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Rothbard's gold obsession

Abstract

Generally, libertarians oppose the use of fiat money, defined as a form of money imposed by government decree and not backed by any physical commodity. Rothbard is a well-known libertarian author who argues for the abolition of the FED and the restitution of a Gold Standard. It is easy to understand libertarians' opposition to the government's forceful monopolization of the money supply: as it constrains individuals' freedom from choosing the currency they most prefer, issuing their own currencies, and deciding upon that which constitutes money.

I will argue that Rothbard's vehement advocacy for commodity backed money is misplaced within his anarcho-capitalist ideology, and that similarly, this conclusion can be extended to libertarianism more generally. Rothbard is a Market Anarchist who opposes the very existence of the state, in such a system gold would become the only form of money *iff* all individuals independently chose gold as money, for otherwise the state would have to impose and enforce its adoption. I will present Hayek's proposal for the denationalization of money, i.e. a competitive system of privately issued currencies as a more suitable currency regime for Market Anarchism and for libertarian systems more generally.

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Introduction

As with all other ideologies, libertarianism encompasses a quite heterogeneous group of thinkers, including philosophers, economists, politicians and all kind of non-academic liberty enthusiast, who despite sharing some core values, more often than not, disagree on what the ideal social structure should be like. Furthermore, most libertarian political philosophers do not even touch upon the topic of money in society, which is the issue at hand. This is why I focus a large portion of this research on a single author, one who very well represents the predominant libertarian view of money: Murray Rothbard and his endorsement for the gold standard. Most of today's advocates of commodity backed money seem to be in complete agreement with his arguments and throughout his career he published numerous academic and non-academic works on this topic. Some of today's libertarian authors and Austrian economists supporting Rothbard's ideas for 100% gold standard are Paul, & Lehrman, (1983), Huerta de Soto & Stroup (2006, pp. 726-727), Barnett, and Block (2008), and Bagus, Howden and Block (2013), Hence, focusing on this single author will serve to draw more general conclusions that apply to many of his modern followers.

Murray Rothbard was an American economist of the Austrian school who unofficially attended von Mises seminars and faithfully followed von Mises line of thinking throughout his career. Rothbard rejected mainstream economics' empirical methodology and favored Praxeology instead: an entirely a priori or deductive methodology which was generally followed by Austrian economists. Rothbard allegedly coined the term anarcho-capitalism, and although I could not find academic evidence of this, there is plenty of evidence in his writings showing that he considered himself an anarcho-capitalist. He famously stated that "true anarchism will be capitalism, and true capitalism will be anarchism"[1].

Rothbard's work has been very influential for libertarians in both philosophy and politics; his most notorious works including 'Man, economy, and state', 'the ethics of liberty' and 'for a new liberty: the libertarian manifesto' have each around 1000 academic citations. Perhaps more importantly, his arguments are continuously repeated by republican and libertarian politicians in America[2] who advocate for the abolition of the FED, the restitution of a Gold Standard, and the establishment of a 100% reserve banking system.

My purpose is to show that his vehement criticism for non-commodity backed money is misplaced within his anarcho-capitalist ideology. The remaining of the thesis is organized as follows: after a short motivation, section 1 gives some conceptual background; section 2 locates Rothbard within the liberty tradition while at the same time reviewing the essential libertarian literature; section 3 describes Rothbard's conception of money; section 4 presents a thought experiment in which I show that non-commodity backed money can be compatible with anarcho-

[1] See The New Banner (1972). 'Exclusive Interview with Murray Rothbard'. Vol. 1, No. 3, special supplement. A Fortnightly Libertarian Journal.
[2] See Ron Paul's (2009) 'End the FED', and most recently, Republican presidential candidates and Senators Ted Cruz and Rand Paul in their interventions on CNBC's GOP presidential debates.

capitalism, namely, a version of Hayek's proposal for the 'denationalization of money'; section 5, elucidates how Rothbard could have responded to my arguments if he were he alive; section 6 concludes.[3]

[3] I am grateful to Willem van Dijk for providing extremely useful comments during the EIPE seminar that helped me draw this research's conclusions. I am very grateful to my tutor and advisor who provided me with thorough comments that were essential for the quality of this research.

Motivation

My curiosity for this topic began some years ago when I first read Capitalism and Freedom (Friedman, 1962). Not surprisingly, Friedman opposes the idea of entrusting the power of controlling the money supply to an independent institution of authoritarian character like a Central Bank:

> Any system which gives so much power and so much discretion to a few men, [so] that mistakes — excusable or not — can have such far reaching effects, is a bad system [...] to believers in freedom just because it gives a few men such power without any effective check by the body politic — this is the key political argument against an independent central bank… ...To paraphrase Clemenceau, money is much too serious a matter to be left to the central bankers. (Friedman, 1962, p. 50)

What was surprising to me at the time is that he did not propose any market alternative to independent central banks, instead he proposed a rule-based system in which the money aggregates grow at a constant but arbitrary annual percentage rate ("some number between 3 and 5[%]", Friedman, 1962, p. 54). This constant rate of increase in the money supply would be equivalent to the long-term trend growth of real GDP (or potential GDP growth), plus the long-term inflation target, making it similar to today's proposal for a nominal GDP target[4]. Admittedly, Friedman emphasizes that his proposal is not a "be-all and end-all of monetary management, as a rule, which is somehow to be written on tablets of stone and enshrined for all future time" (Friedman, 1962, p. 54). But more like a rule of thumb, absent any better one to ensure that monetary policy ceases to be a threat to a free society.

As I became more acquainted with libertarian literature, I was shocked and unconvinced by the massive advocacy of libertarian philosophers for the Gold Standard. That encouraged me to do further research, which led me to Hayek's proposal for the "Denationalization of money" (1978): his idea, although radical and highly speculative, seemed to me to be much more consistent with libertarian philosophy than that of returning to a commodity based monetary system.

As I hinted at earlier on, this research topic is not only philosophically relevant but also policy relevant, given the number of libertarian-leaning Republican politicians in America, who following Rothbard ideas, advocate for the abolition of the FED and the restitution of a Gold Standard within a 100% reserve banking system.

[4] See Scott Summer (2012): the case for nominal GDP targeting.

Section 1: conceptual background

In this section I introduce a few basic concepts I refer to throughout the thesis: what libertarianism is and the two main reasons for defending liberty according to libertarians. To set the stage I also show how Rothbard distances himself from other libertarian philosophers.

The Stanford Encyclopedia of Philosophy defines libertarianism as "a political philosophy that affirms the rights of individuals to liberty, to acquire, keep, and exchange their holdings, and considers the protection of individual rights the primary role for the state… agents initially fully own themselves and have certain moral powers to acquire property rights in external things."

Libertarianism focuses on negative liberty and the role of the state, if a state is to exist, is to protect that negative liberty rather than to promote positive liberty[5]. There are two main reasons for justifying liberty as understood by libertarians:

- **Natural rights or deontological libertarianism** is based on certain moral rights individuals possess as human beings and therefore precede the existence of the state. The original idea of the law of nature is usually adjudicated to John Locke's idea of self-ownership. Individuals own themselves and therefore also own their labor, which allows them to appropriate external goods by mixing them with their labor. "Being all equal and independent, no one ought to harm another in his life, liberty, or possessions", this is Locke's (1689, Treatise, p. 289) non-aggression principle, which is considered a core value of libertarianism. Robert Nozick with his Anarchy, State and Utopia (1974), is probably the most important scholar in contemporary philosophy representing this strand of libertarianism.

- **Consequentialist libertarianism**, unlike natural rights libertarians, who justify liberty on foundational philosophical principles, consequentialists justify libertarianism to the extent that they believe libertarian policies lead to the best possible outcomes for all individuals. Some notable economists like Ludwig von Mises, Friedrich Hayek, James Buchanan, and Milton Friedman are considered libertarian on consequentialist or even utilitarian grounds.

Throughout the thesis I separate deontological and consequentialist arguments. Although one could show that certain deontological principles like natural rights can lead to suboptimal outcomes for society, this would not convince someone who believes in such rights as a matter of principle, and vice versa.

Rothbard was a natural rights libertarian, he borrowed Locke's idea of self-ownership and the non-aggression principle, but unlike Nozick, for Rothbard private property is absolute, thus, he

[5] Isaiah Berlin (1958) distinguishes between "freedom to" do whatever one wishes (positive liberty) versus "freedom from" others, absence of external interferences by other people (negative liberty).

rejected the Lockean proviso, which I will shortly explain. Despite being a natural rights libertarian, Rothbard also made extensive use of consequentialist arguments, particularly when justifying his support for the Gold Standard, as it will become clear later on.

On Rothbard's own words, as expressed in the Libertarian Manifesto (1973, pp. 33-34):

> "The right to self-ownership asserts the absolute right of each man, by virtue of his (or her) being a human being, to own his or her own body; that is, to control that body free of coercive interference. Since each individual must think, learn, value, and choose his or her ends and means in order to survive and flourish, the right to self-ownership gives man the right to perform these vital activities without being hampered and restricted by coercive molestation."

Robert Nozick (1974, p. 175), probably the most highly regarded libertarian philosopher, set a limit to self-ownership claiming that everyone should be allowed to appropriate unowned goods as long as "there be 'enough and as good left in common for others' ". He named this condition Locke's proviso, as it was taken from Locke's Second Treatise of Government. Rothbard, on the other hand, wrote that Nozick's adoption of Locke's proviso was unfortunate (Rothbard, 1982, p. 244). According to Rothbard there is no way of knowing objectively whether others are actually worse off when we appropriate all the unowned, in his own words: "Locke's proviso may lead to the outlawry of all private ownership of land since one can always say that the reduction of available land leaves everyone else, who could have appropriated the land, worse off." Further, he claims that even "if latecomers are worse off… that is their proper assumption of risk in this free and uncertain world." (Rothbard, 1982, p. 244)

As I shall show in section 2, Rothbard philosophy brings about the most extreme version of libertarianism, 'anarcho-capitalism': a complete rejection of the state which leaves no room even for Nozick's 'ultra-minimal state'. This, together with Rothbard's absoluteness of property will be key to counter Rothbard's rejection for privately produced non-commodity backed money. In section 4 and 5, I show that there are alternative monetary arrangements that do not violate libertarian's natural rights.

Section 2: Rothbard within the liberty tradition

Mack and Gaus (2004) present the main political strands of libertarianism as subsets of a larger tradition of political thought constituted by classical liberalism together with libertarianism, which they call the 'liberty tradition'. The following is probably the most compact description of the liberty tradition extracted from Mack and Gaus (2004, p. 119):

> "All members of the liberty tradition maintain that everyone ought to enjoy the freedom of deploying one's property as one pleases – in any enterprise one pleases – as long as that deployment does not infringe upon anyone's rightful liberty."

Mack and Gaus identify four main strands within the liberty tradition: market anarchism (Rothbard's anarcho-capitalism), minimal statism (Nozick's ultra-minimal state), taxing minimal statism (Nozick's minimal state) and small statism (classic liberalism)[6]. I find these institutional characterizations to be extremely useful for my purposes since it allows me to criticize an author's proposed monetary system based on whether or not it is compatible with the entire set of institutional arrangements that the author advocates for. Thus, I will briefly describe these four strands of the liberty tradition and show how Rothbard's thinking fits in it.

In order to develop his utopically just world, Nozick begins from Locke's state of nature, and asks himself "if the state did not exist would it be necessary to invent it?" (Nozick, 1974, p. 3) According to Locke the state of nature is one of perfect freedom in which individuals are only bound by the law of nature: "no one ought to harm another in his life, health, liberty, or possessions" (Nozick, 1974, p. 10).[7] That is the natural limit of individual freedom. If someone violates someone else's rights, the victim has the right to punish the transgressor in a proportionate manner. The problem with this state of nature, i.e. before the state comes into existence, is to objectively determine what a proportionate punishment or compensation entails; the victim of a transgression will always have incentives to overestimate the harm while the offender will have incentives to underestimate them, thus, absent the state, conflict is bound to ensue.

Locke argued that these conflicts could be resolved in the state of nature by creating communal associations to mediate as umpires between private conflicts, these associations are nevertheless only likely to work in very small and highly cohesive societies; what if there is a dispute between two communities?

[6] Mack and Gaus reject left-libertarianism as part of the liberty tradition. Left-libertarianism "holds that unappropriated natural resources belong to everyone in some egalitarian manner" (Vallentyne and van der Vossen, 2014). Rather than discussing whether left-libertarianism can be considered part of the liberty tradition or not, I take Mack and Gaus' arguments for granted since, at least to my knowledge, left-libertarians do not develop the monetary side of the economy within a left-libertarian system and thus fall out of the scope of this research.

[7] Locke (1689, sect. 6 and 7) as quoted by Nozick (1974, p. 10).

Seen from the libertarian perspective, in the free market world of the state of nature, individuals soon realize that there is a potential market for the provision of protective services for their natural rights, which turns to be a service to be produced and traded as any other. Here is where anarchists distance themselves from the rest of the liberty tradition. Mack and Gaus (2004, p. 119) explain that anarchists argue “that a market regime of multiple, competing, protective agencies will not produce disorder and strife - so long as there is a strong demand for the orderly, peaceful, and just resolution of disputes.” As in any other competitive market, competing providers of legal and law enforcement services will tend to produce the highest quality services, inasmuch as partial judges and rogue security agencies would be driven out of the market. Or at least, that is what anarchists argue.

On the other hand, Nozick argues that the provision of protective services is a natural monopoly (it presents increasing returns to scale). If a dominant protective agency were to arise, by merging with others after having entered into bilateral agreements to solve disputes, for example, most individuals would prefer to hire its services over those of smaller agencies since they would feel better protected by the dominant agency’s superior firepower, as well as its larger network of clients and bilateral arrangements with other independent agencies that allow it to resolve disputes in a peaceful and cost efficient manner. So far we are still in an anarchist world since these protective services are only provided to those who voluntarily agree to pay for them.

Nozick then argues that a dominant agency (or a set of them) will have incentives to prevent other independent agencies from punishing or seeking reparations from its clients unless they have been proved guilty and proportionate reparation has been determined by the dominant agency’s procedures. Having superior firepower, the dominant agency can prohibit all other agencies from providing protective services “in the name of the procedural rights of its clients... [Or for the sake of] “Suppressing activities that pose even a moderate risk of violating [its clients’] rights” (Mack and Gaus, 2004, p. 120). By claiming this monopoly over the legitimate use of force, the dominant agency has turned into the ultra-minimal state. Nozick and the defenders of this ultra-minimal state claim that such exclusion from participating in the competitive production of protective services “involves no initiation of coercion and, hence, contravenes no liberty tradition norms” (Mack and Gaus, 2004, p. 120).

Anarchists, on the contrary, believe that such monopolization of the legitimate use of force does entail coercion. Rothbard is of this line of thinking; he dedicated an entire chapter of his book ‘the ethics of liberty’ (1982, Ch. 29) to criticize Nozick’s justification of the monopoly of protective services, which he entitled 'Robert Nozick and the immaculate conception of the state’. But let us first continue with the rise of the minimal state before proceeding with the anarchists’ criticisms.

The argument for transitioning from the ultra-minimal to the minimal state can be made as a case for pure public goods, that is, a good that is non-excludable and non-rivalrous. A pure public good is non-excludable because once it is produced it is not possible to exclude individuals from consuming it, regardless of whether they pay for it or not; and it is non-rivalrous as its use by one individual does not reduce its availability to others. National security is a typical case of a public good, by defending the sovereignty of a territory from potential invaders, the armed forces defend every single resident within their territory regardless whether they pay for their services or not and independently of whether there are one million or 100 million inhabitants in the territory.

Going back to the state of nature, if there is a monopoly of protective services in a given region (regardless of size), this dominant protective agency effectively acts as the armed forces of its locality since it must defend the land and private property from potential invaders. Think of a walled city in which some individuals refuse to pay for the protective services of the walls and the soldiers guarding it. Most individuals would end up free-riding the protective services, since, with each additional free-rider, protection costs would increase for those who are still paying, giving them more incentives to free-ride as well. This is known in the economic literature as the tragedy of the commons: even though a majority of individuals would rather pay than not have city walls at all, this pure public good would not be produced in equilibrium since most citizens would free-ride it given its non-excludable character. Hence, each household would be obliged to pay for its own private home-security system: think of very dangerous cities in the world where all the well-off live in houses surrounded by high walls with electrified fences, security cameras, and bodyguards while the poor have no choice but to face crime.

The consequentialist argument for the provision of public goods is almost self-evident: it is likely to be in a situation in which everyone would be better off by being coercively forced to pay taxes to a monopolist provider of law enforcement who protects their rights, rather than having to pay for less powerful independent private protective services, this coercive act would thus be a Pareto improvement. But this argument does not suffice for convincing deontological libertarians like Rothbard, who would argue that coercing the city's inhabitants to pay for the walls would be a punishable act of aggression[8]. For Rothbard and other deontological libertarians, a Pareto improvement cannot justify a violation of individuals' natural rights, hence the importance of Nozick’s effort to establish the state from a natural rights’ perspective.

To achieve this, Nozick proposes to condition one of the core libertarian rights: ‘If someone violates someone else’s rights, the victim has the right to punish the transgressor in a proportionate manner’, if and only if, the punisher knows that the transgressor is guilty. Of course having absolute certainty of culpability is rarely the case except when a transgressor is caught red-handed. Natural rights have nothing to say with regard to what the acceptable procedural rights are, all we can say is that someone who intends to exact compensation or punish a transgressor ought to use the most reliable available procedure to determine the alleged transgressor’s guilt and what appropriate compensation or punishment entails. This is so as punishing an innocent person would be a violation of natural rights in itself.

[8] Following Locke's non-aggression principle (1689, Treatise, p. 289) and Rothbard's own version of the same principle, I assume that an 'act of aggression' is a violation of individual's natural rights, except when aggression is an act of self-defence. According to Rothbard (2003, p. 66) "the fundamental axiom of libertarian theory is that no one may threaten or commit violence (‘aggress’) against another man's person or property. Violence may be employed only against the man who commits such violence; that is, only defensively against the aggressive violence of another".

To further illustrate this point I think one can easily draw certain parallels with statistics. An individual might incur in one of two types of error when judging another's culpability: declaring an innocent person guilty (as well as sentencing a guilty person to endure a more than proportionate punishment), which I will call type 1 error; or declaring a criminal innocent, type 2 error. The former is a violation of a natural right, while the latter is not: imprisoning an innocent person mistakenly would be equivalent to kidnapping, just as fining someone by mistake would be equivalent to stealing from that person, and condemning an innocent to capital punishment would be murder; while letting a criminal get away with a transgression does not violate anyone's rights: victims have a right to punish but not a duty to do so. The problem is that the judging procedure that minimizes type 1 error is that which lets all criminals get away with their crimes (maximizing type 2 error). Thus, it is imperative to set an arbitrary limit to the share of criminals that could be let free (type 2 error) if one is to retain the natural right to punish an aggressor, which is crucial for deterring violations of natural rights. At the same time, one must place a higher emphasis on minimizing type 1 error as this kind of error is a violation of rights in itself. An optimal procedure could be one that minimizes the combined number of right violations (weighted by their severity): those that are directly crimes and those that comprise type 1 errors.

If the condition of using reliable procedure is accepted for legitimate punishment, then a client may "authorize his agency to act to enforce his procedural right… a protective agency may punish a wielder of an unreliable or unfair procedure who (against the client's will) has punished one of its clients, independently of whether or not its client actually is guilty…" (Nozick, 1974, p. 107). According to Nozick, a dominant agency can then legitimately prohibit independents from exacting compensation as it deems independents' procedures unreliable or unfair. It can do so without violating anyone's rights as long as we accept the 'iff condition' of using acceptable procedures; this condition applies to all individuals, but it so happens that the dominant protective agency (or confederation of agencies) is in a unique position of judging which procedures are acceptable and declares all procedures apart from its own illegitimate in order to protect its clients' rights.

By prohibiting independents from exacting compensation from its clients, the dominant agency claims the legitimate monopoly over the use of force and becomes the ultra-minimal state. But this ultra-minimal state is not yet a proper state since it does not coercively tax its citizens and it does not provide any public good to those who do not voluntarily pay for its services. Nozick's objective is to justify the existence of the state from a deontological perspective, i.e. without violating anyone's natural rights, which in turn is relevant for my purposes of evaluating whether a given monetary arrangement can be deontological justified from the libertarian, and more specifically Rothbardian perspective.

Nozick then dedicates chapter 4 of 'Anarchy, State and Utopia' to show that this ultra-minimal state "is morally required to compensate for the disadvantages it imposes upon those it prohibits from self-help activities against its clients" (1974, p. 119). The whole point of having the right to retaliate proportionately when one's rights are violated is to deter others from violating one's rights in the first place. Thus, when the ultra-minimal state prohibits non-clients from defending themselves against clients who violate their rights, it "seriously disadvantages the independents in their daily activities and life" (Nozick, 1974, p. 110). In other words, in the ultra-minimal state, non-clients of the dominant agency will be at a disadvantage against clients as they are unable to exact compensation from them or act in self-defense without the dominant agency's permission, while clients are free to do so against non-clients. One may ask, why would a free society allow such prohibition?

To solve this problem Nozick proposes a principle of compensation: if for the sake of reducing potential or actual harm to others, one is to prohibit a type of action that plays an important role in people's lives (like that of acting in self-defense), and such prohibition puts some people in serious disadvantage to others, then "those who forbid in order to gain increased security for themselves must compensate the person forbidden for the disadvantage they place him under" (1974, p. 81). This principle is meant to allow certain prohibitions when appropriate compensation is paid, while ruling out having to compensate others for not allowing them to play Russian roulette with us without our permission, given that such prohibition would entail no disadvantage in people's daily lives.

According to Nozick then, the ultra-minimal state ought to compensate non-clients for its prohibitions as it places them in disadvantage to its clients, it might choose to do so by providing sufficient protective services to non-clients against its clients' actions and by providing them with liability insurance as well since this would be cheaper and more effective than paying monetary compensation for its clients transgressions to non-clients: If covering for monetary losses after transgressions have occurred were cheaper than the protective services to prevent transgressions then nobody would hire protective services in the first place. It is more effective than monetary compensation as some losses might not be compensable at all: how do you fully compensate someone who has been killed?

What is more, it might also charge them for these protection services an equivalent amount to what they would have spent anyway were they allowed to defend themselves. In this manner, the ultra-minimal state can be transformed into a taxing minimal state, as charging non-clients for protection services is tantamount to taxation, only that for Nozick, this is the only morally acceptable kind of taxation. Further, Nozick asserts that "It would be morally impermissible for persons to maintain the monopoly in the ultra-minimal state without providing protective services for all, even if this requires specific 'redistribution'." (Nozick, 1974, p. 52)

Rothbard, as all anarchists, was unconvinced by Nozick's elaborate attempt to justify the existence of the state from a natural rights perspective. Rothbard claims that Nozick's justification of the minimal state does not justify the existence of any current state or of any state that ever existed since according to historical evidence, none of them has been immaculately conceived, all the opposite, they have been founded by violent means. "Therefore, it is incumbent upon Nozick to join anarchists in calling for the abolition of all existing States, and then to sit back and wait for his alleged invisible hand to operate. The only minimal State, then, which Nozick at best can justify is one that will develop out of a future anarcho-capitalist society." (Rothbard, 1982, p. 232). Although the former is a fair point, Nozick's intention was to demonstrate how a minimal state could arise from the state of nature without violating anyone's rights, not to justify the existence of present states.

On deontological grounds Rothbard argues that if a dominant agency does indeed arise, it could not legitimately claim the monopoly of force and turn into a minimal state: “By what conceivable right does the dominant agency step in to outlaw peaceful arbitration and adjudication between the independents’ own clients, with no impact on its clients? The answer is no right whatsoever… the dominant agency, in outlawing competitors, is aggressing against their rights, and against the rights of their actual or potential customers… this decision to enforce their monopoly is scarcely the action of an invisible hand; it is a conscious, highly visible decision, and must be treated accordingly” (Rothbard, 1982, pp. 237-238). He goes even further and states that if one is allowed to prohibit someone’s risky activities on the grounds that it might provoke a generalized feeling of apprehension or fear (as Nozick claims), “then any tyranny becomes justified, and Nozick’s minimal state quickly becomes the maximal state. (Rothbard, 1982, p. 239).

The problem with Nozick’s minimal state is that as pointed out by Rothbard one can easily extend Nozick’s arguments in order to provide many other public goods or prohibit many other risky activities, which might not develop into a full despotism as he claims, but one would certainly end up with a state that attempts to internalize all externalities. Such small state system is much more compatible with consequentialist libertarianism and classical liberalism than with deontological libertarianism. By emphasizing the absoluteness of property Rothbard rules-out any possibility for the provision of public goods and for the mere existence of the state.

We now have a clear idea of how Rothbard's philosophy fits into the liberty tradition and within libertarianism. The key takeaways from this section are:

- Rothbard is an anarchist and as such he rejects even a minimal state.
- For him property rights are absolute, one cannot simply violate someone else's property rights and then compensate this person for the inconvenience. Certain losses cannot be compensated for. In Rothbard's own words (1982, p. 242):

  > “In fact, the existence of only one fervent anarchist who could not be compensated for the psychic trauma inflicted on him by the emergence of the State is enough by itself to scuttle Nozick's allegedly noninvasive model for the origin of the minimal state. For that absolutist anarchist, no amount of compensation would suffice to assuage his grief."
- Despite justifying his anarchist views on natural rights, Rothbard also makes use of historical and consequentialist arguments. Particularly when advocating for the Gold Standard he is very keen on the use of consequentialist arguments, as we will see later on.

Finally, the following table illustrates how Rothbard fits into the liberty tradition along with other influential authors within the liberty tradition[9]:

	Anarchism	Ultra-minimal/minimal state	Small state
Deontological	Rothbard	Nozick	
Consequentialist	Rothbard	Von Mises	Smith, Friedman, Hayek

[9] I'm grateful to Willem van Dijk for the idea of making this illustrative table.

Section 3: Rothbard’s conception of money

Now that Rothbard’s line of thought has become apparent, let’s proceed to his views on money: as many other libertarians, he follows von Mises’ conception of money, i.e. money as a simple mean of exchange. He bluntly stated: “money is a commodity, period” (See Modugno 2009, p. 138). Von Mises (1953, Ch. 1, section 2) describes the natural rise of money as simply the most liquid and convenient commodity to perform the function of generalized media of exchange. Nozick (1974, pp. 17-18) uses Carl Menger’s (2009) story of the natural rise of money in the state of nature as an example of what he calls ‘invisible-hand explanations’: in the state of nature, before money comes into existence, people exchange their goods through barter, but this is obviously inconvenient and time consuming. Thence, people start exchanging their goods not for that which they desire or need directly but for something known to be more generally wanted, more liquid than their own goods, so that they can use these more liquid goods to purchase what they ultimately want. If everyone acts in the same fashion, people will end up converging in exchanges on the more marketable or liquid goods, which will naturally evolve as commodity money. "The goods they converge on, via their individual decisions, will have certain properties: initial independent value, physically enduring, non-perishable, divisible, portable, and so forth. No express agreement and no social contract fixing a medium of exchange is necessary.” (Nozick, 1974, pp. 17-18)

In other words, Rothbard, von Mises, and Nozick follow Carl Menger’s vision, that money is simply a convenient commodity that naturally evolves into the numeraire, and nothing else. However, this is Nozick's only mention of money in ‘Anarchy, State and Utopia’ (1974, pp. 17-18), so it is not entirely clear whether he is endorsing the explanation or simply using it to illustrate what an invisible-hand explanation should look like.

The Carl Menger's explanation is often rejected by historians, sociologist and many heterodox economists, Ingham (2004) is one of these authors who support the state origin of money and reject ‘invisible-hand explanations’ for it. Ingham (2004, p. 12) states that “money is a social relation of credit and debt denominated in a money of account”. In other words, he is of the view that the possessor of money has a credit towards everybody else: we are all willing to deliver certain goods and services in exchange for money, or likewise, the possessor of money is entitled to redeem its credit for goods and services with anyone, as long as he is located within this money’s territory. For Ingham (2004, p. 12), “money is a form of sovereignty, and as such it cannot be understood without reference to an authority” Libertarian reject this notion of money, regardless of whether they endorse Carl Menger's explanation or not. From the libertarian perspective money can precede the existence of the state. For a libertarian, money should not be about the state coercing its citizen's to use the state's money to pay their taxes but about individuals' choosing a form of money because they believe it to be the most convenient and trustworthy form of money. In the next section it will become clear that there are non-authoritarian alternatives to commodity-backed money, in which trust plays the role of authority.

Importantly, Ingham, as well as other authors like Kinley (1968) and Graeber (2011, Ch. 2), claim that the main function of money is that of unit of account and not medium of exchange, and that there is no historical evidence for Menger's explanation. On the contrary, evidence from gift economies in the first agrarian societies show that creditor and debtor relations could have preceded barter. Money as a unit of account comes into existence in the moment in which unquantifiable debts ('I owe you one') become quantifiable, as in 'I owe you X units of something' Graeber (Ch. 1). Nevertheless, for the purposes of this thesis I will not focus on what we know today as money and whether it emerged via the invisible hand or by government decree. Instead, I will focus on what money should be like in the different ideal social frameworks that entail the 'liberty tradition' and particularly, within Rothbard's anarchist society. I will do this to determine whether Rothbard's support for commodity money and rejection of non-commodity backed money is consistent with his own philosophy and to determine whether libertarians more generally are justified in preferring commodity money over other non-commodity backed monies.

It is difficult to separate Rothbard's criticism of central banks and the fractional reserve system from his more principled views on money. Rothbard authored a book entitled 'The case against the Fed' (1994), in which he argues for the abolition of the Fed and central banks across the world and the establishment of a '100% reserve banking' system, together with a return to the 'gold standard'. He criticizes the Fed for its lack of accountability and blames it for causing price inflation. His argument goes: if the central bank "is the sole monopoly source and creator of all money, who then is responsible for the blight of inflation? Who except the very institution that is solely empowered to create money...?" (Rothbard, 1994, p. 11). He also blames the Fed of creating financial instability and recessions. This critique nevertheless, does not argue that Fed must be abolish because it violates individuals' natural rights.

His proposal instead, is one that would come in place within the current capitalist system, that is, without abolishing the state. Rothbard's case against the Fed is not of deontological nature, which he would have had to entitle 'the case against the state'. The case against the Fed is Rothbard's practical attempt towards a freer society, one where the government does not control the money supply, which would still be very far from Rothbard's ideally anarchist society. Rothbard's principled views on money, can be found in 'the libertarian manifesto' (1978, pp. 220-221, 227-228), 'the ethics of liberty' (1982, pp. 36-40) and 'The Austrian Theory of Money' (1976). His views are basically identical to those of von Mises and Menger. He himself stated: that "The Austrian theory of money virtually begins and ends with Ludwig von Mises's monumental 'Theory of money and credit', published in 1912." (1976, p. 297). I will thus dedicate some space to the latter.

Von Mises distinguishes three kinds of money: commodity money, fiat money and credit money. Commodity money, as its name indicates, is comprised by a commodity that is convenient and liquid enough to be used as generalized medium of exchange but it is not limited to metallic money; paper money can also be commodity money as long as it is convertible into a determined amount of the physical commodity, or in other words, as long as it trades at par with the commodity it represents. Von Mises makes the remark "that it is the commodity in question that constitutes the money, and that the money is merely this commodity" (1953, Ch. 3, pp. 19-20). For von Mises, paper money is a money substitute, not money itself, the commodity it represents is the money. This is broadly in line with Rothbard's blunt statement: "money is a commodity, period" (See Modugno 2009, p. 138).

Fiat money is issued by the state (or by a central bank in the name of the state) and it is coercively imposed as legal tender upon the state's citizens. Fiat money is not convertible to a commodity, its value is given by the stamp it bears, that is, the authority that enforces its use and regulates its value. And last but not least, credit money, which "is a claim falling due in the future that is used as a general medium of exchange" (von Mises, 1953, p. 62). From Ingham's perspective all money, including commodity money, is also credit money: for him, when purchasing goods, the shopkeeper is making due to his debt towards the possessor of money by delivering his goods.

After having explained extensively Rothbard's rejection of the state, it is no wonder that he rejects the government's monopoly of the money supply. It is also evident that all anarchists, as well as supporters of the minimal state, are justified in rejecting this monopoly over the money supply. To illustrate this point, let's return to the minimal state and ask ourselves: could the dominant protective agency issue its own money? Well, surely yes, as much as any individual would be allowed to use its own labor to produce anything she may like, the dominant protective agency could produce stamped pieces of paper and coins. The minimal state could then provide its citizens with means of payment and this means of payment could presumably be commodity money or fiat money. So far, no one's rights seem to be violated. If the business of issuing money went well for the minimal state, some individuals would undoubtedly want to join this money market and produce their competing monies.

Now, on what grounds could the minimal state prohibit individuals from issuing their own monies? We have seen that Nozick justifies how a dominant protective agency can prohibit independent enforcers of law on the grounds of unreliable procedures, which could potentially lead to violations of the rights of the dominant agency's clients. But this argument would not work for money: a dominant private issuer of money cannot prevent all others from issuing their own monies claiming that they would produce unreliable monies. If it were true that its competitors' monies are unreliable, people would just stop using those unreliable monies and the minimal state would become the only issuer. The resulting monopoly would be a de facto monopoly but not the jure, i.e., the minimal state cannot legitimately place legal barriers of entry to competitors. Let's take the argument a little farther: could the minimal state outlaw a private issuer of money because it is scamming its clients? Say, this producer claimed its money would maintain its value against the minimal state's money and it did not. Well, in that case this private issuer would have committed a crime by violating a contract or agreement, and would have to compensate the victim appropriately. This does not imply that the minimal state would be justified to outlaw all private issuers of money, otherwise the minimal state could outlaw all private wine producers and have everyone drink the state's wine exclusively, because some consumers were poisoned with some unreliably produced privately wine. Thus, from a natural rights perspective, coercing all individuals to the exclusive use of the government's money as a medium of exchange would be a violation of their natural rights.

What is not evident is why commodity money is the only alternative to government-controlled money. If the explanation of how money comes into existence in an invisible hand process is correct, not only plausible but what would actually happen in the state of nature, then granted that the first form of free money would be commodity money as Rothbard (1991, p. 31) claims following von Mises' explanation. I am not entirely convinced that in the state of nature one commodity (or a few) would naturally emerge as the numeraire and become the only form of money, but for the sake of the argument, I will assume that it is the case, at least in a primitive society departing from the state of nature it is indeed plausible.

Once a commodity or a set of them has emerged as the numeraire in a primitive anarchist society, then, as Rothbard and others supporters of this theory rightly claim, private individuals would realize the inconvenience of transporting precious metals or other commodities for everyday transactions, as well as for international trade, where it would be not only inconvenient but also costly to transport tons of commodities for payment, thence, deposit banks would naturally surge as a profitable economic activity. These deposit banks would charge fees for storing a large amount of the favored commodity in secured vaults and provide their clients with a convenient payment system for their transactions. These convenient means of payment could include banknotes, token coins, checks, debit cards, wires and any other physical or electronic means of payment. Then, for the development of a prosperous anarcho-capitalist society credit would have to be developed as well. Not only banks but anyone with sufficient capital could lend money for interest although according to Rothbard, banks would not be allowed to create money. Banks could, of course, lend their own capital and they could also lend their clients' money if they approve of this and are paid interest as an appropriate compensation for the inconvenience of having their funds in a 'time deposit account'.

What banks would not be allowed to do in this Rothbardian '100% reserve' banking system is to create money. It can sound quite logic for those unfamiliar with the modern banking system that banks should not create money out of thin air, but banks do create money every day in almost every country within the norms of the fractional reserve banking system. When a bank gives a credit to a customer it deposits 'X' amount of newly created money into the customer's account; the creation of this money is a new liability for the bank, i.e. it owes 'X' amount of money to the customer who has the right to withdraw it or spend it; while at the same time it creates an asset by writing down a claim to receive a cash flow from the customer in a set of future dates, which corresponds to the repayment of the principal plus interest, as the client owes money to the bank.[10] In this sense, the creation of credit in a fractional reserve system is an expansion of the bank's balance sheet on both sides, and hence, an expansion of the money supply.

[10] Technically they mutually owe each other and have a claim over each other as the client's balance sheet is also expanded on both sides: the bank has a short-term liability with the client while having a long-term asset or claim on him/her; while the client has a short-term claim over the bank and a long-term liability with it. That's why it is said that the business of commercial banks is to borrow short and lend long.

Rothbard blames the Fed’s (and other central banks’) fractional reserve banking systems for bank runs and inflation. And he proposes the previously explained 100% commodity reserve banking system and the abolition of central bank as its solution. Let’s understand what this system is about to understand Rothbard’s critique.

Fractional reserve banking is currently the prevailing banking system in the world. After a thorough search, I could not find any single country that currently implements Rothbard’s proposed 100% reserve banking. Under this system, banks are allowed to create fiat money up to a multiple of their reserves deposited at the central bank. In other words, banks are obliged to maintain a certain fraction of their outstanding credit deposited as bank reserves in the central bank. The reserves (being larger than 0%) are intended to prevent bank runs by securing that commercial banks always maintain certain liquid position to deal with a large number of clients withdrawing their deposits at a time without becoming illiquid. The reserves are also intended to reassure clients' trust in the banks. Before the establishment of inflation targeting in the early 90s, central banks used to regulate the money supply by tweaking the reserve requirement ratio, and thus encouraging or discouraging credit money creation. Nowadays this is no longer the fundamental monetary policy tool central banks use to regulate the money supply and consequently control inflation. Most advanced economies' central banks as well as many emerging markets’ central bank use some Taylor rule variant for this purpose, i.e. their main monetary policy tool is the bank rate or discount rate: the interest rate that central banks charge for providing short-term liquidity to commercial banks. If this rate is set relatively high it discourages credit creation by making it potentially very expensive for commercial banks to become illiquid, thus incentivizing prudent lending; central banks would tend to raise rates whenever inflation is expected to surpass their set target. On the contrary, when central banks want to avoid undershooting their inflation targets (because the money supply is not growing or expected to grow sufficiently fast to keep pace with the expansion rate of economic activity) they can lower their bank rate to incentivize lending and thus accelerate money creation. I will show in section 4 that a bank that issues its own non-commodity backed currency would behave very similarly to today’s central banks.

Going back to Rothbard after this short clarifying diversion, how come banks would not be allowed to create money in an anarchist society? Who would regulate the banks or prohibit money creation if there is no state? Rothbard argues that in an anarchist society a bank that creates money would be breaching a contract with their clients since they would be lending money that is not 100% backed by the commodities it holds in its vaults. According to Rothbard, by increasing the money supply in circulation without a proportional increase in the supply of commodities the bank would spur inflation and profit from this inflationary tax, often called seigniorage. This is as simple the law of supply and demand: ceteris paribus a constant demand for money, a bank that increases its supply would induce a drop in the price of money, that is, an increase in the price of all other commodities as measured in money. Eventually, one way or the other the public would know that this rogue bank does not have sufficient commodities in its vault to back its clients’ deposit, this would induce a bank run against it, that is, all its clients would attempt to withdraw their deposits (late comers would inevitably suffer a loss since there are more deposits than commodity reserves, hence its clients' urgency to withdraw their money) and the rogue bank would immediately go bankrupt and cease to exist since there is no state to bail it out. Thus, with no need for the state banks would still have incentives for complying with the '100% reserve banking' rules, i.e. not going bust.

To explain Rothbard's argument against fractional reserve banking and consequently against non-commodity backed money, I will explain how this inflationary tax would work in an anarchist society, how inflation can be equated to taxation, and consequently, inflation can also be treated as theft from an anarchist perspective.

If the supply of goods and services, as well as the demand for money, are constant, an increase in the money supply is necessarily inflationary. Let's assume that the monetary side of the economy is currently in equilibrium: money supply equals money demand, i.e., all individuals are holding their utility-maximizing amount of money given all prices (including interest rates, which represent the price of money in time). In other words, no individual wishes to borrow more money or to repay their outstanding debts before the previously agreed maturities given current prices. In this situation, a bank who attempts to expand its outstanding credit by creating Non-Commodity Backed (NCB) money will have to lower its price in order to make its product sufficiently attractive for enticing potential customers to borrow more, which means offering a lower interest rate on this marginal loan. From the lender's perspective, the bank is willing to purchase a claim for future repayment of lower net present value delivering the same amount of money today. The clients who take these loans use these funds to purchase more goods and services than they would have purchased otherwise, for why else would they borrow as long as the interest rate is positive? Assuming that individuals do not derive utility from hoarding money. Since the aggregate amount of goods and services remains constant, the price of these goods and services must go up!

This means that the inflationary creation of money is redistributive: as the price level in the economy is now higher, those who did not benefit directly from the cheap loan, lose purchasing power, while the bank who created the new money through these cheap loans sees its profits increased at no cost. The effect on those who took the loans is indeterminate: inflation typically has a positive wealth effect on net debtors and a negative wealth effect on net creditors (including savers, who play the role of creditors to banks). From a natural rights perspective then, the resulting inflation is akin of taxation: it is almost as if the bank had robbed non-clients or even clients who did not benefit from the cheap loans of NCB money. We have now understood libertarians' skepticism for fractional reserve banking and NCB money. But are they right to be so skeptical?

Section 4: What if individuals wanted a different sort of money?

I have granted for the sake of the argument that a commodity standard money emerges as a consequence of the invisible hand in the state of nature. Now, borrowing from Hayek's (1978) proposal for 'the denationalization of money', I develop my own thought experiment departing from Rothbard's ideal anarcho-capitalist society, in which one commodity rises as the numeraire and a fully-fledged 100% reserve banking system emerges around it. The main difference is that Hayek proposed a competitive system of privately issued monies as a solution to the high inflation rates experienced by most advanced economies in the 70s and as an alternative to central banks in modern capitalism, rather than a thought experiment departing from the state of nature. My goal with this thought experiment is to show that NCB money can arise and coexist with CBM in an anarchist society without entailing any rights' violations.

Assume then that in a well-developed and ideal anarchist society, a bank wants to issue a new currency which is not backed by any commodity. Most individuals would be highly skeptical of course, but this is not any bank, it is the most highly reputed bank, one known for its financial prudence which enjoys a dominating market position, let's call it the First Issuing Bank. This is a key assumption as I will explain in section 5. The bank in question starts offering a new special kind of loan to its clients, loans denominated in its own currency which it calls First Issuing Bank's 'constants', as it claims that the value of this currency will remain constant in time and much more so than that of any commodity money ever seen before.

The First Issuing Bank (FIB) is well aware of the functioning of money, so in order to keep the price of its constants truly constant, it defines a Consumer Price Index (CPI), which matches the consumption patterns of its average customer, and it claims that a constant will maintain its purchasing power equal to one unit of the basket of goods of the FIB's CPI +/-5% forever. That is not to say that the constants will have approximately 5% inflation a year but that it will never deviate its value from the FIB's CPI in more than 5%[11], i.e. absolute zero inflation on average. In other words, if the purchasing power of the constant (as measured by the FIB's CPI) were to fall by 1% in a given month (i.e. price inflation), the FIB would have to restrict the supply of constants (relative to demand) in a sufficient manner to achieve a 1.01%[12] revaluation of the constant (i.e. price deflation), so that the constant could recover its original purchasing power (one unit of the basket of goods contained in the FIB's CPI). I'm stating these conditions just as an example, competing issuing banks could issue their own currencies offering very different conditions. What's important here is that for private issuing banks must offer attractive conditions (relative to the dominating CBM) to secure demand for their NCB monies.

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[11] Why not offering a currency whose value as measured in its own CPI does not vary at all? With the relative prices of the goods contained in the CPI varying according to market conditions it would be impossible in practice to achieve a 0% deviation all of the time.

[12] Notice that 1% revaluation would not suffice for the constant to return to its original value after having fallen by 1%: 1.01% is required since 1/0.99=1.01

How would the FIB achieve all this? First, The FIB needs to make sure that the constants are accepted as a medium of exchange, since the FIB is the most prestigious bank in the region it can make sure that all its clients are able to pay in constants using their debit cards at all points of sale in the region, retailers would simply receive the equivalent amount of whatever currency they wish, it could be constants or any commodity backed money (CBM), the exchange rates would be calculated automatically in real time by the payment machines. This is the second key assumption of my thought experiment. I acknowledge that in a more primitive economy (one without electronic transactions) it would be more difficult, although not impossible, to secure that the constants are broadly accepted in the market place.

Second, in order to secure some demand for the constant, the FIB could offer loans in constants with a marginally lower interest rate than loans in CBM. Remember (from section 3) that in order to have inflationary money two assumptions must hold: both the supply of goods and services and the demand for money must remain constant while the money supply expands (alternative one or both of the first two could be declining while the third remains constant). Hence, the FIB could easily increase its new money supply in a non-inflationary fashion, i.e. gaining market-share against CBM, as long as the economy is growing[13]. The FIB would then gradually increase the supply of constants as the economy grows and requires more money for transactions. The FIB could still flourish even if our anarchist economy were completely stagnated: it would only take a few clients risking to take a loan in constants: if the FIB maintains its word of keeping the value of the constant truly constant as measured by the FIB's own CPI, then other customers will dump the CBM in exchange for constants as soon as the value of the CBM falls.[14]

Why would the value of the CBM fall? It has to be noted that the constant would be a freely floating currency, i.e. its exchange rate against CBM would fluctuate according to their relative supply and demand. The FIB is committed to maintain the purchasing power of the constant permanently constant as measured by its own CPI, not to maintaining its exchange rate against other currencies. The CBM, being a commodity currency would presumably fluctuate quite a lot in terms of prices of goods and services. For example, if a new technology for extracting its underlying commodity was developed or if new commodity fields were discovered, the CBM would depreciate, (its price would fall), as individuals should expect CBM's supply to increase in the future. Or if an unexpected event were to occur that deteriorates the expected earnings of a big portion of the companies listed on the stock exchange, a generalized temporal increase in risk aversion would be likely to follow: this would lead individuals to short equities (if they participate in financial market) and/or increase their savings' rate by lowering their consumption,

[13] A free-market enthusiast could claim that an anarchic economy would grow faster than a capitalist one, as it would be free from the burden of regulations. Economic growth is nevertheless, not a necessary assumption for my thought experiment.

[14] The FIB would then accumulate assets dominated in other currencies as it gains market share, which can come handy to fight unexpected inflation through quantitative tightening (QT) as it will become clear in a moment. This not a necessary assumption thought, we will see that the FIB has a whole arsenal to generate deflation if it need be.

which all translates in an increased demand for money[15], being CBM the predominant form of money and having a completely inelastic supply (relative to demand), it would appreciate, i.e. its price would increase. Notice that the CBM would appreciate when the outlook of the economy deteriorates even if financial markets were completely not existent. For example, lower than average rainfall in a monetary agrarian economy would lead to a higher aggregate savings rate (lower consumption) and therefore increased money demand in the expectation of a poor crop.

The fact that CBM is inherently volatile as its supply is inelastic is relevant to my argument as long as we assume that stability is a desirable characteristic of money. This should not be a controversial assumption if we think of the three functions of money: unit of account, store of value and means of exchange. They are all better performed when money maintains its purchasing power. One may think that for storing value an appreciating currency would be preferable, but that could bring great instability in the relationships between creditors and debtors: if the value of debts increases in real terms, debts become unsustainable as the general price level falls, resulting in numerous defaults. This was described by Fisher (1933) in his classic paper 'The Debt-Deflation Theory of Great Depressions'.

I have yet to explain how the FIB will maintain the value of the constant constant; its credibility will help but certainly not suffice. To achieve this unprecedented stability, the FIB would observe its CPI on a daily basis. If a drop in the CPI is observed or expected (price deflation), all the FIB has to do is to increase the supply of constants. How would it do this? Mainly, by lowering the interest rate of the loans it offers denominated in constants, thus encouraging individuals to take on more debt denominated in constants. These individuals would presumably spend at least some of the newly created money on the goods included in the FIB's CPI and ceteris paribus, the CPI would return to its long-term value of one constant. What if clients don't want to take on more loans denominated in constants? First of all, this is an unlikely situation since the FIB would not be subject to a zero lower bound, i.e. the FIB could even offer loans at a negative interest rate if need be. Provided that the goal is to increase the supply of constants why should the FIB care if their clients return fewer constants that were originally lent? The FIB would only lose constants that it created itself at a negligible cost (we can even assume that the constant only circulates as electronic money). But let's assume for the sake of the argument that the management of the FIB is what economist call hawkish, in this particular case they simply refuse to offer loans at negative rates fearing that clients might misinterpret this move and the bank might lose credibility. In that case, if the FIB's CPI drops, the FIB can still do what is called Quantitative Easing (QE), it just needs to purchase assets with newly created constants for increasing its money supply. Notice that these newly created constants are created out of thin air since the constant is a NCB money, thus the FIB does not need reserves of any kind when trying to avoid deflation. What is more, it can do QE by purchasing the exact same goods contained in its own CPI using the CPI's own weights, which would of course guarantee its effectiveness. We can conclude then, that the FIB could easily avoid deflation or in other words,

[15] Money demand, is the amount of money individuals hold in a given period, hence when reducing consumption, ceteris paribus income, individuals are automatically demanding more money as they are selling less money to obtain consumption goods.

it could always prevent the value of constant increasing more than 5% above the value of the FIB's CPI.

What would the FIB do to avoid inflation? Symmetrically, if the FIB observes that its CPI index is increasing it would proceed by increasing the interest rate at which it offers loans denominated in constants. This would discourage borrowing in constants and as clients who previously took on loans denominated in constants gradually pay off their debts, the FIB would let the supply of constants come down or its rate of growth decline as it sees fit. This seems like a slow process, though, what if the price of some of the goods in the CPI suddenly increased dramatically because of a disruption in the supply chain? Say a conflict in the Middle East causes a sudden increase in the price of oil. In this case, the FIB could start paying a positive interest rate to clients who deposit their money in deposit account denominated in constants, incentivizing them to hold a higher average amount of constants in their accounts: the increased demand for constants would raise its price or in other words, generate temporary deflation so that the constant returns to its original value. As with QE, notice that the FIB does not need any external resources whatsoever to pay a positive interest to its depositors, since it would pay this interest in newly created constants as well.

Assume now that this relatively high inflation occurs right after the constant's introduction and the FIB is afraid of losing credibility. In that case the FIB can effectively destroy its own money by selling assets (Quantitative Tightening, QT): it can effectively repurchase its constants by selling CBM it could have previously accumulated while issuing constants (some depositors would have exchange their CBM for constants); the FIB will also have a large portfolio of financial assets available and it could maintain a large stock of those non-perishable goods included in its CPI. Remember the FIB was already a well-established reputed bank before starting the business of issuing its own currency. But what if the FIB runs out of assets even the biggest bank can become temporarily illiquid? This is indeed a possibility since there would be no regulator coercively imposing the FIB to back all its issued constants with 100% of goods contained in the FIB's CPI, which would make the constant equivalent to CBM, only with a basket of commodities rather than one commodity as backing. In the extreme case that the FIB does not hold sufficient assets to sell for supporting the value of its constants when inflation suddenly surges, it could always create financial futures and auction them, that is, it could promise to deliver either more constants or any commodity at a future date in exchange for constants today.

We have shown that the FIB could indeed deliver price stability but why would it do it? Would it not have incentives to defect and thus benefit from the inflationary tax as in the case of a rogue bank used before? To this question, Hayek answers that an issuing bank which does not maintain its promise to deliver price stability would go out of business almost immediately. It is easy to imagine that after seeing the FIB's success other banks would follow suit and issue their own currencies. It would be a highly competitive market dominated by monopolistic competition, in the sense that each currency would be unique, having its own CPI measurement that best reflect its customers' preferences. Customers who do not feel represented by their bank's CPI would simply migrate to an issuing bank that better represents their interest. You could have the

Industrial Production bank for example, which maintains price stability as measured by a weighted average of industrial production goods and raw materials necessary for such activities. This would be ideal for any producer as it would almost eliminate the uncertainty regarding the future price of its inputs and outputs. In such a competitive environment, if the FIB were to fail at delivering price stability its clients would immediately exchange their constants back to CBM or into another non-commodity backed competitive private currency.

As it must be evident for those who are familiar with the subject, private issuing banks would act in the same fashion as central banks conduct monetary policy today: i.e. raising interest rates when inflation (or inflation expectation) exceeds their inflation target and lowering them when inflation (or its expectations) falls below target. However, there are some differences: unlike central banks, private issuing banks would be for profit and would not be constraint by any rule it has not imposed on itself or by political checks and balances. Private issuing banks could have different inflation targets, just as service providers of any kind offer different conditions to their clients. In the case of the FIB, its target is zero average inflation, where positive inflation has to be compensated with deflation of sufficient magnitude to return the constant to its original value as measured by the FIB's CPI. The Fed, in contrast, has a 2% inflation target and is not committed to compensate for below or above target past inflation. For any further details on the functioning of such system, as well as a thorough discussion of pros and cons, please see Hayek (1978).

This thought experiment shows how a privately issued NCB money would work departing from an anarcho-capitalist society. We can now proceed to evaluate how Rothbard would respond if such issuing banks were to arise in his ideal anarcho-capitalist society.

Section 5: how would Rothbard respond?

The big question now is, why would Rothbard be against such a bank like the FIB? Is the FIB violating anyone's rights? I have shown how customers would voluntarily agree to purchase and make use of the constants as a mean of exchange and I have also shown that issuing banks like the FIB would have strong incentives to deliver price stability, hence there would be no violation of contract and no inflationary tax, which was showed to be equivalent to taxation and thus theft from the Rothbardian perspective in section 3. The FIB, therefore, is not violating anyone's natural rights by getting into the business of issuing competing private currencies. What if there was an old-fashioned anarchist or libertarian claiming that the FIB is inflicting harm upon him/her by imposing the use of NCB money on him/her? In that case, the FIB could defend itself by claiming that it is not imposing anything on anybody: since the use and acceptance of constants as a mean of payment would be strictly voluntary, no individual would be coerced to accept them or forced to stop using CBM.

Being an anarcho-capitalist for whom property is absolute, Rothbard would have no moral ground to prohibit an economic activity that does not violate anyone’s natural rights, and it does not seem to be the case that the FIB would be violating anyone’s natural rights by issuing constants. The FIB would not claim exclusivity in the issuance of money, it would have to compete for clients as more banks would follow its steps and issue their own currencies. Furthermore, CBM would still be available for those who prefer to use it as a mean of exchange. No issuing bank could legitimately claim the monopoly of currency issuance, just as no metal producer or coin minter could claim the monopoly over such activity.

Furthermore, in section 2, I explained Rothbard’s rejection for Nozick’s prohibition of self-help activities of non-clients against clients of the dominating agency, which gives rise to the minimal state. It would be contradictory of Rothbard to support the prohibition of private currency competition while at the same time opposing the minimal state’s prohibition of independent enforcement of law as well as opposing to the prohibition of any economic activity as long as it does not violate anyone’s rate. Additionally, unlike in the case of security, private issuing banks do not run the risk of violating anyone’s rights with their unreliable procedures. If an issuing bank were to break its own rules (those which contractually bind the FIB to maintain the constant constant), it would be prosecuted by the appropriate private protective agency (remember we are still in anarcho-capitalism with multiple protective agencies).

Luckily, Rothbard was acquainted with Hayek’s proposal for the ‘denationalization of money’ so we can know what Rothbard would think of an issuing bank like the FIB. Rothbard rejected Hayek’s proposal straight away in ‘the case for the genuine gold dollar’, but he rejected it on purely consequentialist grounds, not with deontological arguments. He claims that “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. Print different names on paper all one wishes, and these new tickets still would not be accepted or function as money; the dollar would still reign unchecked.” Rothbard (1991, p. 4). But wait a minute, isn’t anarcho-capitalism utopian as well?

If Rothbard's defense of a stateless society is intended to be a realistic proposal then he would have to argue how abolishing the state is a more realistic proposal than allowing banks to issue their own currencies and compete with the government's money under capitalism (as Hayek proposed). Rothbard is not making this argument, instead, what he claims is that his proposal for the abolition of the Fed and the establishment of a 100% gold dollar as a replacement for today's fiat currencies and fractional reserve banking, is a much more feasible and better solution than Hayek's proposal for the 'denationalization of money'. This is purely consequentialist, though. On deontological grounds Rothbard had nothing against it, in fact, he readily accepts that "Hayek is surely correct that a free market economy and a devotion to the right of private property requires that everyone be permitted to issue whatever proposed currency names and tickets they wish." Rothbard (1991, p. 3).

Continuing with Rothbard's critique to Hayek's denationalization of money, he states that money is different from consumption and production goods as "all other goods... are desired for their own sake, for the utility and value that they yield to consumers... Money, however, is desired not for its own sake, but precisely because it already functions as money, so that everyone is confident that the money commodity will be readily accepted by any and all in exchange." Rothbard (1991, p. 3) He also claims that individuals would not accept such tickets with no intrinsic value. I agree with Rothbard to the extent that nobody would accept 'de sousas, binders or hodgsons' as a mean of exchange if we were to print pieces of paper with our faces on them. Nonetheless, in my thought experiment, I start off by assuming that the most highly reputed bank in the economy would be the first to experiment with issuing its own currency. In a competitive currency system like the one Hayek proposes, private issuing banks would behave just as modern central banks do, only that they would not be backed by government authority since there is no government in an anarchist world, but they would be backed by the public's trust and all their actions would be continuously surveilled by the market; this would occur in the exact same fashion as nowadays' market participants who are continuously vigilant of all macro variables that can possibly affect future monetary policy, and consequently, the relative value of all major currencies in the world.

Rothbard is right to point out that a NCB money does not have intrinsic value in the sense that it would be worthless outside a market economy, let's illustrate this point with an example: if I printed my face over gold coins and called them 'de sousas' some people would readily accept them as a means of payment, even though nobody would call it real money. They would accept them realizing that de sousas can be melted and sold for its weight in gold, which has an intrinsic value. While if I printed paper notes with my face on it and called it de sousas nobody would offer me anything for them, unless I made them very pretty and someone wanted them for decoration.

What Rothbard erroneously assumes is that there is necessarily no demand for assets of no intrinsic value. He claimed, once again showing his endorsement for von Mises (1953) monetary theory that "Hayek and his followers have failed completely to absorb the lesson of Ludwig von Mises' regression theorem... any commodity to become used as money, it must have originated as a commodity valued for some nonmonetary purpose, so that it had a stable demand and price before it began to be used as a medium of exchange." Rothbard, (1991, p. 4). I challenge this view.

What about the money demand for credit money as defined by von Mises himself in the previous section? I.e. a promise to pay that is used as a general medium of exchange. When an individual takes on a credit from another, the creditor might require a guarantee for such loan. The guarantee (or often the guarantor) acts as the backing of such loan. This is equivalent to the underlying commodity in CBM. But when the lender knows the borrower quite well and trusts her fully, he might lend to her without requiring any guarantee at all. One could argue that in such cases the creditor could be emotionally involved with the borrower and thus not require any guarantee. But this happens all the time under completely impersonal circumstances in international trade, where a legal dispute following a default can take many years and be very costly: when an international company provides services to another in a different jurisdiction, the purchaser may pay using promissory notes that may or may not bear interest and may or may not be covered by a guarantee or guarantor. This occurs simply because the creditor trusts the borrower.

A bank issuing a NCB money acts exactly like a corporation issuing promissory notes, which in accounting terms is equivalent to the bank borrowing from the holders of such NCB money. In the previous section I made two crucial assumptions that ensure that the constants will have some demand even though there is no underlying commodity to support them. The first had to do with trust: the FIB is a highly reputed bank known for its financial prudence. If the public trusts the FIB, some individuals will be willing to take the risk of buying constants (using other currencies, accepting them as a means of exchange or by taking constant denominated loans), even though constants have no underlying commodity. The second assumption had to do with liquidity and convenience: the FIB has to make sure that all its clients are able to purchase goods and services with constants using their debit cards at all points of sale in the region. Retailers would simply receive the equivalent amount of whatever currency they wish, it could be constants or any commodity backed money (CBM), the exchange rates would be calculated automatically in real time by the payment machines. What I meant by this is that FIB customers would not have to go around with constant bank notes asking whether any given retailer is ready to accept them. On day one of the constant's introduction, customers will be able to pay for their purchases anywhere they wish even though prices would be denominated in the dominating CBM of the region. Just as I can go with my pound denominated HSBC Visa card and make payments in the Eurozone or in the United States, or purchase something online from a Chinese based online website. I can do this because my bank has agreements with the card provider (Visa) and the Bank of England settles accounts with almost all other central banks in the world. Since the FIB is a highly reputed bank there is no reason to suspect it would not be able to achieve the same.

Some may argue that my second assumption does not suffice to make the constants as convenient as the dominating CBM and rightly so. The constant would only became as convenient as the dominating CBM if it were to become the dominating money in this society. Which is why in the previous section I introduced the idea of lending in constants at a preferential rate to gain clients. This certainly secures that at least some individuals will use the constant once it is introduced, i.e. that the constant has at least some positive demand. And as explained in the previous section, as the FIB fulfils his promise of keeping the constant's value truly constant, the public would gain more and more confidence in the new NCB money and the constant would gain market share against the dominating CBM.

There can be a positive demand for NCB money even though it has no intrinsic value, as I have just argued, as long as the public trusts the issuing institution and this new means of exchange can prove itself convenient enough. Given these conditions we can then say that private providers of NCB money can arise in a free market economy like Rothbard's anarcho-capitalism.

Following Carl Menger's story of the natural rise of commodity money, it is reasonable to think that CBM would historically precede NCB money, nevertheless, as long as price stability and convenience are desirable characteristics of money, which are both very reasonable assumptions to make, there would be a potential market for NCB money. And further, on consequentialist grounds, NCB money would presumably have a much lower production cost than Rothbard's preferred 100% reserve CBM, which needs massive secured vaults to store all the commodity backing it, as well as needing an ever increasing production of the chosen commodity if the economy is growing and deflation is to be avoided.

So it seems like Rothbard was too quick on asserting that "money is a commodity, period". Money is a generally accepted medium of exchange, it is likely to be a commodity in the state of nature but it could evolve into something else without state intervention. In the absence of coercion, money could be anything individuals choose to use as a medium of exchange, not necessarily a commodity, it could well be a promise to pay issued by a trustworthy institution as long as this promise to pay is sufficiently liquid. Individuals do not necessarily require money to have an intrinsic value in order to demand it.

When criticizing Nozick's justification for the minimal state, Rothbard wrote that if Nozick was so confident about the possibility of a state being conceived immaculately from the state of nature, that is, without violating anyone's rights, then, "it is incumbent upon Nozick to join anarchists in calling for the abolition of all existing States, and then to sit back and wait for his alleged invisible hand to operate." (Rothbard, 1982, Ch. 29, p. 232). In the same vein if Rothbard is so confident of the impossibility of a non-commodity backed currency being able to compete with commodity money in the free market, then it is incumbent upon him as a libertarian and an anarchist to accept that individuals should be free to choose whatever they want to use as money.

Conclusions

When I started this research I had a few very clear research questions I wanted to answer, looking at them now I know feel like I can answer some of them reasonably well while some others will take further research. Let us now revisit those research questions one by one and see what we have learned:

1. *Is Rothbard support for the Gold Standard congruent with his proposed institutional framework for a libertarian society?*

   This is probably the easiest question to answer based on this research and yet the answer is ‘yes and no’: Rothbard’s support for commodity backed money is perfectly congruent with anarcho-capitalism but it is not the ‘only’ kind of money that could legitimately arise in his ideal free society when departing from the state of nature.

   On the positive side of the answer, I found no deontological arguments against the mere existence of Rothbard's proposed gold standard. One that is not imposed by government coercion, but one that arises as the product of an invisible hand process like that described by Carl Menger (2009). There could be many consequentialist arguments against the gold standard, of course, basic economic theory tells us that a CBM could not possibly deliver price stability, it would only be as stable as the relative price of gold (or whatever chosen commodity) has historically been. In section 4 I have explained CBM’s inherent volatility due to its inelastic supply (relative to demand)[16]. Nevertheless, however volatile, such a system would certainly not violate anyone's natural rights and thus, it is indeed congruent with Rothbard's institutional framework.

   On the negative side of the answer, I have shown in section 4 and 5, that in an anarcho-capitalist society, a private financial institution could issue its own NCB money as long as it enjoys sufficient public trust and is able to create a convenient enough medium of exchange. Most importantly, it can do so without violating anyone’s rights since the acceptance of NCB money would be strictly voluntary. No individual would be coerced to accept NCB money or forced to stop using CBM.

   To be specific, what is not congruent with Rothbard’s own philosophy is his outright rejection of alternative monetary systems. Rothbard’s blunt assertions like “money is a commodity, period” are patronizing. It does not seem congruent of a libertarian to impose on others its own vision of the good, in this case of that which money should be. A more libertarian approach would be to say that money is whatever individuals choose to use as money, i.e. as a mean of exchange, unit of account and store of value. Individuals could also choose different moneys to fulfill money’s different functions, i.e.

[16] For a thorough historical critique of the Gold Standard see Friedman (1962, chapters III and IV).

there need not be a single money as Hayek shows in his proposal for 'the denationalization of money' (1978).

Rothbard seems to be almost like two different authors: on the one hand, we have the deontological Rothbard, who argues from principles or natural rights, departing from the state of nature and rejecting Nozick's minimal statist conclusions on the back of the absoluteness of property. We have seen how Rothbard rejects the Lockean proviso as well as Nozick's 'iff condition' on procedural rights. He ultimately rejects them because they seem like ad hoc constraints on individuals' absolute natural rights, of possessing their own bodies, being able to appropriate, possess, and exchange external objects, defend their property and to seek appropriate compensation when these rights are violated. On the other hand, we have consequentialist Rothbard who justifies the gold standard from the Austrian economics perspective. We could also classify these seemingly two authors as Rothbard the anarchist philosopher vs Rothbard the Austrian economist.

2. Is Hayek's proposal for the 'Denationalization of Money' a more suitable monetary system within a libertarian framework?

   My second original research question is somewhat trickier: first, we have seen that there is not 'one' libertarian framework but at least three of them within the liberty tradition, so it might be more appropriate to refer to each of them more specifically.

   In anarchism, it does not seem appropriate to ask such a question in the first place since there is no space for policy-making where there is no government. Under such a social system, money can be whatever individuals may choose money to be. In anarchism, there should be no patronizing about the right social choices since there are no social choices to be made, there are only individual choices.

   In an ultra-minimal as well as in a minimal state, the only legitimate function of government is that of the night watchman, i.e. to protect and enforce individuals' rights. A state that goes beyond this basic function becomes a small state or a big state perhaps, and in the latter case, we would no longer be within the liberty tradition. Thus, from this perspective it seems like I am trying to answer an inappropriate question, i.e., the answer would be the same as under anarchism: in the ultra-minimal as well as in the minimal state money will also be whatever individuals choose as money.

   A small state, in contrast, could make use of consequentialist arguments, like those for pure public good or externality internalization, to coercively impose a chosen monetary system. Going down this road seems to take us farther from libertarianism and closer to statism, although looking back at classical liberalism it would be difficult to argue that such a small state would not be within the liberty tradition, Adam Smith supported the Bank of England's monopoly of money for example (see, West's 1997.)

I acknowledge that were I to defend a particular monetary system as the most appropriate for libertarians, I would be doing the exact same thing I have been criticizing from Rothbard, i.e. trying to impose my own individual preference onto other individuals who should be free to choose the currency they most prefer, issue their own currencies, and decide upon that which constitutes money in a free society. I refrain from doing this and conclude instead that there is no single monetary system which we can deem as the most appropriate for libertarianism. Freedom of choice is to be extended to the monetary sphere if libertarians are to be fully consistent with their own philosophy, which takes me to my third research question.

3. Should libertarians embrace Hayek's proposal for the 'Denationalization of Money' rather than the gold standard?

   Libertarians should embrace Hayek's proposal only to the extent that it implies freedom for issuing one's own currencies and choosing which currencies to use, but libertarians need not be sympathetic with NCB money, that is an individual choice to make. An individual who considers himself libertarian can congruently choose to defend the gold standard as the best monetary system on consequentialist grounds but I doubt that libertarians could have any deontological grounds for the rejection of private currency competition; Rothbard himself acknowledges that "Hayek is surely correct that a free market economy and a devotion to the right of private property requires that everyone be permitted to issue whatever proposed currency… they wish" Rothbard (1991, p. 3).

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