The Political Economy of Bitcoin

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Bitcoin is a quite interesting technological artifact for which much could be said and, in fact, has been said in a variety of aspects: political, ideological, technical and so on. I know this for a fact as in my my last book – published last year in Portuguese and about to be published in English and Spanish this year – I try to build an interdisciplinary and multidimensional account of Bitcoin as a technical and monetary artefact, including its political economy, historical background, underlying ideas, and conditions of possibility. Though, considering the limits of this lecture, I decided to focus on the macro-structural level of analysis, in what can be defined as a *Political Economy of Bitcoin*.

On these grounds, based on the theoretical understanding of money as a social relation, I will defend the argument that Bitcoin is unable to establish itself as an alternative to the current monetary system as it does not meet elementary requirements of money, despised by the neoliberal ideology that sustains it. That is, despite its declared search for a substitution of world money, for monetary stability against the supposedly 'inflationary' state money and for 'depoliticization', decentralization and deconcentration of monetary power, what is empirically observed is precisely the opposite: low volume and range of circulation, great instability against state money, transactional inefficiency and greater relative concentration of political and economic power among its users. This the non-fulfilment of the radical neoliberal aspirations of Bitcoin, I argue, shows that the attempt by its creators and enthusiasts of emptying money of its social content, that is, to 'neutralize' it, in capitalism, is just not feasible.

Despite these remarks, Bitcoin, as a 'problem', offers us a new and interesting opportunity to return to the fundamental debate about the complex nature of money within our societies.

The ideas and concepts underlying Bitcoin

Although broadly and fundamentally being a financial innovation and an highly speculative asset, Bitcoin is, technically speaking, a peer-to-peer decentralized blockchain-based exchange system. As you may probably know how it works and also the technical aspects behind it, I'll move, as said, to other dimensions, more relevant within the objectives of this exposition. That is, as the first and most prominent cryptocurrency, Bitcoin seeks to project a system that is secure and anonymous, by means of a combination of mathematical algorithms and encryption systems, that take the place of humans in the formulation of policies for the issuance and regulation of money, as well as in the verification of accuracy in monetary exchanges. It is therefore planned to operate as a system free from the need for trust in another human being, or any kind of third party. The arbitration and imposition of regulations are left to machines. One of the reasons that so much work is dedicated to the resolution of complex encryption problems for the implementation of virtual currencies as Bitcoin is precisely to guarantee the secure execution of contracts: when both the parties in a transaction are anonymous, non-discriminatory machines should take the place of the final arbiter between them.

From the theoretical and rhetorical points of view, two theories underlie Bitcoin: Friedrich Hayek's defense of the privatization of money and, above all, the monetarism espoused by Milton Friedman and his followers. In a very simplified definition, in the first, we have a defense that every private entity should be allowed to issue its own currency that therefore would dispute the consumer preference within monetary markets. In the second, the idea that not only inflation, but any kind of economic crisis and unbalances, are always, in the end of the day, government's fault. So, for monetarists, inflation is always a matter of wrong state money supply.

In that sense, as an 'experiment', enabled by the recent economic, political and socio-technological framework, Bitcoin seeks to diffusely put these ideas into practice. Its protocols, algorithms and other operating mechanisms are founded, then, on an ideological triumvirate that is essentially composed of: i) the neutrality of money, ii) (digital) metalism and iii) technological fetishism, a triumvirate that is directly inscribed in the technical code of its system, in spite of any political-ideological plurality that may be present in its community of users and developers. More importantly, following the conceptual background that inspired the creation of this cryptocurrency, and, again, from a simplified monetary perspective, this means going beyond the well-known image of autonomy for the Central Bank to argue in defense of its very abolition, that is, its substitution by a technical mechanism, an impersonal regulation, a protocol, a machine. In fact, it's probably not a mere coincidence that, at the start of the 1990s, Milton Friedman himself suggested that the US Federal Reserve should be replaced by a computer – programmed to increase the offer of money based upon the increase in the population. In sum, based upon this package of ideas, what Bitcoin seeks, in the end, is the existence of an apolitical or non-political currency, that free monetary exchange from banks, states, economic policies, distributive conflicts, that is, from politics itself.

In order to highlight the material impossibility, under advanced capitalism, of an apolitical money and, therefore, the completely illusory character of the technocratic utopia for the economy and society that pervades Bitcoin, we must to first apprehend what regular money concretely is. By doing this, we can finally, learn why, and how, it is impossible for Bitcoin to establish itself as an alternative to the current monetary system, as its enthusiasts often defend.

Money as social relation

Money is, in abstract terms, a social relation, and, as that, a complex mechanism for the representation and realization of value, that is, the *general equivalent*, the abstract and universal representation of wealth. Being this, it is pervaded by violence and trust, coercion and ideology, as well as by a significant symbolic dimension. Not the veil, the neutral object that technically facilitates commodity exchange, that emerges from Say's Law and the Quantity Theory of Money, placed at the core of the classical and neoclassic economic views on money. On the contrary, money is a social relation intertwined in social power and, by that, an object of desire in itself. From this standpoint, we can address Bitcoin's alleged monetary nature, thus demonstrating why this cryptocurrency is not, and cannot be money, in the fullest sense of the term.

In capitalist economies, money is simultaneously a public good and a private object. In this condition of "public good", it is a benchmark for all acts of production and exchange of commodities, as well as for the measurement of wealth. This is why it should be subject to the norms of issuance, circulation and destruction that continuously support and reaffirm its universality as a standard for prices, means of circulation, and general form of wealth. In concrete terms, capitalist money is therefore based upon two components: one private, the money of banks (debt, credit money), and the other public, the money of the Central Bank (fiduciary state money). As such, the reproduction of money as a general equivalent implies the combination of private ('decentralized') operations and a process of public centralization.

Without this, monetary instability could result in a currency crisis. In the event of monetary crises, what public intervention does is offer 'social support' in order to keep the bank currency and the state currency at equal levels (in order for the latter to be recognized by society). There thus arises the indispensable role of "lender of last resort", the role of the public organ, which cannot, under this arrangement, be repealed or occupied by another (private) agent.

The State's monetary policy is therefore submitted to a 'social adjustment' with two main objectives: on the one hand, to provide the money needed for the process of capitalist accumulation, and, on the other, to act in such a way as to guarantee that the public continues to recognize this money as the universal form of wealth. This is a process that is pervaded by social struggles and located, as Michel Aglietta and André Orléan point out, between the boundaries of violence and trust. As a broad public reference for all private transactions, money cannot be directly and linearly controlled by any private agent at the expense of being dysfunctional as such a reference. These are precisely the needs and dynamics that the theory and practice of Bitcoin seems to ignore. Such negligence and the limitations that arise therefrom, are revealed with extra clarity when we analyze the functions of money in the case of Bitcoin.

Despite it appearing to be just another means of exchange, Bitcoin's defenders frequently promote it as a 'new form of money'. But money (as a *general equivalent*) and means of exchange are not the same thing. Money has to perform certain functions in order to properly fulfill its role in the capitalist economic dynamic, as in the economics textbooks: unit of account, means of payment, store of value. These functions of money are consequences of its nature (as a general equivalent and monopolizer of exchange capacity) rather than the opposite: what money *does* succeed what money *is*. Because money monopolizes the interchangeability between the markets, it also measures value, facilitates exchange, liquidates debts, and so on. There is, therefore, an internal cohesion between the functions of money.

Why Bitcoin is not (and cannot be) money

Among others, one possible and straightforward way to visualize why Bitcoin is not and cannot be money is to address its capacity to properly perform the basic functions that regular, universal money do.

To begin with, amongst the functions mentioned, it is not difficult to accept that Bitcoin could eventually serve as a means of exchange, albeit in limited form. Ultimately, some products and services can be, and in fact are being, exchanged for Bitcoins. We know that, in the virtual environment, anything can serve as a means of exchange in circles with relatively limited reach.

Means of exchange of this nature are to be found everywhere and in an increasing number of forms (here we can think of miles programs offered to travelers by airline companies, different awards packages for consumers, precious metals and stones, and also community and cooperative currencies). None of these alternative currencies, however, represent much of a threat to the national-state management of “sovereign” money. It so happens that Bitcoin’s defenders frequently confuse money with a means of exchange, whilst this is just one of its many other functions.

The fact that Bitcoin serves – or has the ability to serve – as a unit of account (or measurement of value) is something that can certainly be questioned. The number of markets that quote their prices solely and exclusively in Bitcoins is extremely small. Even in obscure *Deep Web* markets, the commodities sold in Bitcoin are always quoted in relation to their price in national currency (especially the world’s benchmark currency, the US dollar). Or in other words, despite the prices of these products being nominally quoted in Bitcoins, they actually vary, not only in relation to the shifts in the price of Bitcoin, but, above all, in the price of the commodity itself in dollars – demonstrating once again, its need for convertibility (and reproduction of money as a general equivalent). Here, certainly, Bitcoin’s lack of legal recognition as a monetary instrument by the State decreases the eventual possibility of it actually fulfilling this function.

The store of value function (or means of hoarding) is one of the most interesting of the obstacles facing Bitcoin, above all because it is the *locus* of materialization of a very strict way of understanding money that is clearly expressed in the structure and the use of the *software* itself. In spite of its enthusiasts placing in this attribute great expectations for the success of Bitcoin as a form of money, it is clear that its great instability prevents it from objectively fulfilling this monetary function. Thus it is that the defense of Bitcoin as a viable store of value, once again reveals its ideological content. Let us take a look at this in more detail.

This concerns an aspect that relates to a direct analogy between money and gold. We know that Bitcoin was planned to stand in direct opposition to the ‘monopoly’ that Central Banks and commercial banks have on the issue of money and, moreover, to run in parallel with a ‘libertarian’ political agenda, against the ability of States to collect taxes and monitor the financial transactions of their citizens. Those who have been developing Bitcoin believe that this can avoid wealth – allegedly hoarded by hard-working and frugal individuals – of being ‘eroded’ by the ‘parasitic’ actions of the State that, by continually issuing more and more money to finance increased spending, leads society into endemic inflation (an indirect and unjust form of tax, they argue) and, therefore, to a real dilapidation of this hoarded wealth. Based upon this logic, therefore, Bitcoin is presented as a ‘real’, solid and stable store of value (as gold supposedly would be, since the State cannot simply issue it). This is why a large proportion of its defenders are attracted to it: along the lines of the fetish for gold as a form of money, that is, metalism. In that case, digital metalism.

Initially, the manifest objective seems to be the search for a stable currency with a price that does not fluctuate uncontrollably. But as the price of Bitcoin cannot be modulated, except by market transactions, this is simply not possible, leading to a high level of volatility and, by that, to the dominance of the speculative function over its monetary functions. It is here, therefore, that we find a striking contradiction: despite the developers and users defending its superior stability as a form of wealth, Bitcoin is revealed as being exactly the opposite.

By the way, it is possible to say that the principal reason that this cryptocurrency has become so well-known is precisely its high volatility (that opens up the possibility for astronomical gains in the short-term). Despite this characteristic often being understood by its community of enthusiasts as a ‘positive’ sign (since, despite its sharp fluctuations, the price has been following a strong, aggregate, upward path), this instability has been a serious problem for Bitcoin. Our thoughts turn, for example, to the 1,3 thousand per cent valorization that occurred in 2017, and to the subsequent fall of more than 52 per cent through until the end of April 2018, to not mention the recent 2020/2021 unprecedent uprising. In that sense, someone who stores their savings or profits in Bitcoins has very few reasons to expect the current price to be maintained in the short term, in fact quite the contrary. Its principally speculative use thus precludes its function as a means of hoarding and, as such, it loses the social recognition necessary for it to operate as a general equivalent.

Furthermore, in some cases, especially where we see the frenzy that these highs provoke, there appears the argument in defense of the viability of Bitcoin as a new form of money that could, moreover, substitute the others, making it hegemonic. What these speculative surges prove, however, is precisely the opposite: given its great instability, Bitcoin is unable to properly execute any of the essential functions of money, since it does not meet any of the basic economic (and possibly political and ideological) pre-requisites for its eventual dissemination.

This is because the continuity of the exchanges and payments, of the hoarding, and also the production itself, demands a certain general guarantee that the value will be maintained. Let us imagine, for a moment, the remuneration of revenue, profits and salaries in Bitcoins – one of the fundamental tasks of money within the capitalist mode of production. Given its great instability, this would be simply unworkable, entirely disrupting the economic activity. One of the main reasons that the Central Banks exert their influence on money is precisely to guarantee that it continues to act as a relatively stable gauge of value, or in other words, that it is reproduced as a general equivalent and abstract form of wealth. But the very existence of a Central Bank, as we have seen, is inconceivable within the monetarist ideology of Bitcoin. The result of this is that the lack of regulation (and its incredible volatility), that is so highly praised by the cyberlibertarians, in fact prevents this cyberlibertarianism from being used in the way its defenders argue.

The Bitcoin 'experiment' thus demonstrates the basic principle that the more 'free' the markets are, the greater the tendency to produce drastic cycles of boom and bursts. Without regulatory structures that discourage the use of an instrument such as investment (hoarding), any financial instrument, including gold, would be subject to wildly different forms of speculation, as well as the consequent extreme cycles of expansion and collapse – precisely what the actions of the Central Banks seek to avoid.

The truth, again, is that, despite the arguments in its favor generally concentrating on its characteristics as a potential form of money, the enthusiasm surrounding Bitcoin arises not from its use as a currency, but as a highly speculative investment (not to mention its significant use in illegal and criminal activities, tax evasion etc.). By the definition of money that I presented before, we can understand that the functions of money as a means of hoarding/store of value and means of exchange and circulation, despite being complementary, are also potentially contradictory. In the case of Bitcoin, this objectively means that the more attractive this cryptocurrency becomes as a financial investment, the less viable it becomes as a potential form of money.

If Bitcoin were eventually to be regulated to the extent that it could function as a stable store of value and also guarantee that serious crashes or frauds, as have occurred, be avoided, it could, maybe, in the future, be useful as a global payment system, within the molds that already exist, as is the case with the PayPal system and so many others. But this, of course, would not make it 'money' (a general equivalent), nor would it be able to undermine the global political and economic structures, as it would wish. If, however, it were to be free from all forms of regulation, Bitcoin would continue to be a dangerous and obscure environment for the majority of people – but not, of course, for those economic agents that are more accepting of risk; in general, the owners of large sums of capital such as *hedge funds* and large financial institutions (nothing that would, therefore, be exactly 'earth shattering' from an economic point of view).

Finally, as for its function as eventual global money, we know that some observers and enthusiasts of Bitcoin have suggested that this cryptocurrency could, one day, come to challenge the global system that uses the US dollar as its reserve currency, and upon which the economic power of Washington is largely based. There is no evidence whatsoever to support this claim. Let's take a look at this in more detail.

We know that maintaining the convertibility of the national currency into others implies a certain central management of the national currency, an activity that works to preserve it as a general equivalent. The economic power of States therefore underpins the monetary power of the general equivalent: without the State and the material power that supports it (an obvious limitation of Bitcoin), money cannot be reproduced as a general equivalent. We are also aware of that the international circulation of commodities and currencies presupposes an international currency of circulation and reference, which relates to the values of the various national currencies; basically a global money. Currently, this money is the US dollar, which in a certain way, as a benchmark, reflects the power relations found in the international monetary-financial system. Thus it is that money is also seen as a point of international geopolitical tension and dispute.

Due to the economic and political power that underpins it, the currency of the hegemonic State necessarily tends to perform a privileged role as the principal form of global money (precisely because it tends to be a solid store of value). And due to the fact that foreign economic agents' need for global money to be able to make their international payments and investments, foreign Central Banks' need to maintain reserve funds in this currency to ensure their ability to absorb any eventual shocks in the globalized capitals markets and to deal with obstacles in the exchange market that could harm their position in international commerce. This hierarchy that exists in the interstate system is therefore enmeshed in the relations of global capitalist production. The tendency for the interests of capital in hegemonic regions to be intertwined with the interests of a hegemonic State in the inter-state system, and the compelling benefits of seigniorage to this hegemonic power, imply that capitalist world money is a geopolitical weapon, not only a neutral instrument of trade.

Considering that the hegemonic States are not on the point of disappearing, and that it is absolutely unthinkable that a hegemonic capitalist State, whatever happens to it, would voluntarily forsake its enormous monetary 'exorbitant privileges', Bitcoin will never be capable of threatening the US dollar in its position as world money. As we know, currencies are supported not only by the power of the institutions, rituals and forms of belief, but also by the economic and political power of the countries, which certainly includes its military structures.

Furthermore, besides there being no direct relationship with the fiscal activity of the State and its material coercive power, and no relationship with the need for the economic agents to access the international trade circuits, there is also, as is the case with Bitcoin, no relationship, however remote, with the production of value (labor) in the economies.

That understood, there still remains one more final aspect to be addressed: Bitcoin's aim to become an 'honest' and 'apolitical' form of money.

Trusting in a distributed *design*, Bitcoin is intended as a form of money that is immune to political manipulation, an 'apolitical' currency, free from the problems that weigh down the other 'corrupt' forms of money. Bitcoin's developers and enthusiasts claim that this is 'just' a code, not controlled by anyone. The fact is that there has never been money without politics involved (and there may never be). Even though the choice to remove politics from money is, in itself, a political move. In summary, the technological determinism that is found in the idea of an apolitical money, as is the case of Bitcoin, constitutes an ideology *par excellence*.

The fact that it is possible for local communities to create alternative currencies to a certain degree of success (in terms of their positive local economic impacts), does not, of course, mean the elimination of the political dimension or that a 'depoliticized' money can exist, one capable of handling all the economic exchanges performed in an advanced industrial society.

We know that the industrial revolution led to an enormous reorganization of socio-productive life. Given the increased need for capital to be able to make projects viable, within this mode of organization of economic activity, large-scale credit has become an indispensable need for production – something that has been especially valid since the second industrial revolution, a period during which enormous corporate oligopolies have been constructed. It is this credit, or in other words, large sums of money, that have allowed the financing of the production of capital goods, provided support for the new patterns of consumption and supported the constant technological and productive innovation. Thus it is that, even when the capitalist economies operate within different forms of the gold-standard, the banks continue to create and increase the mass of money considering a certain stock of gold by means of a growing volume of loans. It should be noted that this concerns an implicit need for the productive system itself.

Contrary to the naïve economic views behind Bitcoin, in modern capitalist economy, output is not independent of expectations, and demand is not always abundant enough to absorb the produced output. In that sense, investment is not uni-directionally determined by savings, and savings are not determined by the rate at which present consumption is deferred to the future. As this is an economy involving not only exchange but also production and investment, it is these two activities – production and investment – that preclude the possibility of an apolitical money.

So here is the fundamental dilemma that always faces any contemporary capitalist State in relation to monetary management: on the one hand there is the need to more or less steadily reproduce money as a general equivalent, and on the other the need to regulate, activate and promote capitalist accumulation. At least from the economic catastrophe of the 1930s, it was understood that one possible way of ensuring a balance between the poles of reckless speculation and undesirable stagnation lay in the rational control of the supply of money. But this 'rational' control has to consider the fact that different monetary policies unequally affect the different social classes and sectors, and can lead to alterations in the political economy and the distribution of incomes in a society. As such, this necessarily political control needs to be exercised by means of collective and democratic mechanisms, being subjected to the will of the majority and guided by legitimate social objectives.

We should again remember that money intermediates in the processes of labor and production, and inserts the different social classes into the economic dynamic (the capitalists through the sale of the commodities produced by the workers, and the workers by the sale of their labor force), meaning it establishes a fundamental social relationship within capitalism. The management of money in a society is thus inevitably pervaded by distributive conflicts.

Some final remarks

I hope to made clear at this point why Bitcoin is not and cannot be money in the proper definition of the term and, by that, why it cannot establishes itself as an alternative to the current monetary system. To conclude this talk, I would like to stress upon some other consequences of this analysis.

With the adoption of the philosophy behind Bitcoin, that sees the issuance of money as being separate from the economic cycle and the political process, it is natural that the very idea of monetary policy loses its reason for being, since the control of money ends up being 'exogenous' to any social and collective decision-making process (which does not, however, stop a concentrated few from benefiting).

As I hope it is clear by now, Bitcoin adds the widely-recognized political agenda in favor of an 'independent' Central Bank to the paroxysm; it does so, as Milton Friedman hoped, by guaranteeing this independence through computerized automation of the issuance of money. Taking this principle to its ultimate conclusion, this means that, in practice, by abolishing the Central Bank, direct control of money is deposited firmly in the hands of a small economic elite, free from any obligation to political or social responsibility.

Furthermore, considering how Bitcoin attempts to emulate the gold-standard, it is plausible to foresee that, if an important and large part of a society's economic activity were to be performed using this form of 'money' (which is, again, hard to imagine), the old economic problems of the 1930s would creep back into play. The financial sector has already started to create derivatives, that is, speculative bonds based on Bitcoins, and bubbles are clearly forming. Another alternative would be for the Bitcoin economy to enter into a deflationary spiral, which, although it would provide cause for a certain amount of enthusiasm amongst some of its users, it could also lead the majority to simply abandon this form of cryptocurrency, and ultimately to its collapse. Furthermore, by removing human decision-making systems from the issuance and management of money, the Bitcoin algorithm runs the risk of crystallizing, and even worsening, the growing inequalities at the base of contemporary capitalism.