

Old Utopias, New Tax Havens: The Politics of Bitcoin in Historical Perspective

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Abstract: Cryptocurrencies are frequently framed as future-oriented, technological innovations that decentralize money and thereby liberate it from centralized governance structures and the political tentacles of the state. This is misleading on several counts. First, electronic currencies cannot leave the politics of money behind even where they aim to disavow it. Instead we can understand their impact as a political attempt to depoliticize money. Secondly, the dramatic price swings of cryptocurrencies such as Bitcoin challenge their claims to be currencies and place them more persuasively as speculative assets. Ironically, while the preferential tax and regulatory treatment of cryptocurrencies hinges on their nominal status as currencies, their success as speculative assets has undermined precisely such claims. Thirdly, far from heralding a radical break with the past, electronic currencies serve as a reminder of the still unresolved global politics of money of the 1970s. To support these three interrelated theses this chapter places the rise of cryptocurrencies in the historical context of the international politics of money since the 1970s and the response to the Financial Crisis of 2008.

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I. Introduction

Cryptocurrencies are frequently framed as future-oriented, technological innovations that decentralize money and thereby liberate it from centralized governance structures and the political tentacles of the state. As I argue in this chapter, almost every single aspect of this picture is either straightforwardly false or highly misleading. Instead of associating cryptocurrencies with a futuristic technology that lifts money above politics, in this chapter I take a contrarian view by placing the political vision behind cryptocurrencies in the historical context of the global politics of money after the collapse of the Bretton Woods system.¹ This has a number of implications. Most importantly, instead of accepting the self-presentation of cryptocurrencies, such as Bitcoin, as a technological innovation that removes money from politics, recovering their broader historical and political context allows us to see cryptocurrencies as part of a struggle over the political status of money in an age of financialization. After all, Bitcoin enthusiasts themselves often frame their own ambition to decentralize the issuance of money as a major *political* attraction. Instead of a hub-and-spokes model of a central bank that supports and regulates a cluster of commercial banks, Bitcoin supporters hail the advent of a decentralized monetary system in which issuance is externally fixed and payments are settled decentrally through the public ledger of a blockchain.

In this chapter I initially follow up on this vision by interrogating its underlying political theory. By shedding light on the political visions that tend to undergird cryptocurrencies we can critically examine the frequent gap between public political

¹ See also Primavera De Filippi and Aaron Wright, *Blockchain and the Law. The Rule of Code* (Harvard University Press, 2018).

vision, implicit politics, and actual implementation. Instead of taking this vision of successfully removing money from politics at face value, I propose that cryptocurrencies are suspended between two contradictory goals: first, a radical politics that seeks to depoliticize the appearance of money and an attempt to turn cryptocurrencies into speculative assets beyond the regulatory grasp of monetary and fiscal authorities. From both perspectives, the attempt to remove money from political control is itself a supremely political act that raises profound questions of legitimacy and requires justification. In this chapter I look specifically at the example of Bitcoin, by far the most popular and valuable cryptocurrency with a “market value” of around \$125 billion at the time of writing. Significantly, the depoliticized vision of money embodied by Bitcoin arose in the context of the overt politicization of money during the Financial Crisis. Since its birth in 2009 Bitcoin has experienced wild price swings. In the course of 2017, the price of Bitcoin soared tenfold, before crashing by 75 percent. For hedge funds meanwhile, Bitcoin’s erratic swings, that are almost entirely divorced from the rest of financial markets, is precisely what makes cryptocurrencies attractive. Ironically, while Bitcoin’s preferential tax and regulatory treatment hinges on its status as a currency, rather than simply a speculative asset or a form of shadow banking, its dramatic appreciation and price swings render its claim to being a currency largely void.

While electronic currencies are a recent development, political attempts to depoliticize money are a central, perhaps constitutive, feature of liberal modernity. One could therefore tell an even longer story involving the contested political status of money in modernity. In this chapter, however, I place cryptocurrencies in the narrower historical context of the global politics of money that emerged out of the 1970s after the collapse of

the Bretton Woods system. In particular, I distinguish between three periods: first, an initial phase of the politicization of money (1973-1979); followed by the emergence of a global politics of disinflation that came to be hailed as the Great Moderation (1980-2008); and thirdly, our current period in the wake of the Financial Crises of 2008 that revealed the fragility of many of the presuppositions of the Great Moderation and returned us to the unresolved questions of the 1970s (2008-present).

To grasp the peculiar politics underlying most currently existing cryptocurrencies it is thus helpful to see their rise as a restaging, under new circumstances, of the contentious political demands for monetary depoliticization and privatization of the 1970s. The insistence on technological novelty associated with cryptocurrencies can easily obscure the ways in which their underlying visions resemble those of earlier arguments during the 1970s, in particular Friedrich Hayek's argument for the privatization and "denationalization" of money.² This utopian vision of the privatization of money during the late 1970s contended at the time with subsequently largely displaced Third World demands for the politicization and democratization of global money. With the Financial Crisis both demands, marginalized or rendered altogether invisible during the Great Moderation, have resurfaced. If cryptocurrencies can be seen as re-staging earlier attempts of monetary depoliticization, including a curtailment of the political control of money, the Financial Crisis has also opened up renewed calls for democratic monetary reform that echo unsuccessful demands by then recently decolonized countries during the late 1970s for global monetary reform. But the late 1970s and early 1980s are

² Friedrich August Hayek, *Denationalisation of Money*, Hobart Papers Special 70 (The Institute of Economic Affairs, 1976); enlarged version reprinted as Friedrich August Hayek, "The Denationalization of Money: An Analysis of the Theory and Praxis of Concurrent Currencies [1978]," in *Good Money, Part II*, ed. Stephen Kresge, The Collected Works of F.A. Hayek, Vol. 6 (Liberty Fund, 1999) 128-229.

also instructive for the way in which the system that emerged did not do away with the sovereign prerogative to govern money – in many ways it further strengthened it, as the Financial Crisis revealed –but it at the same time embedded it in new system of global monetary flows based on the principle of capital mobility. This web of global money today absolves it from democratic political demands.

Caught between their aspiration to be currencies and their reality as speculative assets, cryptocurrencies are likely to become victims of their own success. Not only are regulators likely to step in to contain financial fraud, regulate systemic risks, and tax speculative gains, but established financial actors have already begun to integrate cryptocurrencies into their business models. In either case, whatever scenario will emerge does not depend on technological inevitabilities but on political acquiescence. It is here too that the future of electronic currencies becomes malleable and unpredictable. Cryptocurrencies have so far been predominantly associated with the political depoliticization of money. But politically, the underlying blockchain technology is radically underdetermined. Blockchain algorithms are made and reflect the political intentions of their authors. There is nothing inherent in blockchain technology that rules out centralization, regulatory oversight, or democratic governance, be it by central banks, commercial banks, or other providers that benefit from network effects. Unsurprisingly, both central banks and commercial banks have already developed blockchain protocols that combine a decentralized ledger with the possibility of centralized oversight and control.

II. Two Utopias

On December 11, 1974, Friedrich August Hayek stepped up to the lectern at the Stockholm School of Economics to deliver his obligatory prize lecture for the Nobel Memorial Prize in Economic Sciences he had been awarded the previous night. As Hayek announced in his opening lines, the chief practical problem across the Western world today was the experience of inflation.³ This had made his choice of topic easy, indeed almost inevitable. The problem of inflation, Hayek exhorted, threatened Western civilization at its very foundation. “Economists,” he explained, “are at this moment called upon to say how to extricate the free world from the serious threat of accelerating inflation.” But they were failing. As a profession, “we have made a mess of things.” Blaming the inflation on epistemological hubris, Hayek launched a fundamental challenge to Keynesian national welfarism and placed stable money at the heart of his liberalism. Money, Hayek had already explained in *The Road to Serfdom* (1944), “is one of the greatest instruments of freedom ever invented by man.”⁴

Spurred on by the inflation of the 1970s and utilizing the prestige of the Nobel Prize, Hayek returned to his monetary writings from the interwar period and updated them with startlingly radicalized conclusions. As he declared in 1975 in a lecture at a London-based free market think tank, “the cause of waves of unemployment is not

³ Friedrich August Hayek, “The Pretence of Knowledge. Lecture to the Memory of Alfred Nobel, December 11, 1974,” in *New Studies in Philosophy, Politics, Economics and the History of Ideas* (The University of Chicago Press and Routledge & Kegan Paul, 1978) 23-34; here: 23. For an account of Hayek’s visit to Sweden see Bruce Caldwell, “Hayek’s Nobel,” *Advances in Austrian Economics* 21 (2016).

⁴ Friedrich August Hayek, *The Road to Serfdom*, ed. Bruce Caldwell, The Collected Works of F. A. Hayek, Volume 2 (The University of Chicago Press, 2007) 125. In *The Constitution of Liberty* (1960), Hayek similarly stressed the importance of “the monetary framework” for any classically liberal position. Friedrich August Hayek, *The Constitution of Liberty* [1960], ed. Bruce Caldwell and Ronald Hamowy, The Collected Works of F.A. Hayek, Vol. 17 (The University of Chicago Press, 2011) 451-65.

‘capitalism’ but governments denying enterprise the right to produce good money.”⁵

Economic crisis and inflation were a result of “the exclusion of the most important regulator of the market mechanism, money, from itself being regulated by the market process.”⁶ The lecture, soon expanded into a pamphlet and published as *The Denationalization of Money*, entered wide circulation on the back of Hayek’s Nobel fame. Given the inflation shock of the 1970s, the time had now come to eliminate the government monopoly of money and fully privatize its issuance. No government with direct control over money could ever be trusted not to abuse it. While Hayek blamed the inflationary malaise on Keynes’s influence specifically, his critique now extended to the political control over money more generally. Money, Hayek insisted, was simply too dangerous an instrument to be left to the state and the “fortuitous expediency” of politicians or indeed economists. “Our only hope for a stable money,” he exclaimed, “is indeed now to find a way to protect money from politics.”⁷

Over the subsequent years, as inflation soared once more to more than ten percent in the US and more than twenty percent in Britain, Hayek dedicated himself to spreading the gospel. As he explained in 1979, the deprivation of governments of their monopolistic control of money was the only “possible escape from the fate which threatens us.”⁸ Left unchecked, inflation will “lead to the destruction of our civilization.”⁹ His call for the privatization of the monetary order dovetailed in this regard with his other constitutional recommendations, including a proposal to raise the voting age for a second legislative

⁵ Hayek, “The Denationalization of Money,” 128-229.

⁶ Hayek, “The Denationalization of Money,” 202.

⁷ Hayek, “Choice in Currency,” 120; 125.

⁸ Friedrich August Hayek, *Law, Legislation and Liberty, Volume 3: The Political Order of a Free People* (The University of Chicago Press, 1979), xiii-xiv.

⁹ Hayek, “The Denationalization of Money,” 186.

chamber to forty-five.¹⁰ As Hayek stressed, “my radical proposal concerning money will probably be practicable only as part of a much more far-reaching change in our political institutions, but an essential part of such a reform which will be recognized as necessary before long.”¹¹ Both parts were necessary “if we are to escape the nightmare of increasingly totalitarian powers.”¹²

Hayek had not been the sole recipient of the Nobel Prize in Economics in 1974. In the heated political climate of the early 1970s, the Swedish Academy of Sciences instead jointly awarded the 1974 Prize to Hayek and the Swedish economist Gunnar Myrdal for their “pioneering work in the theory of money” as well as their “penetrating analysis” of the interdependence of economic, social and institutional phenomena.¹³ Two radically divergent visions of money were on offer. When giving his own Nobel Lecture, Myrdal agreed with Hayek about the constraints of national welfarism and the pressing global situation of crisis.¹⁴ But instead of veering toward a vision of competing private currencies in world of liberalized global trade, Myrdal proposed an internationalization of the postwar welfare state.¹⁵ Decolonization posed a profound challenge to the unequal welfarist settlement of the postwar world. As Myrdal reminded his audience in Stockholm, “the underdeveloped countries are therefore now proclaiming the necessity of

¹⁰ Hayek, *Law, Legislation and Liberty*, Vol. 3, 113.

¹¹ Hayek, “The Denationalization of Money,” 186.

¹² Friedrich August Hayek, “Consolidated Preface,” in *Law, Legislation and Liberty. A New Statement of the Liberal Principles of Justice and Political Economy, Volumes 1-3* (London: Routledge & Kegan Paul, 1982), xx.

¹³ “The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1974.” Available online: http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1974.

¹⁴ Gunnar Myrdal, “The Equality Issue in World Development,” *Lecture to the Memory of Alfred Nobel*, March 1975.

¹⁵ Adom Getachew, *Worldmaking after Empire: The Rise and Fall of Self-Determination* (Princeton University Press, forthcoming); see also Gunnar Myrdal, *Beyond the Welfare State: Economic Planning and its International Implications* (New Haven: Yale University Press, 1960).

not only increased aid but fundamental changes of international economic relations. By their majority votes they can in the United Nations carry resolutions like the Declaration on the Establishment of a New International Economic Order.”¹⁶ In aligning himself with the demands of the NIEO, which had successfully passed its UN resolution in May 1974, Myrdal insisted that “what the poor masses need is not a little money [but] fundamental changes in the conditions under which they are living and working.” The present calamitous situation in the world – and here Myrdal was thinking as much of famines as of inflation – posed a fundamental moral problem that required a comprehensive political reform of the international economic and monetary system.

In 1980, as Hayek was on the lecture circuit promoting his vision of a world of only private monies, a coalition more to Myrdal’s liking was gathering in the sprawling Tanzanian city of Arusha. Instigated by the President of Tanzania Julius Nyerere and the Jamaican Prime Minister Michael Manley, the South-North Conference on “The International Monetary System and the New International Order” met in the vast Arusha International Conference Center from June 30 to July 3, 1980 to discuss the future of the international monetary system.¹⁷ While the NIEO had burst onto the international scene in the immediate wake of the collapse of the Bretton Woods system, it had in many ways still been an outgrowth of the anti-colonial trade struggles of the 1950s and 1960s.¹⁸ Though it made references to the need for monetary reform, these were fleeting. By the

¹⁶ Myrdal, “The Equality Issue in World Development.” For the NIEO resolution, see “Declaration on the Establishment of a New International Economic Order,” Resolution adopted by the United Nations General Assembly, A/RES/S-6/3201 (May 1, 1974).

¹⁷ The proceedings were published as “The Arusha Initiative. A Call for a United Nations Conference on International Money and Finance,” *Development Dialogue (Uppsala)* 2 (1980). The Swedish Dag Hammarskjöld Foundation had partially helped to fund the gathering.

¹⁸ Getachew, *Worldmaking after Empire*, ch. 5; as well as the special NIEO issue of *Humanity: An International Journal of Human Rights, Humanitarianism, and Development*, Volume 6, Number 1 (Spring 2015). In his contribution, Bret Benjamin describes the NIEO as the “bookend to Bandung,” 33-46.

end of the 1970s, however, the monetary dimension had fully asserted itself internationally. As the experience of peacetime inflation traumatized most OECD countries, the Global South had been hit even harder and in the case of Jamaica and Tanzania had just gotten a first taste of the International Monetary Fund's "structural adjustment" policies.

Within sight of Mount Kilimanjaro, the Arusha conference was in this context meant both as an expression of solidarity with Jamaica and Tanzania as well as a call for a UN conference on international monetary reform.¹⁹ Confronted with the technocratic imperatives of the IMF, the participants pointed instead to the inescapable politics of money. "Money is power," declared the signatories of the resulting Arusha Initiative. "Those who wield power control money. Those who manage and control money wield power. An international monetary system is both a function and an instrument of prevailing power structures."²⁰ As the Arusha Statement pointed out, while the stabilizing elements of the Bretton Woods order had collapsed in the course of the 1970s, the IMF and the World Bank remained standing and continued to reflect the power balances of an international order in which the majority of Third World countries had not yet existed.²¹ While the UN General Assembly had since been enlarged, the IMF continued to resemble a hierarchical world more akin to the Security Council. Although the Third World counted close to one hundred countries that included more than two thirds of the world's population its cumulative voting share at the IMF amounted to no more than 35 percent and thus less than the 40 percent of the five leading industrial powers alone.

¹⁹ Vijay Prashad, *The Darker Nations: A People's History of the Third World* (The New Press, 2007) 191. For the Fund's perspective on the Arusha Initiative, see Jim Boughton, *Silent Revolution: The International Monetary Fund 1979-1989* (International Monetary Fund, 2001) 588-601.

²⁰ "The Arusha Initiative," 12.

²¹ "The Arusha Initiative," 12.

Even worse, in the course of the 1970s, as the United States abandoned the embedded multilateralism of the postwar period for unilateralism, the IMF had in fact become even more beholden to the G7 than ever before. As the Third World countries had declared the previous fall when meeting in Jamaica in October 1979, “the IMF, acting on behalf of the major industrialized capitalist countries, has assumed a growing role as a financial and economic policeman in Third World countries.”²² In addition to the previous political imbalances of the Bretton Woods system, during the 1970s a new tendency had “emerged for the Fund to exercise a major influence on the process of internal decision-making in a number of the Third World countries.”²³ The collapse of the Bretton Woods system, imperfect as it had been, had left behind an ad hoc non-system that coupled an evasion of responsibilities to a heightened opportunism. The dollar’s dual role as both the domestic currency of the United States as well as the international reserve (and shadow banking) currency of choice had already marked the postwar period. The collapse of Bretton Woods had not ended this “exorbitant privilege” but informalized it and lifted most obligations previously associated with it.²⁴ Given the growing destabilizing effect of largely unregulated flows of so-called “Eurodollars” under conditions of floating exchange rates and increasing capital mobility, the dollar’s mark on the rest of the world was deepened in unpredictable ways.²⁵

²² As cited in Prashad, *Darker Nations*, 66. “The Terra Nova Statement on the International Monetary System and the Third World,” Terra Nova Hotel, Kingston, Jamaica, October 5-7, 1979, *Development Dialogue*, 1 (1980).

²³ “Terra Nova Statement,” 2.

²⁴ Barry Eichengreen, *Exorbitant Privilege. The Rise and Fall of the Dollar* (Oxford University Press, 2011); Benjamin J. Cohen, *Currency Power: Understanding Monetary Rivalry* (Princeton University Press, 2015).

²⁵ Harold James, *Making the European Monetary Union* (Harvard University Press, 2012) 9-10, 146-180; Jeffrey A. Frieden, *Banking on the World* (Harper and Row, 1987) ch. 4.

The Arusha Initiative's emphasis on the international monetary system's burden of hierarchical imbalances was in this light both an insistence on money's political nature and an attempt to counter claims to neutral technical expertise asserted by the Fund's "money doctors." The IMF, the Arusha signatories explained, "claims to have a 'scientific' basis for these policies and to be an objective and neutral institution charged with the 'technical' function of 'helping' countries to overcome their financial difficulties."²⁶ But all available scholarly evidence, including the Fund's own internal documentation (which Nyerere had leaked to the international press), pointed the other way. The IMF was neither purely scientific, nor neutral. Instead, it systematically applied double standards to otherwise similar situations and was deeply ideological in the way it framed underdevelopment as a lack of private markets. In reducing the international politics of money to seemingly scientific theories of underdevelopment and domestic structural reforms, the IMF was a depoliticization machine.²⁷ Its denial of the political nature of money was the capstone of these efforts. But as the Arusha Statement declared perceptively, precisely in denying the politics of money the IMF "has proved to be a basically political institution."²⁸

The IMF's efforts to the contrary notwithstanding, the "present monetary non-system" was "man-made and can consequently be redressed by political decisiveness and action."²⁹ The monetary disorder of the 1970s was neither inevitable nor accidental. What was needed was consequently not technical fixes and domestic programs to adjust to the

²⁶ "Arusha Initiative," 12-13.

²⁷ James Ferguson, *The Anti-Politics Machine: "Development," Depoliticization, and Bureaucratic Power in Lesotho* (University of Minnesota Press, 1994).

²⁸ "Arusha Initiative," 14.

²⁹ "Arusha Initiative," 15-16, 21-22.

new logic of discipline but a political reform of the international monetary constitution. The abrogation of political agency in international monetary matters was in this regard an embarrassment to human rationality and ingenuity. The only viable response against this now was for money to “be demystified and exposed to public debate and scrutiny.”³⁰ The necessary political decisions would have to be taken “by governments acting in a collective and democratic manner.”³¹ Unlike the redistributive commodity confrontation of the NIEO, it was furthermore not clear that international monetary reform was a zero sum game. After all, South and North both had an interest in creating a truly stable international monetary system that would be better equipped to address the issue of inflation. The Arusha Declaration ended in this spirit by urging “the governments of East and West to pursue together their common interest in a universal and democratic monetary system.”³²

Both Hayek and the Arusha Initiative detected political forces behind the ad hoc international monetary order of the 1970s. But their respective conceptions and assessments of the politics of money could hardly have diverged more strongly. Where Hayek saw states abusing their monetary monopoly to create inflation, the signatories in Arusha saw developed countries bending the post-Bretton Woods monetary order in their interest. Hayek’s call for the removal of money from politics thus found its exact counterpart in the Arusha Initiative’s attempt to raise an awareness of money’s political purpose.

³⁰ “Arusha Initiative,” 21.

³¹ “Arusha Initiative,” 11.

³² “Arusha Initiative,” 21-22.

In the end, both Hayek's vision of competing private currencies and the Arusha vision of a post-colonial international monetary constitution were disappointed. But it was nonetheless Hayek who had the last laugh. What won the day was a continuation of the ad hoc system of informal American global money and floating fiat currencies but now operated by the semi-depoliticized, technocratic rule of experts in formally independent central banks. Few observers during the 1970s would have expected this development. States were nominally left in control of currencies but abrogated many of their political responsibilities.³³ This was not Hayek's vision of pure private money. But it approximated his goal since it depoliticized economic relations, ensured price stability, and enforced economic discipline. The new system was furthermore complemented by an unprecedented level of private credit money in the form of new financial instruments that circled the globe often beyond the direct reach of governments. In particular the establishment of the free movement of capital in the course of the 1980s was essential to this.³⁴ None of this was lost on Hayek and when he was asked to address Visa credit cards executives in Athens in 1981 he used the opportunity to remind them of the significance of private credit acting as a private unit of account beyond the state.³⁵

If the Great Moderation that emerged self-consciously imposed constraints on collective bargaining and real wage growth, the taps of private consumer credit were at the same time opened and helped to muffle the most immediate pain. The international monetary order that arose out of the 1970s took the Arusha Statement's insistence on

³³ Stefan Eich and Adam Tooze, "The Great Inflation," in *Vorgeschichte der Gegenwart*, ed. Anselm Doering-Manteuffel, Lutz Raphael, and Thomas Schlemmer (Vandenhoeck & Ruprecht, 2015).

³⁴ Rawi Abdelal, *Capital Rules. The Construction of Global Finance* (Harvard University Press, 2007).

³⁵ Friedrich A. Hayek, "The Future Unit of Value," Visa International Annual Conference, Athens, Greece (September 14, 1981), Papers of Friedrich A. Hayek, Hoover Institute, Stanford University, Box 131, Folder 5.

money's political nature seriously but derived from it Hayek's objectives of discipline and price stability. The age of floating national fiat currencies unexpectedly produced a new politics of monetary depoliticization. To Hayek's surprise, the lesson of the 1970s thus illustrated the unexpected way in which a self-reflexive modernity could end up defining itself in a foreclosure of its own agency. For better or worse, democracies turned out to be remarkably able and willing to bind themselves. If the collapse of Bretton Woods had repoliticized money, one expression of the new politics of money consisted in its own disavowal.³⁶ Where inflation and the politics of money had dominated the immediate post-Bretton Woods years, with the successful assertion of a newly depoliticized appearance of money during the 1980s, the politics of money – and with it Myrdal's call for a welfare world and Third World demands for international monetary reform – faded from view.

III. The Financial Crisis and the Birth of Bitcoin

Until the Financial Crisis of 2008, the contours and implications of the depoliticized anti-inflationary system that had unexpectedly emerged out of the late 1970s were rarely questioned. Low inflation rates, enforced by independent central banks, were instead hailed as having paved the way to the “Goldilocks economy” of the Great Moderation.³⁷ But as the world's central banks and treasuries had to step into the breach to undertake sprawling rescue actions to prevent an imminent collapse of the global financial system, two myths rapidly unraveled. Most immediately, the Crisis

³⁶ David Singh Grewal, *Network Power: The Social Dynamics of Globalization* (Yale University Press, 2008), 105.

³⁷ Ben S. Bernanke, “The Great Moderation,” Remarks at the meetings of the Eastern Economic Association, Washington D.C. (February 20, 2004).

revealed the widely held belief of money as neutral and somehow outside of politics as an illusion. While the appearance of money had been naturalized during the Great Moderation as a depoliticized tool of scarcity, it was now revealed once more as fickle and malleable. The state, seemingly obsolete before the Crisis, had to backstop the financial system by socializing its losses. In the European context, where the vision of depoliticized money had paved the way for deeper integration in the form of a currency union without matching political mechanisms of adjustment, the Eurocrisis revealed the apolitical design of the Euro and policy makers' refusal to politically restructure debts as a tragic flaw that pitted nations against each other instead of bringing them closer together.³⁸

But if money turned out to be more political than many had come to assume, the crisis also rapidly undermined any presumption that money was still straightforwardly privy to the sovereignty of states and accountable to politics. In the terminology of this dissertation, currency had in large parts been replaced by private global money. As central banks sought to exercise control over the money supply and the credit system they saw themselves confronted with a vast and arcane global financial structure that was at least in part beyond their control. Since the late 1970s economic globalization and the international integration of financial markets have severely constrained formal state competencies in monetary and financial matters and led, as scholars of International Political Economy have traced, to a “deterritorialization” of money.³⁹ Where the

³⁸ For a reading of the Eurocrisis that blames not structural causes but bad crisis management and, in particular, the unwillingness to restructure debt, see Martin Sandbu, *Europe's Orphan: The Future of the Euro and the Politics of Debt* (Princeton University Press, 2015).

³⁹ Claus Zimmermann, “The Concept of Monetary Sovereignty Revisited,” *EJIL* (2013), 799-800. Benjamin J. Cohen, “The new geography of money,” in *Global Monetary Governance* (Routledge, 2008), 207-224.

literature of the 1970s had offered state-centric analyses of power,⁴⁰ the same scholars have since sketched market-centric accounts of globalization and financialization.⁴¹ If the crisis thus revealed money to be inescapably political, politics found itself at the same time shortchanged in its ability to govern the new money.

It had of course been states themselves that had tied themselves to the mast of monetary depoliticization in the hope of deflecting responsibility from the painful disinflationary economic choices of the late 1970s and early 1980s. But in the Financial Crisis, as states sought to loosen these bonds in order to regain their agency, they found themselves as an Odysseus whose crew now refused to untie him. In the Eurozone, the realization of money's political dimension was similarly accompanied by states coming to the painful realization that the tools of monetary policy were no longer available to them when they needed them most while the European Central Bank proved inept in fully living up to its new responsibilities.

Despite these constraints, central banks acted swiftly and enacted historically unprecedented rescue measures that ranged from bailing out financial institutions to extending vast international swap lines to favored central banks around the world. This new assertion of political agency left central banks in a perilous position. As Adam Tooze has pointed out, it was always a telling contradiction of neoliberalism that its emphasis on discipline was coupled to the elevation of a select group of central bankers to captains of global prosperity.⁴² Faced with financial meltdown, the depoliticized rule-based model of neoliberal governance that had promised to disentangle politics and

⁴⁰ Susan Strange, *Sterling and British Policy* (Oxford University Press, 1971); Benjamin Cohen, *The Future of Sterling as an International Currency* (Macmillan, 1971).

⁴¹ Susan Strange, *Mad Money: When Markets Outgrow Governments* (University of Michigan Press, 1998); Benjamin Cohen, *The Geography of Money* (Cornell University Press, 1998).

⁴² Adam Tooze, "Just Another Panic," *New Left Review* 97 (January-February 2016), 129.

economics was revealed as hinging on the ability of experts with largely undefined mandates to directly intervene in the financial system. As a flipside of their increased importance, central banks now found themselves in the political limelight without being quite able to fess up to their own agency. They had become central planners that dare not speak their name.⁴³ The newly visible agency of central banks uncomfortably raised the possibility of political choices in a system that was supposedly without alternatives. The recognition that central bankers could create money at will with the click of a proverbial button provoked starry-eyed amazement from those toiling under the weight of austerity during the Great Recession.

With the myth of apolitical money eroded, the divergent visions of the 1970s have made a concealed comeback. Reminded of the ability of central banks to create money at will, since the Financial Crisis there have been once more a number of proposals that aspire to complete the Hayekian call for denationalized and privatized monies removed from the control of the state. Though it undoubtedly shaped the anti-inflationary turn that won the day, Hayek's vision of competing private currencies, akin to eighteenth-century Scotland or early nineteenth-century America, ultimately failed to gain traction. With the depoliticizing successes of the Great Moderation and the rise of global credit money beyond governments' direct control it rapidly lost its urgency. But the idea never quite died. It remained a secret fantasy of those with libertarian leanings. Even among central bankers, whom Hayek had after all castigated as doing the devil's work, it was nurtured. In 1996, Alan Greenspan, then chairman of the Federal Reserve and just reappointed by President Clinton, marveled at how the technological innovations under way could bring

⁴³ J. W. Mason, "The Fed Doesn't Work For You," *Jacobin* (January 2016).

back the possibility of private money. “We could envisage proposals in the near future,” he explained, “for issuers of electronic payment obligations, such as stored-value cards or ‘digital cash’.”⁴⁴ In the midst of the Financial Crisis, with the traditional banking system under threat and governments’ powerful role in monetary matters once more on full display, the possibility suddenly became concrete as Hayek’s vision resurfaced electronically.⁴⁵

On November 1, 2008, mere weeks after the collapse of Lehman Brothers, a pseudonymous Satoshi Nakamoto posted a paper on an online messaging board that contained a technical proposal for an electronic crypto-currency he dubbed bitcoin. In the code of the first bitcoin block, Nakamoto included a short message.

The Times 03/Jan/2009
Chancellor on brink of second bailout for banks

Meant to serve as a time stamp, the message also embodied bitcoin’s ethos and motivation. From the start, bitcoin’s mysterious founder (or those operating behind his pseudonym) and its fervent enthusiasts envisioned the new electronic currency as a digital analog to gold: a universal money beyond human control. Where Hayek had sought to take money away from the state, bitcoin now aimed to remove it both from the state and from banks. This was a currency for an age in which trust had collapsed. What made Bitcoin unique was that it was “a system for electronic transactions without relying on trust. . . . The real problem with conventional currency is all the trust that is required to make it work.”⁴⁶

⁴⁴ As cited by Nathaniel Popper, *Digital Gold. The Untold Story of Bitcoin* (Harper Collins, 2015).

⁴⁵ Benjamin J. Cohen, “Electronic Money: New Day or False Dawn?,” *Review of International Political Economy*, Volume 8, Issue 2 (2001) 221.

⁴⁶ Satoshi Nakamoto, “Bitcoin: A Peer-to-Peer Electronic Cash System,” November 2008, 8.

Behind this dark vision of the fragility of human trust and reason, one can easily detect Hayek’s vision of private monies administered by superior markets. However, where Hayek could innocently think of banks as ideal tools for the privatization of money, in Nakamoto’s post-crisis conscience banks were just as tainted as governments. In the Crisis banks had failed to function as intended, instead bringing the financial system within inches of fatal collapse. Even worse, as the waves of bailout proved, it was not entirely obvious that fractional reserve banks issuing credit in sovereign currency were indeed fully private institutions. When it mattered banks either received public support from central banks or, in many cases, were straightforwardly nationalized. As Nakamoto recognized, a denationalized, privatized currency for the twenty-first century would have to exist outside the banking system. Despite such crucial differences the Hayekian aspiration to denationalize money is never far from Bitcoin’s surface. Nor is the nostalgia of metal money. One Montana-based entrepreneur – Anthem Hayek Blanchard, whose first name is the title of an Ayn Rand novel while his middle name speaks for itself – has since combined all three elements in the form of a digital currency that is backed by a gram of gold, that he dubbed “HayekCoin.”⁴⁷ As its choice of metaphors of “mining” suggests, despite being cast in technological futurism, Bitcoin also always looks back nostalgically to a world of metal money. Driven both by the attempt to induce economic discipline and a Polanyian quest for the intensified commodification of money, Bitcoin is a project of artificial scarcity.⁴⁸

⁴⁷ Henry Sanderson, “Digital currencies: A gold standard for Bitcoin,” *Financial Times* (May 15, 2015).

⁴⁸ As computing power becomes more powerful, the mathematical problem that needs to be solved in order to “mine” an additional Bitcoin is designed to become automatically more complicated. Bitcoin is also irreversibly programmed to stop “mining” once there are 21 million Bitcoins (as of March 2018, around 16 million had been generated).

IV. The Politics of Bitcoin

As much as blockchain systems may aspire to “create order without law,” as De Filippi and Wright put it, these visions are not beyond politics.⁴⁹ Instead, cryptocurrencies are highly political projects in their own right. From the beginning, Bitcoin presented itself in the garb of a transformative utopian project, with roots in cypherpunk, anarchist, and libertarian promises of technology. Robbing governments and banks of their ability to control money, created on this view a world in which states lost control over tax revenue and credit-creation and were left unable to finance wars.⁵⁰ In this section I take a closer look at this political vision with reference to the example of Bitcoin and subject it both to internal and external critiques. To summarize, Bitcoin’s colorful paeans to decentralization, competition, and efficiency stand in stark contrast to its actual workings. Instead of a decentralized, efficient currency, Bitcoin is today mostly a speculative asset with few if any uses as currency but a substantial energy footprint generated by an oligopolistic set of miners. Secondly, even in as far as Bitcoin succeeds in privatizing money (or in particular if it were to succeed more generally), this would amount to a de-democratization of an essential public good. It is not clear why any regulatory authority or democratically-legitimated body should accept such a proposal.

The central claim of blockchain technology is that it “addresses the centuries-old problem of trust.”⁵¹ The “decentralized trust” of the ledger offers on this account a technological solution to the fragility of human relations. But while vowing to exist

⁴⁹ De Filippi and Wright, *Blockchain and the Law* 5. See also Primavera De Filippi and Benjamin Loveluck, “The Invisible Politics of Bitcoin: Governance Crisis of a Decentralized Infrastructure,” *Internet Policy Review* 5/3 (2016): 1-28.

⁵⁰ Popper, *Digital Gold*, xx-xv.

⁵¹ Michael Casey and Mariana Dahan, “Blockchain technology: Redefining trust for a global, digital economy.” <https://medium.com/mit-media-lab-digital-currency-initiative/blockchain-technology-redefining-trust-for-a-global-digital-economy-1dc869593308#.9fyo6ynbv>

without trust and hierarchy, existing cryptocurrencies have quickly given rise to informal structures of de facto governance that can be neither checked nor changed. Despite their self-presentation as currencies beyond the fickle bonds of human trust, existing cryptocurrencies have shown themselves to be heavily dependent on the trust of their respective community of adopters. After all, the quality of the ledger is only ever as good the quality of its members. As Nathaniel Popper has documented, it was only the mutual trust of the early Bitcoin community members that allowed it to take off in the first place.⁵² This entailed both networks of collective trust, as well as highly personalized trust in select Bitcoin opinion leaders, such as Roger Ver, the early cryptocurrency advocate humbly known as “Bitcoin Jesus.” Just as the politics of money is inescapable even a blockchain payment system requires trust: trust in the integrity of the underlying code, trust in any authority deciding about the exception (such as a fork in the blockchain), and trust in the liquidity of the respective currency. While the pure theory of blockchain systems speaks only of “decentralized trust,” personal authority and trust in individual reputation has been crucial to the success of various existing cryptocurrencies.

Once more, existing cryptocurrencies paint a picture that deviates markedly from their self-fashioning. Bitcoin’s mining algorithm, for example, highly favors large conglomerates of miners. As a result, neither the generation of Bitcoins nor the confirmation of Bitcoin payments is truly decentralized. Instead, its mining and the processing of payments tends to be heavily centralized with a small number of extremely large miners operating in an oligopolistic structure that strikingly resembles that of the

⁵² Popper, *Digital Gold* 77-80, 142.

global banking system.⁵³ Faith in decentralization has here obscured the ongoing existence of hidden central authorities, the trusting influence of individual opinion leaders, and more generally the forces of network power.⁵⁴ Cryptocurrencies continue to rely on centralized forms of authority but these are tacitly embedded in the design of the original algorithm, parasitically pre-supposed in the form of the existing legal system, and systematically obscured in the form of market power. Such hidden centralized authority has re-emerged most palpably in the case of hard forks.⁵⁵

If decentralization is one important rhetorical pillar of the Bitcoin vision, the implicit promise of efficiency is another. But again due to the way in which Bitcoin produces artificial scarcity through the solving of cryptographic puzzles there is an enormous intentional waste of resources that produces a breathtaking energy footprint. While the exact energy use of Bitcoin has to be estimated, the total computing power of the Bitcoin network is known. In early 2018, it stood at around 26 quintillion hashes per second. These can come either from highly efficient professional mining computers or from less efficient, older computers. Assuming that the entire computing power derives from the most efficient mining computer available, researchers have arrived an absolute minimum, lower bound estimate of Bitcoin's energy consumption. As of March 2018, this absolute lower bound was 2.55 GW.⁵⁶ For comparison, this is roughly as much energy as Ireland consumes.⁵⁷ Once we account for less efficient equipment and include the energy necessary to cool the computers, the estimate quickly rises to 8 GW

⁵³ Today, less than 1,000 or so accounts own 40 per cent of Bitcoin. Olga Kharif, "The Bitcoin Whales: 1,000 People Who Own 40 Percent of the Market," *Bloomberg* (December 8, 2017).

⁵⁴ Grewal, *Network Power*.

⁵⁵ De Filippi and Wright, *Blockchain and the Law*, XXX. [Vitalik Buterin and the Ethereum hard fork]

⁵⁶ Alex de Vries, "Bitcoin's Growing Energy Problem," *Joule 2* (May 2018), 801-9.

⁵⁷ International Energy Agency. World Energy Statistics 2017.

<https://www.iea.org/publications/freepublications/publication/KeyWorld2017.pdf>

(comparable to Austria's energy consumption).⁵⁸ This range suggests that Bitcoin's energy consumption is currently comparable to that of a medium-sized European country. (Nathan Ensmenger even estimates that Bitcoin today uses as much energy as the whole of Germany.⁵⁹) This is likely to rise quickly further thanks to the inbuilt increase in difficulty of the underlying cryptographic task. If the current trends persists, Bitcoin's energy footprint will double again by the end of 2018 at which point it will use up 0.5 percent of the world's electricity and will be on track to overtake the total amount of energy generated by all the world's solar panels.⁶⁰ Ironically, it is most profitable to mine Bitcoin in socialist countries with highly subsidized energy, such as China and Venezuela.⁶¹ To be sure, it is possible to envision cryptocurrency without such an enormously wasteful energy footprint but these would have to abandon precisely the pledge to cryptographically-enforced artificial scarcity so prized by those who treat cryptocurrencies as speculative assets with a fixed supply or as currencies with an in-built deflationary bias.

These discrepancies between Bitcoin's outward self-presentation as a decentralized currency outside of politics and its actual political internal workings as a wasteful speculative asset are not just caveats or exceptions. They point to a larger issue by serving as a reminder of the inescapability of politics and the way in which Bitcoin relies on recurrent attempts to hollow-out existing public goods from money to energy.

⁵⁸ de Vries, "Bitcoin's Growing Energy Problem," 801. See also Karl J. O'Dwyer and David Malone, "Bitcoin Mining and its Energy Footprint," ISSC 2014/CICT 2014, Limerick, June 26-27.

⁵⁹ Nathan Ensmenger, "Dirty Bits: An Environmental History of Computing," Talk at Yale University, March 26, 2016. See also Ingrid Burrington, "The Environmental Toll of a Netflix Binge," *The Atlantic* (December 16, 2015). <http://www.theatlantic.com/technology/archive/2015/12/there-are-no-clean-clouds/420744/>

⁶⁰ de Vries, "Bitcoin's Growing Energy Problem," 801-9.

⁶¹ To speak of "mining" thus turns out to be a painfully accurate description of the environmental impact of Bitcoin.

All this suggests that cryptocurrency operate fluidly within the political grid of monies instead of radically breaking with it. To be sure, the politics of Bitcoin is a peculiar one in the sense that it tends to deny its own political nature. But this in itself is nothing puzzling or new. Some of the most powerful political movements – not least classical liberalism – have tended to naturalize their political claims or hide them behind invocations of nature, history, and other forces that seem to be precisely beyond human control. To insist then that there can be no such thing as apolitical money is to refuse to take at face value the anti-political rhetoric of Bitcoin and to understand it instead as a powerful, if pernicious, political rhetoric in its own right.

V. Conclusion

The depoliticized vision of money embodied by Bitcoin could only rise to prominence in the context of the re-politicization of money during the financial crisis. This reframing, I have suggested, allows for situating the rise of cryptocurrencies as an echo of the unresolved questions and political contestations of the 1970s over the politicization and depoliticization of money, contestations that the Great Moderation had subdued and obscured. Only the post-crisis collapse of the depoliticizing facade of money opened up the space for Bitcoin's proposal to shield money against political discretion. Appreciating this allows us to become more attentive to cryptocurrencies' particular politics of depoliticization in the liminal space between private money and speculative assets. While cryptocurrencies are frequently framed as an escape from the politics of money, I have argued that this is highly misleading. Not only do cryptocurrencies engender their own politics of money, but they rely constitutively on the acquiescence of states, central banks, and other regulatory authorities. But even if cryptocurrencies will

not launch the political utopia of private money, blockchain technology is likely to deepen the global proliferation of shadow banking, tax evasion, and regulatory arbitrage that have emerged since the 1970s. Rather than revolutionizing the global monetary infrastructure by offering a new form of money, cryptocurrencies have instead emerged as highly risky, speculative financial games.⁶² As some observers have put it, these are first and foremost decentralized gambling machines masquerading as a technological breakthrough.⁶³

Cryptocurrencies's insistence on their status as currencies looks from this perspective suspiciously like a self-serving attempt to starve off stringent securities regulation, money laundering rules, and the taxation of capital gains. After all, the success of cryptocurrencies as speculative assets would be unthinkable without their light, preferential regulatory treatment that has rendered them highly desirable for purposes of money laundering, financial fraud, price manipulation, and an extraordinary misselling of risky securities to ill-informed retail investors. But the price rises of 2017 have exposed this strategy to an ironic predicament. While light regulatory treatment of cryptocurrencies hinges on their nominal status as currencies, their success as speculative assets has tended to undermine precisely such claims. Transaction costs are now so high and processing times so long as to render everyday Bitcoin transactions virtually impracticable. In a tell tale sign, in January 2018 the North American Bitcoin Conference

⁶² J.P. Koning, "Bitcoin as a Novel Financial Game," *American Institute for Economic Research* (June 6, 2018), available online: <https://www.aier.org/article/sound-money-project/bitcoin-novel-financial-game>.

⁶³ Lynn Parramore, "Jim Chanos on Fraud," *Institute for New Economic Thinking* (June 4, 2018), available online: <https://www.ineteconomics.org/perspectives/blog/jim-chanos-cryptocurrency-is-a-security-speculation-game-masquerading-as-a-technological-breakthrough>.

was forced to suspend payments in Bitcoin because these had become too expensive and slow.⁶⁴

It is worth stepping back at this point to recall the stakes involved. The Financial Crisis not only constituted a reminder of the political dimension of money and central banking but also once more revealed money's malleability. Since the crisis the seeming alchemy of fiat money, so successfully repressed, has once more stirred up a wariness and anxiety about the effervescent nature of money and credit. Faced with the fictitious nature of money it is tempting to be suspicious of its Faustian character. Calls for rooting money again in some precious commodity or an unalterable algorithm removed from human control respond to these anxieties. But this impulse should make us pause. After all, our political world is full of fictions. The body politic is "a fictitious body." The idea of a democratic people is just as much a fiction as are political rights or the state. None of these fictions are any less real for being fictitious. Appreciating that money is a fiction does not have to incapacitate but can point us to the poietic possibilities of shaping it as a public good according to our political values. The challenge of cryptocurrencies offers in this sense a rare opportunity to openly reflect about the kind of politics of money we want and the kind of electronic currency best suited to live up to our political ideals.

Word count: 7,933 words (including notes)

⁶⁴ Aaron Mak, "The North American Bitcoin Conference is No Longer Accepting Bitcoin Payments for Tickets," *Slate* (January 10, 2018), available at: <https://slate.com/technology/2018/01/the-most-important-blockchain-conference-of-the-year-wont-take-bitcoin-for-last-minute-sales.html>