# Hayek's 'Denationalization of Money' - a Praxeological Reassessment

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"Facts per se can neither prove nor refute anything. Everything is decided by the interpretation and explanation of the facts, by ideas and the theories."

—Ludwig von Mises (1981) p. 459.

"Much of contemporary politics is based on the assumption that government has the power to create and make people accept any amount of additional money it wishes."

—Friedrich August von Hayek (1978), p. 32.

"[I]f fiat money could not continue indefinitely, I would not have to come here to plead for its abolition."

—Murray N. Rothbard (2005), p. 149.

In 1976, Friedrich August von Hayek (1899 – 1992) published Choice in Currency. A Way to Stop Inflation, followed in 1978 by a revised and enlarged version titled Denationalisation of Money: The Argument Refined. An Analysis of the Theory and Practice of Concurrent

Currencies. Therein, Hayek calls for replacing the state's money production monopoly with a free market in money. Hayek argues that money is a good (a commodity) like any other, and that private issuers would provide better money than a state money production monopolist. His proposal has received wide attention even in mainstream economics – but has been rejected as 'impractical' or 'politically undesirable'.¹ Among economists of the Austrian School of Economics, the reception of Hayek's proposal has been ranging from outright rejection to contingent support.² The purpose of this article is to reassess Hayek's competitive currencies proposal on the basis of the *scientific method of economics* put forward by Ludwig von Mises (1881 – 1973).

To Mises, economics is an *a priori* science, and he uses the term *praxeology* (the *logic of human action*) for the branch of knowledge represented by economics.<sup>3</sup> Praxeology takes its starting point from the irrefutably true proposition that 'humans act'. The latter is an *a priori*: Its undeniable truth value, or justification, is independent of experience.<sup>4</sup> On praxeology Mises notes (Mises 1998, p. 32): "Its statements and propositions are not derived from experience. They are, like those of logic and mathematics, a priori. They are not subject to verification and falsification on the ground of experience and facts. They are both logically and temporally antecedent to any comprehension of historical facts." Mises's scientific method of economics, built on praxeology, provides a rigorous logical justification, making it possible to distinguish between *correct* and *false economic theories* without having to engage in any empirical testing.<sup>5</sup>

While Hayek makes a valid point – namely that economically and ethically acceptable (or: *sound*) money can only be provided by the free market –, he does not build *Denationalisation of Money* on praxeological but on a form of 'ultra-subjectivist' thinking. This, in turn, causes problems. First, Hayek does not succeed in coming up with a consistent elaboration of how a free market in money would work. Second, he fails to make a logically rigorous, principled case for a free market in money (and thus a principled case against money monopolized by the state), thereby inviting undue criticism of his proposal.<sup>6</sup> Perhaps most important, Hayek holds an illusionary view about the *true nature of the state* when it comes to monetary affairs: Praxeological thinking reveals that the state – *the territorial monopolist of coercion and ultimate* 

<sup>1</sup> On this topic see, for instance, Issing (1999), Vaubel (1986), Cagan (1986), and Greenfield and Yeager (1983).

For instance, Rothbard (1992) rejects Hayek's denationalization proposal outright, while Murphy (2005) takes a more constructive view, emphasizing the benefits of Hayek's plan.

See Mises (1998, pp. 11 - 142), Hoppe (2007), Rothbard (2009, pp. 1 - 77), and Rothbard (2011, pp. 29 - 80). Note in this context that (Cohen and Nagel 2002, p. iv) "logic is the autonomous science of the objective though formal conditions of valid inference."

<sup>4</sup> See, for instance, Höffe (2007), Immanuel Kant, pp. 60 − 74; Tetens (2006), Kants "Kritik der reinen Vernunft".

For further explanations see Hoppe (2006b, pp. ix –xxiv, esp. pp. xvi – xix).

Someone critical of Hayek's point of departure – namely that experience has shown that the state misuses his money production monopoly – may simply argue: Well, let us just get better people to decide on monetary policy, or impose proper rules on these decision makers, and you will see how great and satisfactorily a state's money production monopoly will work! To get better money, there is no need for switching to a free market in money! This line of argumentation is expressive of (Hoppe 2006, p. 362) "the mentality of social relativism" and follows directly from the *positivist doctrine*: It doesn't allow formulating and defending a *principled case* either for or against something.

decision-making – and a free market in money are incompatible.

The rest of the article has been structured as follows. The scientific method Hayek applies to economics will be briefly outlined (II.). What follows is an overview of the development of Hayek's views on monetary affairs, in which Hayek's 'denationalizing money' proposal will be outlined (III.). Then, Hayek's proposal will be subjected to praxeological critique, which yields the following conclusions (IV.): (i) The idea that Hayek's 'paper tickets' could become money will be rejected; (ii) free banking means competition in money substitutes, not in money proper, as Hayek suggests; (iii) Hayek's idea that money issuers should be allowed to create their currencies via credit will be rejected on economic and ethical grounds; (iv) Hayek's notion that there is something like 'stable money' will be dismissed; and (v) it will be outlined that Hayek holds an illusionary view about the state's willingness to give up its money production monopoly. As a digression, the emergence of bitcoin as a new 'money candidate' will be briefly addressed (V.). The article ends with some lessons to learn (VI.).

#### Hayek's scientific method of economics

Hayek rejects Mises's idea that the proper scientific method of economics is praxeology. In a letter to T. W. Hutchison (1912 – 2007) Hayek writes (Hayek 1981): "The main intention of my 1936 lecture was to explain gently to Mises why I could not accept his a priorism. Curiously enough, Mises, who did not readily accept criticism from his juniors, accepted my argument but insisted that it was not incompatible with his view which, by implication, he restricted to what I called the Logic of Choice or the Economic Calculus. I left it at that, but I did want to say that I was never a priorist, though I would still insist that part of the essential knowledge of the economist or the social theorist general is derived from his given familiarity with the processes of human thinking."<sup>7</sup>

Further, in an interview Hayek notes: "I became one of the early readers [of Karl R. Popper's Logik der Forschung (1934)]. ... And to me it was so satisfactory because it confirmed this certain view I had already formed due to an experience very similar to Karl Popper's. Karl Popper is four or five years my junior; so we did not belong to the same academic generation. But our environment in which we formed our ideas was very much the same. It was very largely dominated by discussion, on the one hand, with Marxists and, on the other hand, with Freudians. Both these groups had one very irritating attribute: they insisted that their theories were, in principle, irrefutable. Their system was so built up that there was no possibility – I remember particularly one occasion when I suddenly began to see how ridiculous it all was when I was arguing with Freudians, and they explained, "Oh, well, this is due to the death instinct." And I said, "But this can't be due to the death instinct." "Oh, then this is due to the life instinct." ... Well, if you have these two alternatives, of course there's no way of checking whether the theory is true or not. And that led me, already, to the understanding of what became Popper's main systematic point: that the test of empirical science was that it could be refuted, and that any system which claimed that it was irrefutable was by definition not scientific. I was not a trained philosopher; I didn't elaborate this. It was sufficient for me to have recognized this, but Quoted from Caldwell (2004, pp. 420 – 421).

when I found this thing explicitly argued and justified in Popper, I just accepted the Popperian philosophy for spelling out what I had always felt. Ever since, I have been moving with Popper."8

As far as his scientific method is concerned, Hayek qualifies as an 'anti-rationalist' and 'ultra-subjectivist', according to Hans-Hermann Hoppe (Hoppe 2006, pp. 260 – 261): "Hayek's categories and theories refer to purely subjective phenomena and are invariably elusive or even illusory. He is not concerned about acting with things but about knowledge and ignorance, the division, dispersion, and diffusion of knowledge, alertness, discovery, learning, and the coordination and divergence of plans and expectations. The external (physical) world and real (material) events have almost completely disappeared from his view. Hayek's categories refer to *mental* states of affairs and relationships, completely detached from and compatible with *any* real physical state of affairs and events. ... Even if Hayek's science of knowledge is possible, it appears at best irrelevant because it is praxeologically meaningless. At worst it is intellectually pernicious in promoting relativism." It is fair to say that Hayek, by following a version of Popper's *critical rationalism*, seems to be flirting with the tradition of positivism-empiricism-falsificationism, which, however, is an inconsistent, a self-contradictory doctrine, being incompatible with the logic of human action. <sup>10</sup>

#### Hayek on monetary affairs

Hayek, in the course of his long and prolific academic carrier, changed his views on monetary issues quite dramatically. His book *Monetary Nationalism and International Stability* (1937) is motivated by the problems that came with the breakdown of the international (pseudo-) gold standard, the emergence of 'monetary nationalism'<sup>11</sup> and the accompanying international monetary and economic instability. Hayek proposes an anti-free market solution, speaking out in favor of a de facto single state-sponsored world central bank (Hayek 1937, p. 94): "[A] really rational monetary policy could be carried out only by an international monetary authority, or at any rate by the closest cooperation of the national authorities and with the common aim of making the circulation of each country behave as nearly as possible as if it were part of an intelligently regulated international system."

As a 'second best' solution, Hayek favors a *rule-based* monetary policy, thereby aligning a national monetary policy's discretion with the monetary policies of other countries (Hayek 1937, pp. 93 – 94): "[S]o long as an effective international monetary authority remains an Utopian dream, any mechanical principle (such as the gold standard) which at least secures some conformity of monetary changes in the national area to what would happen under a truly international monetary system is far preferable to numerous independent and independently regulated national currencies. If it does not provide a really rational regulation of the quantity

- Hayek on Hayek (1994, pp. 42 43). See in this context also Hayek (1980).
- 9 See also Hoppe (2012).
- For an extensive and thorough rejection of positivism-empiricism-falsificationism see Hoppe (2006a); for a brief summary see Polleit (2013).
- "By Monetary Nationalism I mean the doctrine that a country's share in the world's supply of money should not be left to be determined by the same principles and the same mechanism as those which determine the relative amounts of money in its different regions or localities." Hayek (1937), Monetary Nationalism, p. 4.

of money, it at any rate tends to make it behave on roughly foreseeable lines, which is of the greatest importance." That said, Hayek is not only in full support of the state monopolizing money, he also considers competition between the various nationalized monies as being undesirable.

In *The Constitution of Liberty* Hayek remains in full support of the idea that the state should be in control of monetary affairs (Hayek 1960, p. 324): "Why, it is sometimes asked, should we not rely on the spontaneous forces of the market to supply whatever is needed for a satisfactory medium of exchange as we do in most other respects?" Hayek's answer is that such an option would no longer be open to us (Hayek 1960, p. 324): "Perhaps, if government had never interfered, a kind of monetary arrangement might have evolved which would not have required deliberate control: in particular, if men had not come extensively to use credit instruments as money or close substitutes for money, we might have been able to rely on some self-regulating mechanism. This choice, however, is now closed to us." Hayek even explicitly writes that a free market in money (Hayek 1960, p. 324) "is not only politically impracticable today but would probably be undesirable if it were possible."

In *Denationalization of Money* (1978), Hayek performs a U-turn: He recommends ending the state's money production monopoly, replacing it with a free competition of currencies. His argument is that the state invariably misuses its money production monopoly (Hayek 1978, p. 34): "I do not think that it is an exaggeration to say that history is largely a history of inflation, and usually of inflations engineered by governments and for the gain of governments." To Hayek, inflation is a cause of economic and political disruptions, rather than a cure to recessions and depressions (Hayek 1978, p. 102): "The past instability of the market economy is the consequence of the exclusion of the most important regulator of the market mechanism, money, from itself being regulated by the market process." It is against this backdrop that Hayek calls for ending the state's monopoly of money (Hayek 1978, p. 130): "The abolition of the government monopoly of money was conceived to prevent the bouts of acute inflation and deflation ... .

It proves on examination to be also the much needed cure for a more deep-seated disease: the recurrent waves of depression and unemployment that have been represented as an inherent and deadly defect of capitalism."

The starting point of Hayek's competitive currencies proposal is the idea that money is no different from any other good (with money being the most marketable good), and that better, or *sound*, money can be supplied only by free competition between private issuers, but not by a state money production monopolist – as experience has made all too clear, according to Hayek. The constitutive elements of Hayek's competitive currencies concept are: (i) everyone would be free to offer media competing for money status; (ii) Everyone would be free to demand the kind of money that serves his purposes best (with no legal tender laws in place); and (iii) there is "free

Hayek is, of course, fully aware of the dangers for individual freedom and liberty that come with the state interfering with monetary affairs – see, for instance, Chapters 'IV The persistent abuse of the government prerogative' and 'XXIII Protection against the State' in his *Denationalization of Money*. On Hayek's view about the dangers that come with the state – which is the characteristic feature of socialism – see his famous *The Road to Serfdom*, published in 1944.

banking", meaning a free market in banking services (as far as the deposit and credit business are concerned). In a truly free market in money, Hayek holds, *sound money* would emerge – as no one would demand bad money.

Hayek sees the danger that the state might interfere and make impossible a free market in money once it has taken off (Hayek 1978, pp. 124). For instance, the state may within its own borders try to replace competitive currencies with its own money. Or, if the competition of currencies is an international business, the state may disrupt the free flow of monies across borders. Hayek seems to think that a free market in money could be upheld, however, if money issuing institutions would be located in small wealthy states, as the latter would have little interest in intervening (Hayek 1978, pp. 124 – 125): "[I]t would clearly be important that banks with headquarters in different countries should compete with one another. The greatest confidence, at least so long as peace was regarded as assured, would probably be placed in institutions established in small wealthy countries for which international business was an important source of income and that would therefore be expected to be particularly careful of their reputation for financial soundness."

### Praxeological criticisms

In what follows, five critiques will be levelled against Hayek's competitive currencies proposal, based on praxeological considerations. The first critique ("Ignoring the regression theorem") rejects Hayek's idea that 'paper tickets' could become money. The second critique ("Free banking means competition in money substitutes") shows that in free banking there is competition in money substitutes rather than (as Hayek suggests) in money proper. The third critique ("Failing to factor in the economics and ethics of money production) refutes Hayek's idea that money issuers should be allowed to create their currencies via credit on economic and ethical grounds. The fourth critique ("Falling victim to Fata Morgana of stable money") rejects Hayek's notion that there is something like 'stable money'. Finally, the fifth critique ("Misjudging the benevolence of the state") reveals that Hayek holds an overly optimistic, actually unjustified, view about the state's willingness to give up its money monopoly. Critique 1: Ignoring the regression theorem

In Hayek's competitive currencies proposal, everyone would be allowed to offer any kind of goods in the hope that they will become money, the universally accepted means of exchange. Wouldn't that lead to chaos, as many monies would enter the market? The answer is: no. The *demand for money* decides what kind will become money. People will demand only those goods as money which, from their individual viewpoint, fulfill the money functions best. What is more, people will decide for a single commodity, for the commodity that is most widely used in exchange: "[T]here would be an inevitable tendency for the less marketable of the series of goods used for media of exchange to be one by one rejected until at last only a single commodity remained, which universally employed as a medium of exchange; in a word, money."

Hayek's idea that 'paper tickets' with new names and marks on them (say, '100 Hayek's', or a '500 Smiths') could become money is misguided. First and foremost, it is incompatible with

the regression theorem as outlined by Mises in his The Theory of Money and Credit (1912). According to the regression theorem, money must emerge from a commodity, an entity that was valued for its non-monetary service before it was chosen as a means of exchange (Mises 1998, pp. 402 - 404). <sup>14</sup> The regression theorem tells us that 'new money candidates' in the form of printed paper tickets could not become money. No one would accept '100 Hayeks' or '100 Smiths' as money, as no one would know their exchange value. Even the removal of legal tender laws wouldn't do the trick. Rothbard therefore concludes (Rothbard 1992, p. 4): "Hayek's plan for the denationalization of money is Utopian in the worst sense: not because it is radical, but because it would not and could not work."

Is it possible that Hayek's proposal opens up, in principle, a promising development: namely that commodity money emerges spontaneously from voluntary action in the free market? Rothbard rejects such possibility. The reason is that people have become used to the *names* of the official currencies (such as, for instance, 'dollar', 'euro' etc.). This, in turn, makes it difficult for any *money candidate* with a *new name* to become money. Existing fiat currencies would retain a competitive advantage. In contrast to Hayek (who allows the state to stay in the money business), Rothbard therefore argues for a full-scale privatization of money to provide a level playing field for making a free market in money possible (Rothbard 1992, p. 5): "There is only one way: to link the dollar once again to a useful market commodity. Only by changing the definition of the dollar from fiat paper tickets issued by the government to a unit of weight of some market commodity, can the function of issuing money be permanently and totally shifted from government to private hands."

## Critique 2: Confusing money proper with money substitutes

Hayek thinks that in a free market there would be competition between private money issuers, each issuing its own currency. 15 In this context, however, it is important to distinguish between money proper and money substitutes. In a free market in money, people with free choice would decide what good(s) will become *money proper* (such as, for instance, gold or silver). Then, under free banking, money warehouses would spring up, offering services in terms of storage, settlement and safeguarding money proper. If, for instance, Mr. Smith decides to deposit 10 gold ounces with a money warehouse, he will receive in return a money warehouse receipt (a money substitute). That said, money warehouses will compete in terms of money substitutes

No one would accept any entity as money unless it has purchasing power. The purchasing power of money, in turn, is determined by the supply of and the demand for money. But how can there be a demand for money (which assumes that a money has purchasing power already), if the purchasing power of money is determined by the supply of and demand for money? Mises provides the solution to this circulation problem. He rightly points out that money's purchasing power has a time dimension: The demand for money in, say, t can be explained by the fact that money was demanded in t-1. If one logically goes back in time (regress), one arrives at the first day when a commodity became used as money. This commodity could only become money because it had been valued as a non-monetary commodity before. That said, money cannot be created "out of thin air" in the first place. It cannot be established by government decree or a 'social contract'. Money must emerge out of a commodity that had a market price (exchange value) prior to its monetary use - the regression theorem is of praxeological nature, it is a priori.

See Hayek (1978, chap. IX, pp. 51 ff). 15

Example		
Assets	Mr. Smith	Liabilities
Gold oz	10	
	-10	
Money warehouse receipt	+10	
Money warehouse		
Outstanding money warehouse receipt	+10	

rather than in terms of money proper, as Hayek suggests. 16

Assume Mr. Smith holds 10 gold ounces. He decides to deposit the 10 gold ounces with a money warehouse. In Mr Smith's balance sheet, the gold stock declines, while his stock of money warehouse receipts increases. The money warehouse, in turn, acts a custodian. It would *not* record the gold on its balance sheet (but in its ledger).<sup>17</sup>

Critique 3: Failing to factor in the economics and ethics of money production

Hayek would allow competitive currencies to be *loaned into existence* or *printed up* (Hayek 1978, p. 52): "[A] number of competing issuers of different currencies would have to compete in the quality of the currencies they offered for loan or sale." There are two major problems with Hayek's credit-based currencies, though. First, the regression theorem tells us that unbacked (paper) money cannot emerge voluntarily and spontaneously. Only *money substitutes* can be brought into circulation through credit expansion, with issuers of such money substitutes operating on fractional reserves. This, however, would be to considered *illegal* (for property right reasons).<sup>18</sup>

Second, if loaned into existence, Hayek's competing currencies would basically amount to monies created 'out of thin 'air'. They would suffer from the same economic and ethical deficiencies as state controlled fiat monies (Hülsmann 2008). These monies would, for instance, be inflationary and set into motion a boom-bust-cycle. Admittedly, however, money produced through credit expansion under free market conditions might be less harmful compared to state monopolized fiat money: People would have a choice in terms of money, and in a free market for money the incentive for money issuers engaging in fractional banking would be greatly diminished as there would be no central bank acting a 'lender of last resort'.

Of course, one may think of a provider of money proper (say, a gold mine), which also runs a money warehouse. In this case, however, both businesses would represent separate businesses, economically speaking. It should be noted that money warehouses won't pay any interest on customers' deposits (as is typically the case in today's fiat money regime) but will charge customers for services provided: Customers pay a fee for, say, storage, safekeeping and settlement services offered by money warehouses.

<sup>17</sup> This insightful illustration of can found in Rothbard (1983, 88-89).

It should be noted that some economists think that fractional reserve banking is legitimate like, for instance, Selgin and White (1996), while others consider it as fraudulent such as, for instance, Hoppe, Hülsmann, Block (1998); also Rothbard (1983, pp. 94-110). I personally side with the argument put forward by Huerta de Soto (2006, pp. 4-6).

Would it be possible to print up new unbacked paper tickets (called, say, "Hayeks") and sell them against goods and services? The regression theorem would say: *no*. The reason is that no one would know what the exchange value of these pieces of paper would be, so that no one would accept them. In addition, one has to take into account that the issuer of unbacked, intrinsically valueless paper tickets could amass a fortune, simply by exchanging his paper tickets against valuables. He would enjoy a 'get-rich-quick scheme'. Provided people are not out of their mind, the idea that unbacked paper tickets *could become money by selling them into circulation* is a praxeological impossibility.

## Critique 4: Falling victim to the Fata Morgana of 'stable money'

Hayek assumes that money would be in continuous demand as long as people expect its purchasing power to be *constant*, and he holds that money issuers should keep the purchasing power of their monies stable by regulating the quantity of their issues (Hayek 1978, p. 52). However, in the realm of human action is no such thing as money with a 'stable' purchasing power (Mises 1998, p. 219): "There is no fixed point in this ceaseless fluctuation other than the eternal aprioristic categories of action. It is vain to ... argue as if there were in the universe eternal values independent of human value judgements and suitable to serve as a yardstick for the appraisal of real action."

The idea of a stable purchasing power of money is, praxeologically speaking, impossible, and the same holds true for the idea of stabilizing the purchasing power of money.

Hayek suggests that issuers of competing currencies may engage in buying and selling their currencies to keep the purchasing power of their monies stable (vis-à-vis a predetermined set of vendible items). For instance, a currency issuer would increase (reduce) his quantity of money if the (arbitrarily chosen) price index falls (rise). If this would the case, Hayek's competing currencies would become a source of economic trouble (Rothbard 2009, pp. 847 – 851). For changes in the quantity of money affect prices of different goods at different times and to different degrees. They necessarily distort relative prices and thus the economy's production and employment structure. In trying to keep the purchasing power stable, Hayek's competing currency issuers would trigger the same economic problems as those caused by central banks' monetary policies.

It should be noted here that there is no need for money to have stable purchasing power, as changes in money's purchasing power per se do not make monetary calculation impossible (Mises 1998, p. 225.): "For the sake of economic calculation all that is needed is to avoid great and abrupt fluctuations in the supply of money. Gold and, up to the middle of the nineteenth century, silver served very well all the purposes of economic calculation. Changes in the relation between the supply of and the demand for the precious metals and the resulting alterations in purchasing power went on so slowly that the entrepreneur's economic calculation could disregard them without going too far afield." Mises points out the fact that the supply of money affects its demand: The smaller the changes in the supply of money are, the smaller are the

changes in the demand for money. For this reason alone, people can be expected to prefer, say, gold (whose quantity cannot be changed arbitrarily) as money over Hayek's competing paper tickets (whose quantity can be changed arbitrarily).

#### Critique 5: Misjudging the benevolence of the state

When it comes to Hayek's views about the state, some general remarks seem to be in order. Hayek is aware of the danger the state represents to individual freedom and prosperity. He does not argue for abolishing the state, though, but recommends (institutionalized) measures for reducing the damage caused by state action. To this end, Hayek's favors an *exit option* (Hayek 1978, p. 125): "The ultimate protection against the tyranny of government is that at least a large number of able people can emigrate when they can no longer stand it." That said, Hayek seems to hold the idea that *competition among nation states* would effectively prevent any nation state from becoming a tyranny. Upon closer inspection, however, this idea doesn't hold water. This becomes obvious by reviewing Rothbard's 'new' theory of the state, rooted in praxeological thinking.

According to Rothbard (1982, p. 171), the state is "that organization which possesses either or both (in actual fact, almost always both) of the following characteristics: (a) it acquires its revenue by physical coercion (taxation); and (b) it achieves a compulsory monopoly of force and of ultimate decision-making power over a given territorial area." The praxeological perspective brings to the surface that the true nature of the state is about *expropriation*. However, as no expropriation can increase social utility, *welfare economics* must call for its abolition of the state – rather than just trying to restrain its *bad actions*. Once the state is *mistakenly* accepted as being a just institution, however, it will be impossible to limit its expansion (Hoppe 2006, p. 229): "[E] very minimal government has the inherent tendency to become a maximal government." This begs the question: *Would the state take kindly to a system of competitive currencies?* 

The money monopoly is perhaps the most important pillars on which modern day's state power rests. As the monopolist of money produced "out of thin air", the state (Rothbard 2005, p. 64) "can then appropriate resources slyly and almost unnoticed, without rousing the hostility touched off by taxation. In fact, counterfeiting can create in its very victims the blissful illusion of unparalleled property." In fact, the money monopoly is the primary tool of unprecedented state aggrandizement, as (Rothbard 2005, p. 95) "money is the lifeblood of the economy; it is the medium for all transactions. If government dictates over money, it has already captured a vital command post for control over the economy, and has secured a stepping-stone for full socialism."

Rothbard, by applying the *progression theorem*<sup>19</sup>, explains why and how the state acquires the money monopoly. In a nutshell, it all starts with the state monopolizing the mint. Then the state provides banks with the (legal) privilege of operating on fractional reserves. In times of crisis, the state allows banks to suspend *temporarily* the redeemability of bank money into money proper (gold). In a final blow, the state makes the public to hand over their gold in

The term progression theorem has been coined by Joseph T. Salerno (Salerno 2010, p. 49).

exchange of government issued banknotes and ends the redeemability of outstanding bank money into money proper. It was admittedly a rather lengthy process, but eventually the states basically all over the world have succeeded in replacing free market commodity money with their own fiat monies. This begs the following question: Would a state voluntarily give up its money production monopoly?

A praxeological analysis reveals that *currency competition is simply not in the state's interest*. For a free market in money would not only limit the state's power to use fiat money for tax and redistributive purposes. It would in particular run counter to the state's effort of securing support from the majority of the people via pursuing a policy of *divide et impera*.<sup>20</sup> What is more, a free market in money would also carry the risk that the state's fiat money might be driven out of the market altogether by better monies. In view of the *true nature of the state*, therefore, one cannot logically deduce that the state would allow for something like competitive currencies, a truly free market in money. In fact, nothing short of abolishing the state would be required for making possible a free market in money.

To his credit, Hayek points out that a fundamental change in the prevailing thinking about monetary affairs is needed for making currency competition possible (Hayek 1978, pp. 133 – 134): "[I]t will need deeper insight into the superficially invisible effects of inflation to produce the result required to achieve the abolition of the harmful powers of government on the control of money. There is thus an immense educational task ahead before we can hope to free ourselves from the gravest threat to social peace and continued prosperity inherent in existing monetary institutions." However, the really important task would be to educate people about the *praxeological* impossibility and unacceptability of the state, as this would open up the possibility for a truly free market in money to emerge.

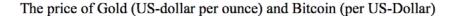
#### Digression: Bitcoin

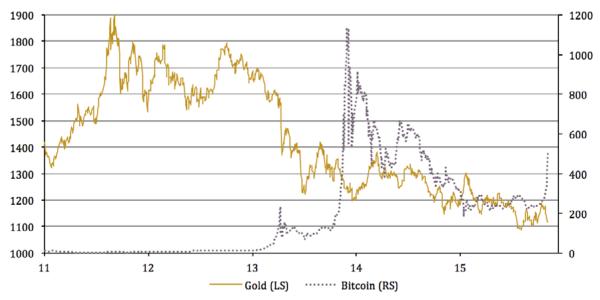
The cyber unit bitcoin is perhaps the most prominent example of the free market having come up with a 'new candidate' that aspires to become money. While bitcoin has not yet become money (the universally accepted means of exchange), some people expect that it might succeed in doing so at some stage. In what follows, bitcoin will be briefly reviewed against some praxeological considerations as far as currency competition is concerned.

The regression theorem. – To become money (at some point), bitcoin has comply with the regression theorem. This means that bitcoin must have been valued for its non-monetary purposes *before* it was used as money (Mises 1998, pp. 402 - 404). Such a case can actually be (re-)constructed quite easily.<sup>21</sup> However, the ultimate proof cannot be provided by experience.

<sup>20</sup> See in this context Hoppe (2010, esp. pp. 173-96).

All it needs to meet the requirements of the regression theorem is that bitcoin was, before it was valued for its monetary services, traded just for the sake of its non-monetary services. For instance, assume that in the first transaction ever, the buyer bought bitcoin simply out of curiosity, just to see how it might work technically. The first bitcoin price (in, say, US-dollar) was thus established, opening up the possibility of bitcoin becoming valued for its monetary utility.





Source: Bloomberg. Period: January 2011 to 4 November 2015.

For the regression theorem is an *a priori*: It follows from the axiom of human action. All that can be said is that *if* bitcoin has assumed money status at some point, it can only have done so by having been valued *before* solely for its non-monetary purposes.

Fractional reserve banking. – The decentralized bitcoin transaction ledger does not permit an artificial increase (or: the counterfeiting) of bitcoins. In a bitcoin regime fractional reserve banking would only be possible if bitcoin banks (acting as bitcoin warehouses) extend loans denominated in bitcoins, thereby issuing *bitcoin substitutes*. The latter would represent a claim on bitcoin proper. It is questionable, however, whether bitcoin substitutes would attract any demand. What is more, there would be no central bank which could bail out fraudulent bitcoin issuers. This, in turn, should keep bitcoin banks from operating on fractional reserves. That said, fractional reserve banking can be expected to be a very minor issue in a bitcoin money regime.

'The repression issue'. – Paradoxically, one of bitcoin's greatest sponsors is the state: The attractiveness of bitcoin can be explained in great part by the fact that it is beyond the state's reach. Bitcoin's exchange value cannot be manipulated by the state, and bitcoin transactions cannot be traced, taxed and sanctioned by the state. As things currently stand, people can exchange their fiat money freely against bitcoin and vice versa at bitcoin market places. This allows a competition between fiat monies and bitcoin. What, however, if the state prohibits banks from transferring customers' fiat money to bitcoin market places? People could circumvent such a repression by exchanging their fiat money into banknotes and exchanging the latter against bitcoin. What, however, if the state bans cash? People could still opt for exchanging their bank fiat money against, say, gold and silver and exchange the latter against bitcoin. That said, if bitcoin becomes the preferred means of exchange, state repression can do only so much to stem

the tide.

"Colored bitcoins". – The "blockchain" technology provides a truly revolutionary means of transferring assets among people: the "colored bitcoin" (Polleit 2016). A colored bitcoin, in contrast to an ordinary bitcoin, represents a certain asset such as, for instance, physical gold. The latter can thus be made available for day-to-day transactions – for purchases and sales in supermarkets and on the internet – simply by transferring a gold-backed bitcoin from the bitcoin wallet of the buyer to the bitcoin wallet of the seller. The colored bitcoin would actually serve as a money substitute. In fact, it could be the blockchain as such that might become a disrupter of the state's money monopoly – in the sense of a Hayekian competition of currencies system.

#### Lessons to learn

Hayek's call for a free market in money deserves support, as there are no economically and ethically convincing arguments for the state holding the coercive monopoly of money production. Unfortunately, however, Hayek builds his case on an improper scientific method of economics. This leaves his competitive currencies proposal not only vulnerable to critique, it also prevents Hayek from coming up with a logically consistent elaboration of how (well) a free market in money would work. It is therefore not too far-fetched to assume that Hayek's proposal might have actually backfired, having done more harm than good to popularize the idea of replacing the state's coercive money monopoly by a free market in money.

Following a scientific method of 'radical subjectivism', Hayek fails to see the true nature of the state (as we know it today): namely that the state is the territorial monopolist of coercion and ultimate decision-making. As such, the state wouldn't take kindly to a free market in money. This is because a competitive currencies regime would challenge, in fact threaten, the survival of the state's fiat money – with fiat money being one of the state's most important power tools. A praxeological reassessment of Hayek's competitive currencies proposal reveals that a free market in money would in fact require nothing less than abolishing the state (as we know it today).

Reassessing Hayek's proposal for competitive currencies brings to the surface how important the *proper scientific method* is in the field economics. Ludwig von Mises has shown that economics can only be understood unambiguously as an a priori science, which takes its starting point from the irrefutably true proposition that humans act (that is the axiom of human action). His scientific method of economics, derived from praxeology, reveals that economically and ethically acceptable money can only be provided through the free market. The conclusion is: Without understanding economics as a priori theory, there is no intellectually rock-solid case to be made for a free market in money.

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