novel organizational structures that could host new types of collective self-provisioning and financing. One such network is Enspiral, a New Zealand-based (now international) network that describes itself as a non-hierarchical distributed network of entrepreneurs, professionals and hackers who are "using the tools of business and technology to make positive social change."

Many social ventures and collaborative tools are emerging out of Enspiral, such as the Loomio cooperative, which makes an open source app for collaborative decisionmaking. The Enspiral Foundation stewards the brand and social mission, and is a not-for-profit business collectively owned by the Enspiral members, who each hold a non-financial share representing their stake in group decision making. Enspiral ventures are supported by members who make voluntary contributions of their time, skills, love, and money, and use the Foundation as a vehicle for collaboration.

Alanna Krause, a member of Enspiral, gave a demonstration of how participatory budgeting and money flows work among the nearly 300 contributors in Enspiral, using software tools developed by the network.

Enspiral Services, a freelancer and contractor collective and the first and largest Enspiral company, uses an internal banking system called my.enspiral. When money comes in for work performed for external clients, a percentage (usually 20%, but variable as per the worker's choice) is contributed to Enspiral Services collective funds; the rest is put in the internal bank account of person who did the work. The money in an individual's Enspiral account is under their exclusive control; they can pay themselves, hire someone, buy equipment, etc. Besides the open allocation of money, the my.Enspiral system also lets anyone send money to anyone in the network, only worrying about taxes when money enters and leaves the internal system (because in reality, the funds are all sitting in one big bank account, being moved around virtually in the backend system).

In effect, the system functions as a kind of virtual banking system in the guise of a limited liability company, which provides a walled garden of autonomy and flexibility. The network, which plans to rename the system, now known as "my.Enspiral," is researching what it would take to make the software more useful and available to external groups as a standalone open source software application.

Collective funds are allocated using a transparent democratic process, known as Cobudget, another Enspiral tool. Participants in a Cobudget network have rights to allocate money in the collective budget in proportion to how much they contributed to it, and everyone can put forward funding proposals and get funded to do work for the collective as a whole. Fixed expenses, such as hiring a part time administrator, are decided by the group as a whole on Loomio, and subtracted from discretionary funds before they are submitted to the Cobudget process.

Some of the collective funds in Enspiral Services are allocated for distribution to the Enspiral Foundation, which similarly receives funds from other Enspiral Ventures, and runs its own Cobudget process to fund initiatives across the whole network. People solicit support from the network asking them to fund specific "buckets" of expenditures – a software project, a convening, specific business expenditures, or anything else. When one member wanted to bring Michel Bauwens to visit with Enspiral members in New Zealand, a bucket was established to cover the cost of airfare. People could choose to support or pass over such buckets, depending on their view of value for the network and the strategic alignment with the overall social mission. The bucket for Michel's visit was fully funded, and he visited Enspiral in New Zealand.

The Enspiral Foundation focuses on supporting network collaboration through hosting online processes like Cobudgeting and Loomio decisionmaking, and offline spaces such as the Enspiral Coworking Space and twice yearly in-person retreats. For the last two years, the network has set an annual strategy through a large-scale collective-facilitated process; this strategy guides what gets funded and what network members focus on. The 2015 goals are: 1) Support Enspiral ventures to succeed. 2) Tell the Enspiral story and share learning with the world. 3) Strengthen and evolve core Enspiral structures. 4) Power up the community through internal learning. Krause said, "It's very empowering to have a direct say about where the money you contribute goes. Through co-budgeting, people feel more like investors in building the Enspiral commons."

So is it all about money? Krause says no. "You can't account for everything; it's too complex. Money is easy to count, but trust is different." One counterintuitive result of the co-budgeting process, she said, is that it stops people from volunteering too much and burning out. "A budget gives you social validation and a way to match people's interests and output to what the system can fairly support."

The current internal financial transfers through my.Enspiral are mostly automated, but not entirely. They currently require semi-manual reconciliation with conventional banking systems. Krause said that Enspiral wants to improve the project and make it more widely usable, which will require resources they've yet to acquire. Both venture capital and philanthropic grants have downsides for funding mission-driven open source software development, making it important to identify the right kind of capital.

Cobudgeting, collaborative decision-making, and freeing the flows of information and money are essential to Enspiral's existence. "The Enspiral network needs this," said Krause. "There are no hierarchies or bosses; we have no CEO because we distribute leadership functions among the network." Krause has begun writing on the topic of "Bossless Leadership," including an article called "How to Grow Distributed Leadership."[24] After five years, some Enspiral ventures have failed, but thanks to robust trust relationships and a focus on collaborative processes, the network itself has not experienced an existential crisis.

Krause said in a recent post that while my.Enspiral is often used as an omnibus administrative tool, "its destiny is to be a very powerful engine for an alternative economy, which is in turn the engine for an alternative society." She would like to see the platform evolve to handle peer-to-peer credit lines, crowdlending, basic income, and provide alternatives to taxes and interest. She said, "Can we talk about how mind-blowing it is that we have a frictionless bank at our fingertips and we don't even realize it? What we have with my.enspiral is a bank for a 'microcosm economy' protected from the outside world by the walled garden of a limited liability corporation –

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[24] https://medium.com/enspiral-tales/how-to-grow-distributed-leadership-7f6b25f0361c#.koncped8h

an astounding bubble of autonomy, transparency and flexibility. It's the heart of our opportunity to create the society we want to live in right now, within the wider messed-up society we can't change."

In response to Krause's presentation, Raymond Aitken was struck by the fact that "We don't really know what possibilities will emerge there. But it is clear that the driving forces are information technology and new forms of social organization. They are opening up an evolutionary space that we didn't have before, in the commons. As we resist the incumbents, which are attempting to lock down the commons that it controls, we forget that we even had such mutualized spaces for human development and civilization!"

9. New Organizational Forms to Enable "Cooperative Accumulation"

Robin Murray and Cliff Rosenthal noted that some organizational forms are showing great promise in fostering new types of "cooperative accumulation" – i.e., the collective accumulation of financial resources for mutual benefit. One notable example is the "solidarity economy" and multi-stakeholder cooperative models, especially as developed in Italy, Quebec, and more recently a growing interest along with commons projects in New York City (Solidarity NYC). Multi-stakeholder coops have the scope to bring together multiple stakeholders – the providers and users of services, other family members, community volunteers, civic organizations – into a single enterprise, often to provide social services in more humane, socially responsive ways. One longstanding version of this model are the ecological Seikatsu co-operatives in Japan that promote "earth care" and "people care" as their primary mission.

Such coops are very "outward-looking and oriented to public good," Rosenthal said, adding that community development credit unions are not just focused on their members as consumers but as community development participants. He suggested that they could be the basis for new types of commoning finance, as a number of community development credit unions have proven through the operation of affiliate structures that can be run on a nonprofit basis, providing, for example, advice about debt, money management, taxes, business strategy and household energy savings. The Neighborhood Trust Federal Credit Union on Manhattan is a good example that provides lower cost lending to low and moderate income members but also overcomes risk by running linked non-profit money advice and budgeting services that help members get out of debt. Conaty described similar integrated community development finance services developed in the UK, inspired by the success of the Neighborhood Trust Federal Credit Union, Latino Community Credit Union and Self-Help Credit Union in the U.S.

Robin Murray gave some successful examples of similar community development practice from his work since the late 1980s to set up and develop Twin Trading for Fair Trade in the UK, a cooperative to help smallholder farm producers in the global South. The project initially secured £750,000 from the state for equity capital to get started. Today the turnover is £35 million annually. This highlights how vitally important seed capital and core equity are as foundations for co-operatives but also how public sector partnership can be utilized. Profits from Twin Trading are put into a nonprofit affiliate company to seed fund expansion and the development of new farmer co-operatives in developing countries. Some of the Twin Trading companies like Cafe Direct have raised crowdequity funding (more than a decade before this term was invented) through community share issues that secured £4 million. Murray emphasized that "co-operative accumulation" strategies like this are essential. Unfortunately, not enough co-operatives think like this, he said – but this was the historic way that co-operatives in Europe built and grew the equity they required, year after year, to build solid foundations that could seed new offshoots. Commoners could learn important lessons from the success of Fair Trade's co-operative businesses and the ability of the co-operative movement as a movement to attract equitable capital, a dynamic replicated in other countries.

In this vein, Jason Nardi noted the Solidarity Economy's invention of new types of cooperative value-chains for provisioning. He described efforts by the Social and Solidarity Economy to shift economic resources from for-profit markets into solidarity economy frameworks through "buying clubs" of 40-50 families who come together to buy in bulk to meet their self-identified needs. In Italy, these groups began as community-supported agriculture (CSAs) for local food and are known as GAS (Gruppi di Acquisto Solidale). GAS groups look for local ethical producer groups to meet their needs and then assist the producers in developing pre-financing orders, sharing the risk as well as helping to plan production throughout the year with consistent orders. Many GAS also practice PGSs, or "Participatory Guarantee Systems," visiting the producers and creating trust relationships based on transparency and shared values. GAS groups promote these ideas by organizing local and social promotional events to serve "Happy chicken" (organically produced and Mafia-free), organic oranges from Sicily, fair-trade wine, etc. Such models are now emerging as a kind of Fair Trade in the North. They also resemble the Seikatsu co-operatives in Japan for social care and CSAs for agriculture. (Indeed, Seikatsu in 1965 emerged as the earliest pioneer of the CSA model.)

The regional Italian networks comprising 1,500 GAS groups are expanding nationally. Once focused on food, clothing and other products, these projects are gradually moving toward providing a wider range of ethically sourced services like energy, insurance and even electronics. Generally most of these self-provisioning projects work through small distribution networks at local levels, as an alternative to mass distribution centers like supermarkets. However, in some regions Fair Trade shops have emerged and are becoming Solidarity Economy hubs for the purchase of a growing range of products and services.

One exemplary experiment for remaking the production system is the "Made in No" cooperative (Made in Novara, Italy), a consortium producing organic fair trade cotton underwear through cooperation with the GAS-solidarity economy network, which "co-produces" the underwear through co-designing and crowdfunding it.[25] The innovation is that the demand is based on the collective needs of organized consumer groups, who decide together what products and models to produce, and how to invest in this new enterprise. This project is helping rebuild the region's once-extensive local capacities for making artisanal clothing that had collapsed because of de-localization of production. The project uses not-for-profit organizations run as co-operative businesses to participate in markets while striving to have a social impact beyond the balance sheet.

At present, however, only 20% of these initiatives use solidarity or co-operative finance; the rest use finance from conventional banks. Nardi pointed out that this is a weakness in sourcing startup funds for GAS groups. Most local groups do not want to formalize themselves, and yet it is clear that the 20 online group-buying platforms that now exist could be consolidated. But since these platforms range from the sophisticated to the very simple, expanding the groups via a shared platform is a difficult challenge. Nardi pointed to the importance of choosing an appropriate legal structure that is able to hold equity because this is a prerequisite for overcoming the obstacles faced in sourcing the solidarity finance and co-operative equity capital, especially for funding a shared platform that could assist expansion. He added that any transition to a more integrated and federated approach will also require the recruitment of specialized workers to assist the management of workflows and production.

In his presentation, Pat Conaty of Co-operatives UK noted that the very goal of "cooperative accumulation" speaks to a taboo question addressed by Karl Polanyi in his famous book *The Great Transformation* – Who owns the land, the money system and value produced by labor? Drawing upon material from his forthcoming book *Democratic Money and Co-operative Capital,* Conaty recounted many examples from social history that could be adapted to meet contemporary social-finance needs. He emphasized the historic and beneficial constraints (moral, religious and legal) against the destructive force of debt and the charging of interest. Usury laws held sway in most countries until the 1970s and 1980s when financial deregulation demanded by neoliberal policies eliminated interest rate caps and created almost unlimited rates of interest in the UK today.[26] This rolling back of usury legislation has spread to other countries.

In promoting cooperative accumulation, Conaty cited the role that co-operatives, community land trusts, the JAK banks in Sweden and Denmark, and public banks such as KfW

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[25] http://tessilesolidale.faircoop.it

[26] Conaty pointed to the Rule of 72, a bankers' rule of thumb for calculating the time required to flip and thereby double the money repayable on a loan at different rates of compound interest. The Rule of 72 calculation works out the doubling time by dividing the interest rate charged into 72. So a loan at 1% would take a lifetime to double, while a loan at 36% would double in debt value in just two years. Today in the UK, some states of the US and other countries pawnbroker loans secured to goods charge over 70% for credit; British payday lenders with legal shop outlets charge rates of about 5,000%. Usury has become rife, driven in part by private equity groups investments, which of course were also driving forces in the sub-prime mortgages meltdown that triggered the 2008 global banking crisis.

(with "cheap money" for renewable energy and energy insulation investment) in Germany. There are also many types of community development finance banks (in the USA, UK and Brazil, for example), and infrastructure banks (for rural co-operative electrification, housing) that could be emulated. Finally, there are alternative money schemes such as demurrage money (e.g., the Chiemgauer negative-interest currency launched in Bavaria, Germany, in 2003); mutual credit like the WIR co-operative bank in Switzerland providing co-operative money as low-cost working capital for one in four small businesses nationally; the state creation of "100% money" ("quantitative easing for the people"); and more recently, the blockchain ledger and other forms of digital currency that can be used by communities to retain the value they generate.

Conaty also cited important new sources of co-operative capital for local investment drawn from ordinary people, especially since 2008.[27] By the end of 2014 more than 500 community co-ops in the UK had successfully raised co-operative capital locally and regionally through community share issues. This approach is based on the success of Cafe Direct and the UK Fair Trade movement, which raised co-operative capital through equity shares issued to the public. The share issues of capital raised varies, but spans a spectrum from £50,000 to over £1 million, with an average of about £190,000. This old co-operative methodology has been successfully revived to support a full range of common needs, including the community rescue of rural shops facing closure, community ownership of local pubs, the ownership by local fans of football clubs, community energy schemes for wind, hydro and solar power, community supported agriculture, cultural and heritage projects and local workspace development. Through an international partnership, the UK's co-op practice has been introduced successfully into western Canada through a program "Unleashing Local Capital," developed by the Alberta Community & Capital Association.[28]

In Italy, Professor Christian Iaione is experimenting with new types of cooperative accumulation and development that can be achieved through urban commons. Iaione is a law professor working with LabGov, a research partnership between the LUISS law school in Rome and Fordham Law School in New York City.[29] With LabGov's help, the City of Bologna, Italy, is currently developing a set of policies that aim to federate and coordinate various types of public, private and social forces in the city. To date, the "Commoning Is Bologna" initiative has focused on treating public squares, abandoned buildings, green spaces and other urban resources as commons. In Elinor Ostrom's vocabulary, the Bologna initiative is attempting to develop collaborative and polycentric governance tools to support commoning at the local/urban level.

To date, LabGov has synthesized a prototype protocol in Italy that has led to several good results. The most prominent of these may be the Bologna Regulation, the municipal law that

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[27] https://www.co-operativememberevents.coop/documentControl/20131129155-sharing-prosperity-report.pdf
[28] http://acca.coop/unleashing/
[29] http://www.labgov.it

authorizes public/social partnerships to address various neighborhood and civic needs.[30] LabGov has also developed the Mantua local collaborative governance pact and the Battipaglia urban collaborative master plan. After a major conference on urban commons in Bologna in early November 2015,[31] LabGov hopes to experiment with urban commoning initiatives in other European cities and in New York City.

Iaione has identified some basic design principles that a commons-oriented bank or financial institution must adopt to support commoning projects:

- Develop a new economic agent beyond the *homo economicus* ideal as the basis for credit and other relationships;
- Move away from short-term opportunism to longer-term perspectives;
- Adopt a local dimension to the project;
- Take a diachronic approach that imagines an evolutionary process of development;
- Promote the scaling of isolated projects through a distributed governance architecture;
- Encourage the pooling of economic experiments by making variations in different settings visible to each other, which in turn will help synthesize a generalizable archetype.
- Design a protocol for experimentation, redesign and iteration.

Seoul and Barcelona are two other cities that are actively and consciously attempting to develop new social vehicles for urban commoning and the solidarity economy. They are pursuing changes in city bureaucracies, tech infrastructures, and forms of social (self-)organization, among other innovations. It was pointed out, however, that the culture and history of a city are critical factors to the success of urban commoning. Jason Nardi noted that it would be politically and culturally impossible to replicate the Bologna commoning models in the city of Florence.

Can These Finance Options Be Integrated Into One Narrative?

There is a temptation to regard one or another of the commons-financing strategies outlined in Part III as a panacea. One faction may see public banks as the most meaningful approach while another sees complementary currencies as most promising, and yet another sees the blockchain or community development finance institutions as most worthy of attention. Still others wish to devote their energies to the prevailing neoliberal money system through politics, campaigning and policy advocacy without attention to DIY finance projects, which frequently toil away in isolation disconnected from policy and legal reform that could help them succeed.

This fragmentation of energies may stem from an implicit understanding of money and financial institutions as *things* when in fact they are social systems, which means that at the end of the

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[30] http://www.comune.bologna.it/media/files/bolognaregulation.pdf
[31] http://www.labgov.it/urbancommons

day they can exist only in complex, localized, hybrid forms. Any DIY finance system must be based on communities of practice because no particular institutional form or legal regime is going to guarantee that progressive ends will result. As Christophe Guene noted in his presentation on the social regulation of banking, all sorts of public and co-operative finance solutions have lost their way over the years, or suffered from outright corruption or decline.

He added that regulation can either help or hinder the finding of solutions. For example, the Community Reinvestment Act in the U.S. has provided critical funding to support the emergence and growth of community development finance institutions. On the other hand, banking regulations in recent decades, in response to banking crises (Basel 1, Basel 2 and Basel 3 set by the Bank for International Settlements in Switzerland – the central bank for central bankers) have put very expensive and costly operational burdens on smaller credit unions, social banks and co-operative banks, such as minimum equity capital. As it turns out, this largely works out to the advantage of large U.S. banks that aggressively dominate the sector through their lobbying influence on shaping federal policy. The same is the case in Italy and other countries, as Peru Sasia pointed out. In Italy the Renzi government is using tougher bank regulations and capital requirement to compel the co-operative banks to privatize. So alternative bank and credit institutions cannot ignore regulation, policy advocacy and development. Without an active presence here, the bigger banks will have an unchallenged power to limit the scope of alternative banking.

A key insight of this discussion was that no single institutional form or legal regime is going to be a magic bullet. But rather than recoil at the multitude of options and focal points as a confusing potpourri, or just choose one or two as strategic priorities, it may be more useful to see the many options presented and considered as an extended family: a loosely connected constellation of systems, each of which seeks to enhance democratic control of credit and money. This ambition to build and expand a commons-based financial system requires a pluralistic agenda for many reasons. First, experimentation and innovation are absolutely essential because outcomes cannot be known in advance; hence the need for diverse initiatives. Second, in a classic commons fashion, any solution must be organically integrated with the larger set of cultural, political and economic variables. There is no single, universal template for effecting change; there is only an armamentarium of promising, complementary options.

IV. Strategies for Moving Forward

From the extensive discussions of the Deep Dive, participants identified five key strategies for moving forward. In breakout groups, they developed a richer sense of what these strategies might entail.

1. Democratize Money

Building on her presentation, Professor Mary Mellor, the British monetary expert, believes that commoners should make it a priority to re-capture the money-creation system for public purposes. She noted that this challenge is not about changing fiat money, but about how to replace debt-based money. What is crucial is reclaiming control of the money supply from private commercial banks, whose control over currency produces waste, inequality, and boom-and-bust cycles. A finance system that depends upon compound interest and thus ceaseless growth is based on an irresolvable contradiction, said Mellor, because it essentially requires an unsustainable expansion of market exploitation on an ecologically delicate planet of finite resources. It also fails to channel credit to socially and ecologically important purposes. "Banks do not recirculate money to where it is needed," said Mellor; "they just accumulate it. That is the cause of the crisis."

Seven years after the 2008 financial meltdown, it is now clear that introducing interest-free public money to serve public needs is both essential and feasible. In the U.K., the rising popularity of Labour Party leader Jeremy Corbyn and his advocacy of "people's quantitative easing" may open a window of opportunity to push for the new systems of public money there. The key theme of such a campaign: "Money shouldn't be created from public sources to rescue banks, but to serve the public. We must reclaim the money system for public purposes," said Mellor. Iceland is currently considering precisely this transformation, as set out in a 2015 government report commissioned to investigate national monetary reform and that argues for democratizing money creation.[32]

2. Get Beyond Money (As We Know It)

A recurring point of contention in the Deep Dive was whether money is inherently hostile to commoning. This point of dispute may stem from misunderstandings, or perhaps from different notions of what constitutes "the economy." Some commoners work within the register of the existing polity and its premises, seeking to improve social outcomes within the workings of established political institutions and models of the economy. Others regard the logic of market relations and equivalent exchange, as fostered by money, as a serious constraint. This system

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[32] http://www.forsaetisraduneyti.is/media/Skyrslur/monetary-reform.pdf

privileges that which can be valued by money, neglecting intrinsic personal need and rewards, and requiring direct *quid pro quos* as the basis of social relationships. In this sense, money as we know it tends to be inherently exclusionary.

A commons, by contrast, is a complex social system based on *indirect* social reciprocity. An individual's contribution is not linked with a direct exchange of value with another, but rather on fair-share contributions to the larger collective that provide less quantifiable (and often unmeasurable) benefits over longer periods of time and to the community. The idea of going "beyond money," therefore, means going beyond market exchange and its logic of equivalent exchange – and even more generally, going beyond the direct coupling of giving and taking. At one time money may have been mussels, and tomorrow it may be Bitcoin, said Silke Helfrich, but the point is to try to transcend the iron logic of conventional money and to foster commoning. This may first require a shared understanding of the commons and "the economy."

A clear point of agreement for any new type of money is its role in providing a basic income for everyone. Many participants also see a negative interest rate as potentially very useful in helping communities meet their needs, especially in circumstances in which conventional money is in short supply and where an emergency currency could address this. The existing money system could be turned on its head, eliminating interest by making the value of money depreciate over time ("demurrage") to speed up the local circulation of money. This was proposed by Silvio Gesell a century ago and as demonstrated in the regional Worgl experiment in Austria in during the Great Depression.[33] However, it would be important in the design of any such money that it include some "provisioning predistribution" as a form of social credit or basic income.

The idea of "beyond money" has another meaning – that money will be pluralistic. We should welcome different types of money in different contexts as ways to give groups of people greater control over the fruits of their commoning. These systems could be local LETS currencies, timebanks, mutual credit systems, gift economies, Japanese care-work credits/Fureai kippu or blockchain-based currencies, among others.

Can we articulate some basic, commons-friendly principles that ought to be designed into any new money system? Pat Conaty suggested that the first principle should be Hippocratic, "to do no harm." This would include anti-usury rules and an ethics of "people care" and "earth care." But beyond that, money-managed-as-a-commons should abide by the seven principles of cooperative

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[33] From 1932 to 1933, the town of Worgl, Austria, instituted its own local currency whose value declined over time to deal with unemployment over 30% among its population of 5,000 people. The money was put into circulation as wages, with half of it intended to keep public service workers on the job. The currency helped end unemployment within 13 or 14 months, financed the repair of roads, bridges and housing, and the planting of forests. The Central Bank of Austria banned the experiment in September 1933. The negative interest rate charged for the Worgl experiment was 12% annually or 1% a month. Gesell argued that as the demurrage system became established, such higher rates could be reduced to about 5% to cover the administration costs.

economics[34] and seven resilience principles of ecological economics.[35] The integration of these social economic and green economic principles can help us develop a new social and ecological economics not focused on growth but on securing co-operative commonwealth.[36]

3. Back to the Future: Blending the Old and the New

Many worthy efforts to transform the money system seem to be kept in different mental boxes based on different generational perspectives today. An older generation associated with the labor movement, socialism, left politics and cooperatives tends to be focused on making existing finance models and policies more enlightened within the framework of the existing system – while a younger generation raised on digital technologies and the Internet has some very different perspectives about what is feasible and attractive. But this simple division is misleading. Many recently revived local money systems were inspired by old, nearly forgotten co-operative approaches like Silvio Gesell's negative interest experiments with variable "speed money" and associated ideas of mutual credit. This suggests that "what goes around, comes around," and that the historical experiences and wisdom of the older co-operative models can be blended with "the new" to produce some new and powerful strategic approaches.

The Enspiral presentation by Alanna Krause made the generational divide vivid because it offered a tantalizing glimpse into the exciting new possibilities that tech platforms might open up. Similarly, the Bologna Regulation and its spinoffs are seen as innovative sites for commons-based civic innovation. In a sense, such initiatives are building entirely new ecosystems for change and new circuits of creative transformation. They leap beyond conventional reform agendas of reduced-interest loans and discounted products and services, for example, which credit unions and social banks tend to focus on. While there are obvious cultural divides separating "old," ethical banking and "new" money and peer-to-peer finance agendas, there are also synergies that might be unleashed if tech-oriented schools of finance innovation were to reinvigorate proven historical models (co-operatives, community land trusts, negative-interest currency experiments) with new design twists.

Robin Murray suggested that it would be helpful to articulate the design principles that should guide new projects that blend the old and the new. He said we must reclaim the best of the old and figure out how to break the link between money and its intrinsic propensity to expand as debt. We also need to challenge the "Fordist concept" of scaling finance systems, and instead develop a new conceptualization based on biological ideas such as limited growth and "horizontal" diffusion that spreads like a river of social and economic change..

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[34] https://www.ncba.coop/7-cooperative-principles

[35] http://makewealthhistory.org/2013/08/21/7-principles-of-resilience

[36] Mike Lewis and Pat Conaty (2012) *The Resilience Imperative - Cooperative Transitions to a Steady-State Economy,* New Society Publishers.

Christian Iaione agreed and raised the question – "Where's the bazooka?" – as an apt description of the challenge: What new organizational or financial forms could be so potent and replicable that they could transform the landscape? Inspired by Mary Mellor's arguments for reclaiming the public purposes of money, Iaione wondered if the City of Bologna might provide a venue for some experimentation. Sasia, Brown and others agreed that the state and cities may be able to forge common cause in reintroducing public banks and other social and public partnerships.

4. Engineer Systems for Co-operative Accumulation

Many participants believe that an essential strategy is to devise new organizational forms (not just financial systems) that have the capacity to enable "cooperative accumulation" – i.e., to accumulate financial reserves or assets that can be mutualized and used to sustain the commons. This is also linked to the need for co-operative forms of equity, a problem that came up again and again in discussion.

Robin Murray gave the example of the nineteenth century model of co-operative finance in the UK. The ubiquitously successful Rochdale co-operative model charged market prices to its members, and distributed the resulting profit to its members as a dividend. Many members left the dividend in their co-op as savings, and these savings together with small loans from members financed the expansion of new services. Many of the 1,500 plus co-ops became in effect local banks. They deposited any excess funds into the network's wholesale society (the CWS), which in turn financed the development of over 100 factories. As a result the growth of one of the largest enterprises in the world by the 1880s was entirely financed by its members.

Murray and Cliff Rosenthal, the American co-operative finance leader, stressed that any new organizational form should learn from the self-financing success of co-operative forms of accumulation, and especially from the fair trade innovations developed by Twin Trading and its affiliate Cafe Direct in the UK; the mutual aid success of US credit unions; and the community shares movement in the UK and Canada mentioned above. The community share issues are akin to crowd funding. These co-operative financing methods alongside other co-operative savings institutions like credit unions have raised significant sums of capital for democratically owned projects.

Other new models cited by participants include the Goteo Foundation, the crowdfunding project, which uses its saved surpluses to pay for larger, deferred expenses. But the real challenge is to build a base of resources, said Oscar Kjellberg, the former JAK banker. He suggested that perhaps the Islamic model of finance, which is based on fees but eschews interest, may be a worthy model. Bauwens stressed that when organizations think of cooperative accumulation, they tend to think of financial reserves; but in our era of climate crisis, it is also appropriate to think in terms of shared physical resources such as forests, arable fields and housing, and infrastructure such as currency systems like LETS, uCoin and local public banks.

The discussion in Part III, Section 9 above described some of the novel organizational vehicles that might be used to save costs and share functions for many affiliated institutions. These include platform-based networks-as-guilds like Enspiral, multistakeholder cooperatives and urban commons that federate public, private and social forces. Rosenthal stressed the need to develop shared platforms and back-office services. He pointed out that it is not necessary for co-operative finance institutions and money systems to have their own separate infrastructure and staff.

5. Macro-map the New Monetary System as a Commons

An abiding challenge is how to communicate a new, integrated vision of what the monetary system should look like. One breakout group led by Raymond Aitken, an independent economic change-maker and writer, tried to "macro-map" what a commons-compliant monetary system might look like. For the purposes of the macro-map, Aitken insisted that we must first differentiate between the "Real Economy" and the "Unreal Economy" of parasitic "rentier-finance." The Real Economy is comprised of two interdependent, complementary sectors: 1) the generative surplus-producing "commercial economy" that initially meets the basic material needs of people and society, with the remaining net surplus being transferred (by taxation, gift or other means) to: 2) the regenerative nurturing "social economy" that meets higher-level human needs (including the need to be of service to others). This social economy includes education, research and development, protection of human rights (internal by police, external by military), healthcare, ecological restoration, and other forms of social economy care/nurturing work.

Unfortunately, said Aitken, many people conflate the activities of the "Unreal Economy" of rentier-finance, with those of the "Real Economy" – of genuine economic production and exchange of human-added value. The realm of rentier-finance is based on the privatization and commodification of the natural and cultural factors of production, including land, money as consumption rights, money as production rights (capital), and human ability/knowledge applied as productive work. As Polanyi pointed out in his book *The Great Transformation*, these factors of production must not themselves enter into economic exchange (i.e., be bought and sold within the market). They can only be upheld as conditional rights (conditional to socially equitable and ecologically sustainable use). The "rights of use" of these commonwealth factors of production are conveniently represented by legal fictions known as financial instruments. That is why the value of financial instruments is "fictitious" (i.e., it is only representative and informational) and not "real," which corresponds to the Marxist notion of "fictitious capital." (For an overview of "The Mutant-hybrid Economy," see Figure 1 on page 5. For a more detailed overview, see Figure 2 below.)

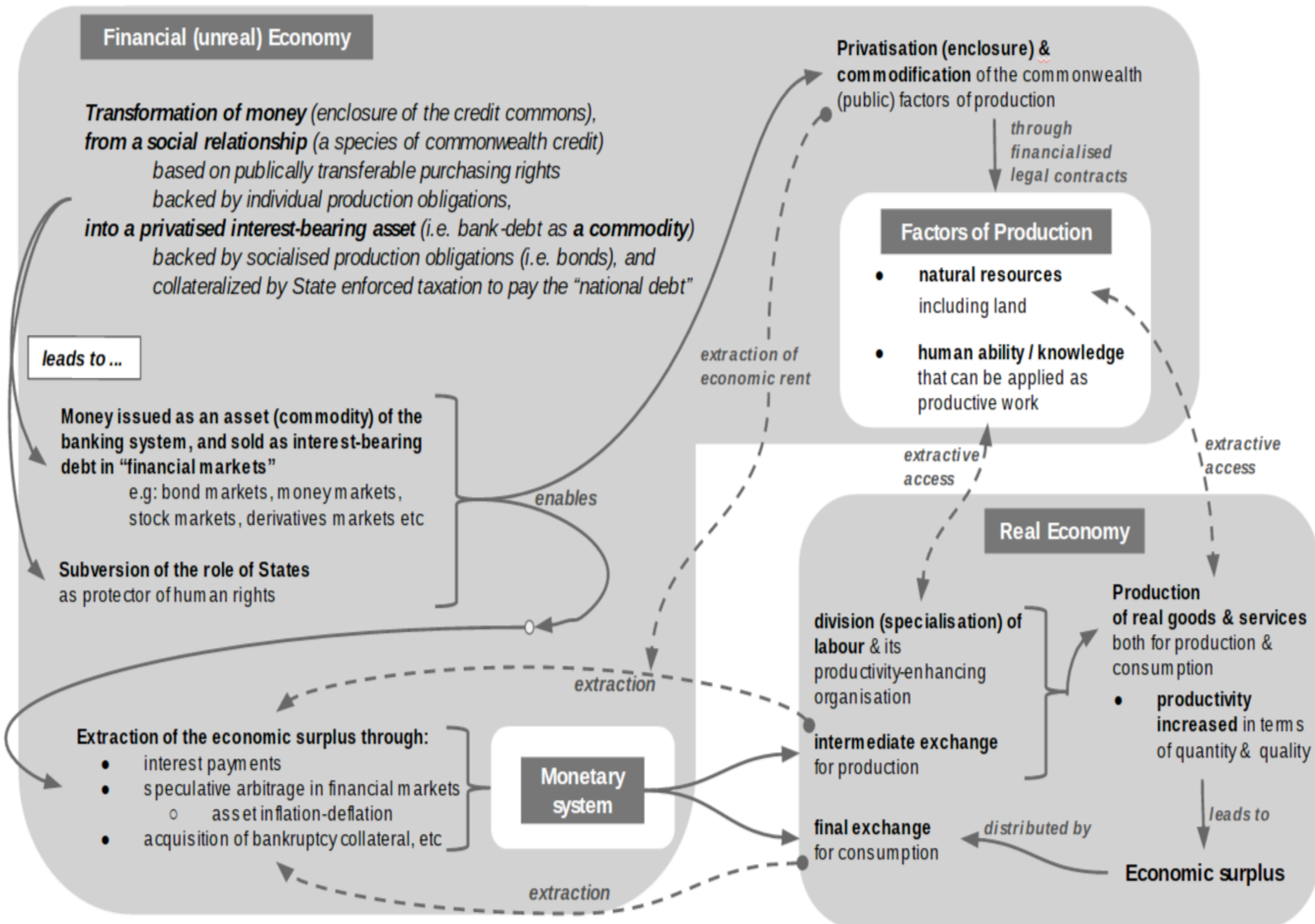

Figure 2: A detailed overview of the predatory parasitism of the unreal Financial Economy on the Real Economy.

The Real Economy can only regain its social and ecological integrity when it is freed from the speculative arbitrage of the Unreal Economy, which is comprised of manipulated/rigged markets for the buying and selling of financial instruments and interest-bearing debt as money. This means money must be decommodified and reinstated as a social relationship based on purchasing rights, with a reciprocal counterparty obligation of future production. This will mean a radically different architecture for the international monetary system, and will overturn the axiomatic assertion of the present banking system, that central bank base money is "the final means of settlement." Instead, real economy goods and services must be reinstated as the final means of settling monetized credit obligations. This would reposition real producers as the user and master of money, and not as is the case today, as the used slave of a "counterfeit" money regime. Such a reversal would entail the parallel liberation of the other commonwealth factors of production, both natural (including land) and cultural (including intellectual capital), which likewise must be taken out of the market economy and instead made available in accordance with use rights that reconcile and enhance the true interests of both the individual and of the common good.

A commons-friendly economy would establish some very different relationships between finance and the Real Economy, as illustrated in Figure 3 below. First, it would not sanction a bloated parallel financial economy that preys upon the Real Economy and common wealth. In order to respect the boundaries and surpluses of the Real Economy, a commons-compliant monetary system would look to new forms of nonhierarchical enterprise to coordinate and amplify human capabilities. These institutions would not depend upon commodifying human labor and nature, or upon the parasitic extraction of the surplus value that people produce. But this would require new types of finance that are oriented to basic human needs (not growth and limitless wants) and to educational and cultural development and ecosystem regeneration.

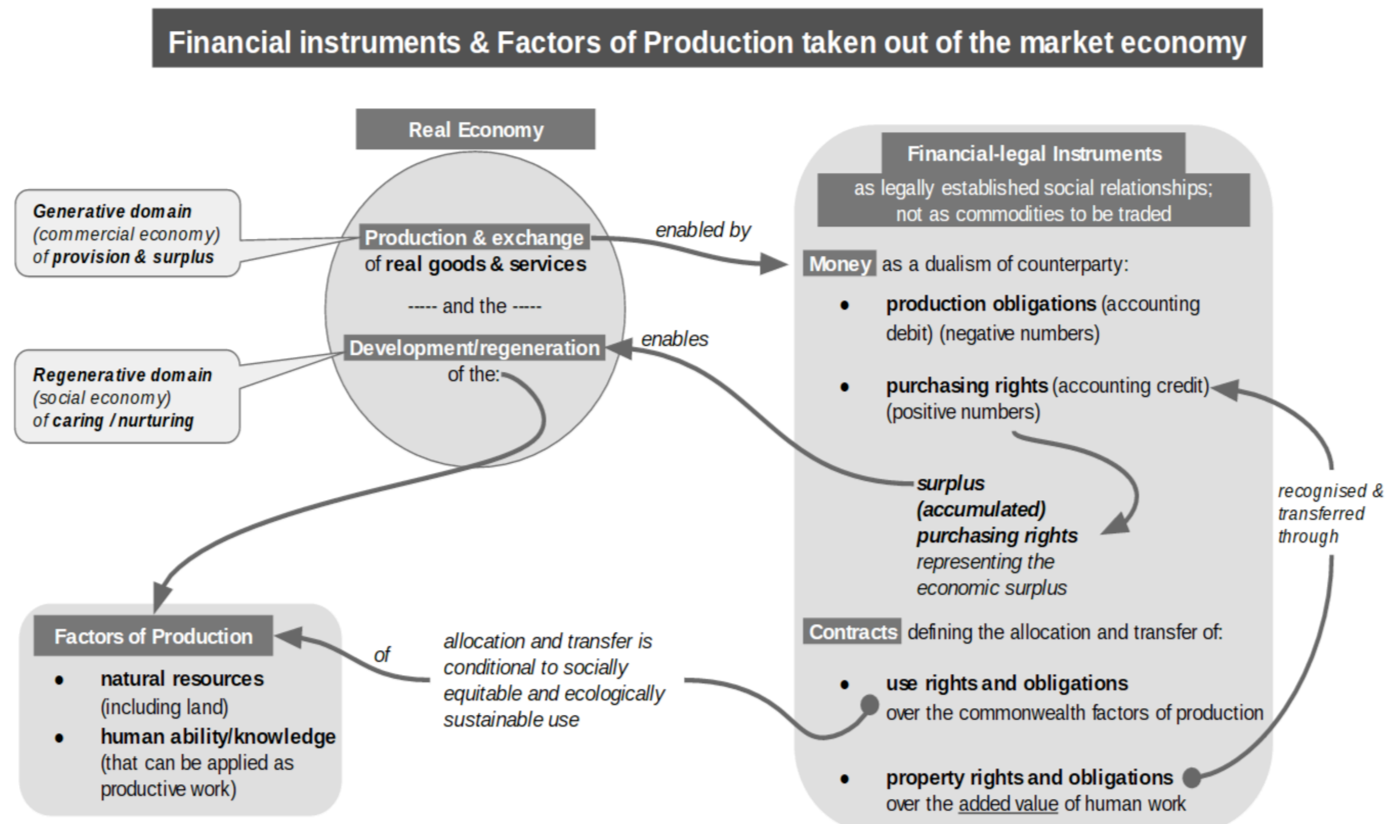

Figure 3: An overview of what a healthy Real Economy looks like when financial instruments and the commonwealth factors of production are taken out of the market.

A mutually respectful interplay between finance systems and commons would be possible only if the sources of finance were owned and controlled by commoners. Such finance systems (especially those described in Part III) would eliminate the incentives and opportunities for systemic, rentier-style extraction of value from commons and the Real Economy. Surplus value would not be siphoned away for private capital accumulation, but re-circulated toward social and ecological needs, as guided by new institutions of participatory democracy. Moreover, the interest-driven lending would neutralize the growth imperative and social disruptions caused by compound interest. Boom-and-bust cycles could also be avoided through a structural separation of depository banking and lending, and any excess liquidity in the economy would be taxed and used to support the regenerative economy. Banking would more closely resemble a public service than a "great vampire squid wrapped around the face of humanity," as Goldman Sachs was famously described by journalist Matt Taibbi. Finally, a public service model of banking would be far more effective for the support not only of the social and solidarity economy, but of small, medium and family-owned firms that are the bedrock of the real economy and so often starved of the investment capital they need to survive.

Overarching Themes and Tensions

John Restakis, the Canadian co-operative leader, provided a brief interpretive summary of the challenges and tensions in the many perspectives presented at the workshop. First, he noted that "social control over the creation of money has been a key focus of our discussion. Why? Because we assume that control will yield positive social benefits. This is the start of changing the economic paradigm. But what is the nature of this control? How is it designed? Who does it? Etc. These are the questions we must address."

Restakis pointed out that one tension is whether to focus on macro-money systems or local commons; the two are rarely discussed in tandem. This points to a core question: "If we're going to support a commons-based economy, is it possible to do that within the current hyper-capitalist neoliberal system? Is it possible to think about the expansion and emergence of the commons as a new paradigm without macro-level changes?" he asked. "This applies not just to commons, but also to cooperatives and other collective forms."

Another way of stating this question is: Do we wish to focus on macro-level change through government policy and political institutions, or do we want to pursue micro-level change through independent forms of cooperative money? Do we want to fight for better services within existing policy structures, or to build systems of self-provisioned money that we manage ourselves? This framing may be a false dichotomy, but it does describe the prevailing either/or mentality in debate about financial reform. This suggests that the real challenge may be in finding bridges between the macro- and micro-level changes required. For example, can we help local systems evolve into larger and more significant macro-forces, or can we use the social regulation of banking to unleash progressive change at both macro- and micro-levels?

The either/or dualism of reform dialogue is difficult to overcome because conventional finance and markets tend to exercise their own overwhelming coercive power. Even modest interventions with The System as it exists can result in a co-optation of a project's original values and intentions. Alternative finance is always vulnerable to the prevailing logic of credit and markets. One participant noted that even the public Bank of North Dakota, for example, has ended up supporting the rentier-finance economy by financing new roads needed to support hydro-fracking in the state. The recurring question, then, is how to intervene in conventional finance systems in ways that break the logic of the rentier-finance system and move toward and incentivize commoning.

Restakis noted that another tension that surfaced in discussions is whether to create capital for commons within the context of existing markets, or rather to develop other sources of revenue to support commons so they can insulate themselves from the mainstream economy. An important unresolved question is whether markets can be socialized and controlled. Is it appropriate to regard commons as a kind of "social market" based on sociality and mutuality? If so, how should capital be allowed to operate in such a system? Or is the most distinguishing feature of a commons its insulation from market norms and the *indirect reciprocity* among its members (which avoids the direct equivalent exchange of markets)?

It's unclear what the capital needs of many commons truly are, and how to define them. For example, a community of free software or open design collaborators constitutes a productive social ecosystem without exclusive marketable products or collateral. What are the finance needs of such an ecosystem? The needs will certainly differ from those of commoners who are geographically proximate and managing depletable natural resources. Such examples suggest that we need to have a richer taxonomy of commons and a deeper analysis of how "social markets" may relate to commons systems.

The workshop discussion raised other questions: How can commons expand without access to traditional institutions of finance? Is that possible without reframing and redesigning financial institutions? There are also questions about the proper role of the state with respect to the social control of capital. For example, should banks be public institutions, and what are the dangers and risks associated with such systems? Should this role – providing credit for social and ecological needs – instead be delegated to civil society, or to a partnership between state and civil society groups having broad stakeholder rights? Restakis and Michel Bauwens have proposed the idea of the "Partner State" in which the state consciously seeks to rebalance and reorganize relationships between the state and civil society. The state would not just nationalize banks for public purposes, for example, or foster local money systems such as complementary currencies. It would pursue a third option of reimagining the very role of the state with respect to major social institutions.

Next Steps

Beyond the general strategies proposed above, workshop participants agreed that this proto-movement for transformational finance needs to take some action steps. Many ideas were proposed, ranging from the general to the specific. Here is a distillation:

Theoretical and conceptual research. It would be helpful to have deeper theoretical reflections on the power of money to be destructive of human relationships. Also, to rigorously identify ways to decommodify the three factors of production and "fictitious commodities" identified by Karl Polanyi – labor, land and the money system.

Policy development and outreach. While some of the ideas outlined in this report have modest support, many others – especially new proposals – have not been well-developed as policy proposals nor popularized among activists, policy advocates or the general public. For example, the policy interventions for "quantitative easing for people," as described by Mary Mellor, could have a greater real-world impact, especially with the rise of Jeremy Corbyn as the leader of the UK Labour Party. Similarly, the policy framework as described in the Commons Transition Plan to support peer production[37] could be influential if given greater support. Other ideas: explore ways to democratize technology systems for commons-based finance, and develop a "Eurozone for peer production" to serve the needs of people. One priority should be to sift through the many worthy possibilities to reach a higher level of agreement about priorities and strategies.

Develop a richer, broader discourse about finance and the commons. This suggestion augments the previous suggestion about policy development, but is more focused on creating new channels of communication and public education. It would be useful to have a dedicated publishing system that could select, edit and disseminate commons-oriented materials in both print and online. A MOOC curriculum would also be helpful – something that the Synergia Project led by John Restakis is currently developing. Additional workshops could also help refine the discourse about new financial alternatives. More workshops to play the "Trading Floor" game could help people better understand the social economic dynamics of money.

Initiate new venues for collaboration and activism. Buoyed by the richness of the dialogue, many workshop participants suggested the creation of new venues for continuing to work together. It was suggested that a Google Group or wiki be established, or something to formalize the mission and space of this network. It was also suggested that the Loomio software platform could facilitate online deliberation. The City of Bologna, as a laboratory for new types of urban commons and financing, could become a physical space where diverse international commoners could convene.

Intensify experiments in new currencies. Many participants believe that alternative currency experiments could yield some valuable results if given sufficient development support. Among the worthy projects cited: the uCoin experiment in Lille, France; the complementary currencies on Community Forge; Pat Conaty's suggestion of a demurrage money system for precarious workers; and an app to help precarious people regulate their incomes and show solidarity with each other; and related work on basic income campaigns and monetary reform linked solutions.

[37] FLOK Project [Free Libre Open Knowledge] 2013, Michel Bauwens, John Restakis, Daniel Araya, Janice Figeuiredo, George Dafermos, Jenny Torres. at http://commonstransition.org/flok-society.

Funding for project development and commons institutions. There are also a number of small but promising projects that could have a significant impact at larger scales. For example, the banking virtualization system developed by the Enspiral network could be utterly transformative if the design and implementation for open-source release were developed. The work of Goteo has shown the feasibility and effectiveness of crowdfunding for the commons, but can such principles be extended to dynamic forms of co-operative capital and "crowd equity" for developing commons? This looks feasible. The innovations in the UK and Canada with the development of community co-ops and the encouraging and growing scale of community share issues needs to be more widely replicated. Perhaps a partnership with Goteo and GAS groups in Italy could be considered. While community development finance organizations are no longer novel, the enormous potential of CDFIs and co-operative equity capital remains unrealized. More generally, funding and training support for commons development projects could be very beneficial.

Advice and support to Syriza in Greece. Andreas Karitzis of Syriza called attention to Greek interest in peer production, commons and alternative finance systems. In light of the failures of conventional systems, Karitzis said that it would be useful if a team of international experts in alternative finance could help various Greek efforts to develop the kinds of tools outlined in this report and help citizens confront the current situation in Greece. One participant suggested the creation of an Athens-based transition institute that would aim at building a "cooperative commonwealth" to function as a "Plan C" for Greece (following the failure of the Troika negotiations and the subsequent reversion to conventional economic policies). The research, policy development and project leadership of such an institution would have benefits that would help many people outside of Greece as well. Robin Murray agreed and argued the need to oppose the right-wing version of the Shock Doctrine (more privatization and enclosure) with a commons alternative. As he summed up the challenge, "under the existing financial system the power elite may have a hand of Queens and Jacks; but we have the future ideas and new technology on our side – the future Aces – if we can design and implement the alternative system."

Conclusion

Money is a complex and adaptive system. The fully integrated global system is dominated by private sector banking, driven by debt money whose compound rates of interest drives a type of growth that is socially divisive and ecologically destructive. To secure a Great Transition, money needs to be seen not as a thing or speculative commodity that rewards only a few winners but as a "convivial technology" – a kind of common resource that can help secure the common good. At the heart of the problem are two things. First that 95% or more of money in most countries is generated as debt, a legally enforceable IOU, and second, that this asset for the banks is artificially contrived out of thin air, as the Bank of England report confirmed in 2014. New money is not created through savings, but electronically invented every time a loan is issued (and dissolved as loans are repaid). No democratic monetary reform can succeed unless we expose and confront the collective ignorance that surrounds this system. We are in urgent need of educational campaigns that highlight the immense social costs of this system as well as the development of new public policies and concrete models for a different monetary system.

Here we must emphasize the role of the state as the lender of last resort and the fact that monies used to pay taxes are fully fledged forms of money. So we need to involve the public sector in monetary reform, and debt free form of money – currently about 5% of all money – needs to be hugely increased as a common sense alternative. But how?

The Deep Dive discussions showed that a commons-based system of money based on democratic and equitable principles – as opposed to debt and interest – is entirely feasible. The many options can be seen in both historic and current examples of interest-free money, public sector money not based on debt, and various forms of public, social and co-operative banking. Each approach serves different needs but all are complementary. The evident problem with developing these options today is the disjointed and weakly organized character of the many reform initiatives being pursued. In addition, reform advocates tend to be focused on their single, favored solutions when in fact a diversified system of tools is required. What commons thinking and practices can offer is clearer guidance on the principles for establishing a commons infrastructure that could unite the robust tools, models and key policy proposals into a dynamic, integrated and practical agenda for change. We need to develop a diverse ecosystem of democratic capital.

Serious reform is also impeded by national governments, whose central banking arms and treasuries are operationally integrated within, and controlled by, the pervasive debt-based money system. As Mellor stressed, this indebtedness to private banks goes to the heart of the problem. To overcome this iron grip of debt, democratized money needs to be the fundamental goal, and the basis for, systemic change. This means that governments need to reclaim the right of seignorage, the ancient right of the sovereign to create money. Fortunately, campaigns like Positive Money, which focus on reclaiming seignorage for the people by taking this power away from the banks, are gaining attention. Indeed, campaigns for new types of money 100% free of debt are steadily spreading internationally. The Swiss "Vollgeld Initiative" for sovereign money has just secured enough signatures to trigger a national referendum.[38] A key proposal by the campaigners is that 100% money reform should be used to implement a national basic income.

Public sector central banks and 100% money campaigns also emerged as a response to the 1929 Wall Street crash and the Great Depression. As Conaty pointed out, the Bank of Canada's emergence as a public central bank was especially transformative. The Canadian government used the powers of their new public central bank from 1938 to 1974 to effectively create interest-free money, and to use this new revenue through a public development bank arm to fund infrastructure,

[38] http://positivemoney.org/2015/11/swiss-citizens-initiative-collects-105000-signatures-triggers-referendum-on-money-creation/

affordable housing, pensions and other commonwealth services. Today, such forgotten practices are being revived through such ideas as "people's quantitative easing."

It is so important to recognize that there is already a wide range of co-operative banks as well as a growing number of social banks and community development finance organizations. We can and should build on these alternatives. However, co-operative banking has not embraced monetary reform and monetary innovation, and this is an obstacle to building a transformative system. This is a weakness and blind-spot in the co-op banking system, but co-operative banks and socially minded credit unions also represent possible opportunity for strategic partnerships.

To be sure, developing an effective strategy for securing an alternative system is difficult and complex. But this only highlights the importance of educating politicians and the public and credit unions and co-operative bankers about what money is, how it is created, what the consequences are, and how it can be democratically reframed. This will require, as a first priority, that the many stakeholders and practitioners in money and finance reform initiate a new, collaborative dialogue to formulate a practical monetary reform agenda and develop the ways and means to build common cause around the central issue of democratizing capital.

The real implementation and development challenge is to work out how the jigsaw pieces for advancing democratic money and banking can be fitted together. Backing by the state, as Mellor and Brown argued, can enable transformative breakthroughs. As the 2008 global financial crisis showed, states are the lenders of last resort and the ultimate source of trust in fiat money systems. Micro-level local money systems are creative and sometimes influential in their spheres, but without ways to expand these operations and experiments from typically hundreds of participants, to hundreds of thousands, the dominant system cannot be challenged, let alone replaced. Public/social and public/commons partnerships therefore need to be forged to develop co-operative forms of accumulation – a process that can over time can build a new monetary commons and establish the kind of co-operative commonwealth we have been describing.

It is crucial to shift our thinking from "money as debt" to a commons perspective that re-conceptualizes money as a form of shared equity. No root-and-branch transformation can occur without this understanding. In the meantime, there are many fertile fields to plough – the concept of social adventure capital, co-operative crowdfunding, co-operative money/mutual credit, blockchain technology, and the types of new economic democracy tools being pioneered by Enspiral. Besides developing these individual tools, co-operative capital and socially controlled money systems need to find new ways to link up and jointly integrate their respective innovations and ideas. That is the most promising path for major breakthroughs. The good news is that convivial money and co-operative forms of capital are entirely feasible. What is missing is a unifying vision and roadmap for system change. With the help of commons thinking, the next step is for key stakeholders, theorists, educators, policymakers and practitioners of economic democracy and democratic money systems, to come together to forge the practical unity needed to succeed.

Appendix A
Workshop Participants

Raymond Aitken	Banking for the Commons	Andalusia, Spain
Michel Bauwens	P2P Foundation	Chiang Mai, Thailand
David Bollier	Commons Strategies Group	Massachusetts, USA
Ellen Brown	Public Banking Institute	California, USA
Pat Conaty	Co-operatives UK	Wales, UK
Christophe Guene	KreditUnion	Berlin, Germany
Silke Helfrich	Commons Strategies Group	Jena, Germany
Christian Iaione	Lapsus and Labgov	Rome, Italy
Andreas Karitzis	Syriza	Athens, Greece
Oscar Kjellberg	alternative finance	Sweden
Alanna Kraus	Enspiral	New Zealand (but in Paris)
Heike Loeschmann	Heinrich Boell Foundation	Berlin, Germany
Paul Mason	Channel 4 News	London, UK
Thomas Mehwald	development finance	Berlin, Germany
Mary Mellor	University of Northumbria	Newcastle upon Tyne, UK
Robin Murray	Co-operatives UK	London, UK
Jason Nardi	Solidarius; RIPESS	Florence, Italy
Maria Perulero	Goteo	Madrid, Spain
John Restakis	Community Evolution Foundation	Vancouver, Canada
Clifford Rosenthal	New School for Social Research	New York, USA
Sybille Saint Girons	Valeuereux network	France
Simon Sarazin	Encommuns.org	Lille, France
Peru Sasia	REAS and Banca Etica	Spain
Matthew Slater	Ecovillages Network	France

Appendix B
Select Workshop Readings

1. **Introduction to Post-Capitalism**
   Paul Mason, excerpt from his book *Post-Capitalism* (2015).
   http://www.theguardian.com/books/2015/jul/17/postcapitalism-end-of-capitalism-begun

2. **How is money created as debt and what would democratic money look like in a provisioning economy?**
   "Public Money for Sustainability and Social Justice," paper by Mary Mellor, Emeritus Professor, Northumbria University, https://www.luminpdf.com/viewer/Aku4KFBHvZkTgdbND

   See also a longer version in Real-World Economics Review, Issue no. 54, http://www.paecon.net/PAEReview/issue54/Mellor54.pdf

   Mary Mellor also recommends the following relevant publications:
   Debt or Democracy: Public Money for Sustainability and Social Justice (Pluto November 2015)
   The Future of Money: From Financial Crisis to Public Resource (Pluto 2010)
   The Politics of Money (Pluto 2002 co-authored)

3. **What are public banks and how do they operate?**
   Ellen Brown, https://docs.google.com/document/d/1YRRpdOSxq3ehSe4-gFEUz1BZRYWINOwJ3WVDnklUOK0/edit

   See also video, Ellen Brown on How Public Banking Can Fund the New Economy, https://www.youtube.com/watch?v=5soFCyjNByk (June 2nd 2013)

   Ellen Brown calls for an economic bill of rights, http://www.truth-out.org/news/item/4748:now-is-the-time-for-an-economic-bill-of-rights#

4. **What is co-operative and community development finance?**
   Clifford N. Rosenthal, "The Quest for Community Controlled Capital: Community Development Financial Institutions (CDFI) in the U.S.," https://www.luminpdf.com/viewer/Ysh3nr8CejWehAuRd

5. **What is JAK interest-free banking and how does this operate?**
   Pat Conaty and Mike Lewis, http://www.communityrenewal.ca/swedens-jak-bank

   See also: Mike Lewis and Pat Conaty, excerpt from *The Resilience Imperative*, on the history and operations of JAK banking, pp. 74-83. Also: http://p2pfoundation.net/Cooperative_Transitions_to_a_Steady-State_Economy and http://p2pfoundation.net/JAK_Bank

6. **Introduction to the blockchain ledger and its implications for the commons**
David Bollier, at http://bollier.org/blog/blockchain-promising-new-infrastructure-online-commons

See also: IEEE introduction to the blockchain: http://spectrum.ieee.org/computing/networks/the-future-of-the-web-looks-a-lot-like-bitcoin

7. **Introduction to the commons and its role in sustainability**
David Bollier and Burns H. Weston, "Reimagining Ecological Governance Through a Rediscovery of the Commons," excerpt from the book, *Thought, Law, Action and Rights in the Age of Environmental Crisis* (2015).

8. **Solidarity Economy in Europe: an emerging movement with a common vision**
Jason Nardi, at http://ripess.eu/wp-content/uploads/2015/03/Solidarity-Economy-in-Europe-a-common-framework.pdf

See also: "Public Policies to promote the solidarity economy," at http://p2pfoundation.net/Public_Policies_To_Promote_the_Social_Solidarity_Economy

"A license for the Solidarity Economy," at http://p2pfoundation.net/Copysol_License

9. **The Care-Centered Economy**
Ina Praetorius, "The Care-Centered Economy: Rediscovering What Has Been Taken for Granted," at http://us.boell.org/sites/default/files/the_care-centered_economy.pdf

See also David Bollier's summary of the lengthy essay: http://bollier.org/blog/care-centered-economy-new-theory-value