Buying into Bitcoin:
An Austrian Analysis of the Virtual Currency’s Sustainability

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In 2009, software engineer Satoshi Nakamoto created a peer-to-peer electronic payment system that was designed to bypass any financial intermediaries, thereby fully securing the privacy of transactions. To answer this problem, he came up with Bitcoin—the operation started small at first, and then grew substantially until June 2011, when the Bitcoin market experienced a significant downturn, a crash if you will, but has continued gaining since that time. Thus far, Bitcoin has primarily gained the attention of tech geeks and libertarians, who hail it as the future of technology and money combined, or else vehemently rail against it. A great deal of this debate has centered around the viability of Bitcoin as a permanent money. As Bitcoin has grown in prominence, however, it merits more attention from the scholarly community, especially from economics. While Bitcoin exhibits some of the qualities of money, it is not money in the Austrian sense and therefore is not sustainable.

Bitcoin has certainly gained attention from the world. Many, many popular articles have been written on the merits and demerits, uses and advantages of Bitcoin in world today. Currently, Bitcoin is an investment valued higher than the US dollar, the British pound, and the Euro—at one point it was valued as high as fifteen US dollars. In an article, Lowenthal states that,

With a current estimated market capitalization of about $100 million, Bitcoin has recently graduated from a theoretical techno-anarchic project patronized by libertarians and hackers to a full-fledged currency prompting comment from technologists and economists.¹

The reason that Bitcoin has gained so much attention is that it is new, in a sense, but also that it has certain attractive qualities that people perceive as being better than government-issued currencies. Perhaps the most important among these is privacy, which is enabled by the way that Bitcoin was designed to operate.

In his 2009 article, Satoshi Nakamoto set out to answer a problem that he claimed was as yet unresolved. When people make transactions online, a third-party financial intermediary is necessary to seal the transaction. The system as it stands has developed financial intermediaries to help prevent fraud, to protect against double-spending, and to mediate disputes (among other things), because buyers and sellers who do not know each other need someone to vouch for the trustworthiness of the other party.\(^2\) Of course, all of these difficulties could be avoided by using cash or gold in person. But in the online age, however, trading in physical currency is simply not feasible, and using financial intermediaries is our solution to the problem.

The necessity of verifying trust, Nakamoto says, is the primary weakness of the current system. Involving financial intermediaries increases transaction costs and makes transaction information available to a party other than the buyer and seller alone, which some people in the market may wish to avoid.\(^3\) Bitcoin, in response, was designed to be an “electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party” (Nakamoto, 1). This, Nakamoto says, solves the problems posed by using a financial intermediary.

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\(^3\) Nakamoto, 1.
Instead of financial intermediaries, Bitcoin uses a peer-to-peer network to facilitate transactions. Peer-to-peer is a method of sharing files via the internet, which allows users to share files directly without uploading them to a server first. Applications like Skype and Napster have also used this type of network, and Bitcoin has now applied this concept to currency. Every Bitcoin user, or “miner,” can send Bitcoins directly to other users in payment for a good or service available for sale. These transactions are verified by the cryptography of the program. Lowenthal summarizes the process in this way.

Whenever you spend a Bitcoin, you cryptographically sign a statement saying that you have transferred the coin to a new owner and you identify the new owner by [his] public crypto key. Whenever they need to spend the coin, the new owner uses his private key to sign it over to some further owner. As soon as a transaction takes place, the recipient (who has a very strong incentive to ensure that you don't spend the coin twice) publishes the transaction to the global Bitcoin network. Now every Bitcoin user has incontrovertible evidence that the coin has been spent, and users won't accept that coin from anyone but the new owner. In this way, Bitcoins can be trusted as they are traded on the market.

Nakamoto intended for Bitcoin to mimic gold in the way that it accumulates. Users of Bitcoin are often called “miners,” because Bitcoins are mined, not bought. To get Bitcoins, users download the software, and then computers go through what is basically a glorified lottery. The peer-to-peer software on each individual computer is programmed to run a complicated algorithm, which, when solved, awards the user with a

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5 Lowenthal.
pre-set amount. The algorithm is solved about once every ten minutes. In 2009, when
Bitcoins first began to be used, up until now, that pre-set amount has been 50 Bitcoins.\textsuperscript{6}
That pre-set amount is supposed to decrease over time, until it eventually dwindles to
zero, which is estimated to happen around 2030. Like gold, the software is set to increase
the money supply slowly and steadily, until eventually the system reaches a stable
amount of Bitcoin, pre-set at 21,000,000 BTC.\textsuperscript{7} Divisible to the eighth decimal place, the
value of a single Bitcoin could continue to rise substantially in the long term, were it to
become even popular than it is.\textsuperscript{8} However, unlike gold, Bitcoin mining is unable to
respond to changes in demand. In the real world, gold is indeed mined slowly and would
eventually run out, but it is mined in industry in response to demand. But although its
similarities to gold are perhaps unsatisfactory, its design has caught the attention of many
technical commentators.

Nakamoto’s solution, a system without financial intermediaries, does have
downsides. Any non-reversible transaction, while giving the desired privacy to
consumers would want it, also has inherent risks. Lee offers an example in his article
summarizing the risks of Bitcoin. “For example,” he says,

unless the user backs up his cell phone separately from his computer, losing the
phone would mean losing the Bitcoins. A multifactor authentication scheme also
can’t protect a user who is tricked into authorizing a payment to the wrong
party.\textsuperscript{9}

\textsuperscript{6} Aron.
\textsuperscript{7} Lowenthal.
\textsuperscript{8} Ibid.
Naturally, Bitcoin users seem to think that the benefits outweigh the possible risks of using Bitcoin, and Bitcoin use has spread beyond the expectations of some. In fact, despite the risks, a large portion of the community finds certain qualities in Bitcoin that make it more attractive as a currency than gold.

As mentioned above, one of the most attractive qualities of Bitcoin is the security and privacy it offers. Satoshi Nakamoto cites this in his original paper as one of the main reasons for avoiding financial intermediaries. He says,

The traditional banking model achieves a level of privacy by limiting access to information to the parties involved and the trusted third party. The necessity to announce all transactions publicly precludes this method, but privacy can still be maintained by breaking the flow of information in another place: by keeping public keys anonymous. The public can see that someone is sending an amount to someone else, but without information linking the transaction to anyone.\(^\text{10}\)

This is exactly what Nakamoto desired to avoid. With Bitcoin, nobody but the buyer and seller is aware of the transaction that has taken place. Admittedly, it is fairly simple for a relatively accomplished tech expert to trace the people or companies making transactions by their IP addresses. Silk Road, an online black market, known for selling narcotics in the U.S., for example, is simple to trace.\(^\text{11}\) Practically anyone who accesses the site can be traced, using their IP address, back to their home address. By using an anonymizing service like Tor, however, it is possible to bypass this difficulty. Mick explains the reason for this:

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\(^{10}\) Nakamoto, 6.

This is because Bitcoin "accounts" are regularly generated and a single individual holds keys to multiple microaccounts rather than a single large account. To an outsider, this account is just a random-looking string -- nobody can tell who owns it. But using your personal key, you can sign transactions on the accounts you own.\(^\text{12}\)

Therefore, he says, “As long as the public/private key cryptography scheme is sound, and you anonymize your IP, even the government will have a relatively tough time tracking you.”\(^\text{13}\) Using Bitcoin, buyers and sellers are able to soundly anonymize their business transactions.

Another attractive feature of Bitcoin is its perceived freedom from the government eye. This is attractive to more people than money launders and drug dealers who are taking advantage of the anonymity the system offers; it is also extremely attractive in a time like this when the average person’s faith in government is diminishing. Bitcoin is thus far non-taxable and has no central monetary authority. Therefore, schemes like quantitative easing are impossible.\(^\text{14}\) The value of the Bitcoin is relatively unaffected by the astronomical spending figures of an increasingly profligate government. To those who distrust paper currencies, Bitcoin’s steady and predictable rate of inflation is comforting.\(^\text{15}\) For the time being, it seems, Bitcoin’s popularity is partially due to the perception that it is not under the government eye.

\(^{12}\) Mick.
\(^{13}\) Ibid.
\(^{15}\) Ibid.
As a theoretical currency, Bitcoin needs more than a few helpful aspects as enumerated above. However, Bitcoin also displays a number of the true characteristics of money, which people in both academics and pseudo-academics have noticed.

Cash has features like anonymity and eminent portability, but also comes with the downside that you have to physically move it from place to place to use it. Credit cards and other trust-based electronic currencies can be used instantly over any distance, but you have to attach your real identity to the purchase.\textsuperscript{16}

The existence of the multiple desirable qualities that exist in our two most commonly-used media of transaction in a single medium has contributed greatly to Bitcoin’s increased popularity. It also reduces transaction costs, as it is faster and requires no financial intermediary.\textsuperscript{17} However, in addition to being portable, Bitcoin exhibits more of the traditional qualities of money. It is extremely durable, provided the software remains glitch-free; it is also highly divisible, to the eighth decimal place. The combination of these qualities makes Bitcoin seem, at the very least, to be a relatively qualified candidate for use as a currency.

Regardless of all this, public and popular opinion about Bitcoin is hugely varied. While some are suspicious of Bitcoin and its future and are reluctant to invest in it, others boldly champion Bitcoin as the future of money in the age of technology. Michael Suede, founder of the blog “Libertarian News,” is among the latter. He has voiced his opinion that Bitcoin is not only adequate as a medium of exchange, but that it is actually superior to gold in this function because of the qualities it possesses which past media of exchange have also possessed, as well as its current freedom from the supervision of the

\textsuperscript{16} Lowenthal.
\textsuperscript{17} Bits and Bob.
government. But some think that Bitcoin is a fad, the value of which will eventually dwindle to zero, after a quick, though tremendous, rise and fall. Experience is on their side. In June 2011, Bitcoin experienced its first huge crash.

At the opening bell at Mt. Gox, the world’s largest Bitcoin exchange, a single BTC cost $28.919 USD. By mid-day that total had plunged to $20.01 USD -- a drop of 30.8 percent.

Since the crash, the Bitcoin market has rebounded, but not to level that it was prior to June 2011. Still, the fears of certain commentators remain unassuaged.

Those whose theories most closely concern economics fight over whether or not Bitcoin fulfills the requirements of Ludwig von Mises’ famous Regression Theorem. While some believe that the emergence of Bitcoin disproves Mises’ Regression Theorem (among them many who believe that Bitcoin is the future of money), others who take an Austrian view of economics are adamant that Bitcoin cannot be money because it is a fiat currency and violates the Regression Theorem. Amateur economists focus on two main themes: 1) the currency has no commodity value, and 2) it cannot have an exchange value because it had no use value prior to being used as money.

One commentator notes,


While the idea of attempting to get rid of the Bankster monopoly on creating money out of thin air is commendable, Bitcoin is also money created out of thin air. Bitcoin is just substituting one bogus medium of exchange for another.\footnote{Kramer.}

Admittedly, since Bitcoin is developing at best in academia, but a hot topic in technical news, the majority of these sources are popular. However, a review of the popular literature pertaining to Bitcoin is helpful, because it reveals the thoughts of market actors on the subject and a number of actual characteristics of Bitcoin, as enumerated above. When these characteristics are analyzed against Austrian monetary theory, Bitcoin does not hold up as a legitimate money, as many in the popular literature have suggested, because it did not begin as a commodity money and therefore has no intrinsic value and violates Mises’ Regression Theorem.

While different Austrian economists express Austrian monetary theory in differing ways, the substance is the same. I have chosen in my analysis to take the majority of my explanation of the Austrian theory on the development of money from Ludwig von Mises’ work *Theory of Money and Credit*. The primary problem that Bitcoin faces as a potential money arises early on in the analysis—in the face that money cannot arise out of nothing. On the contrary, money is complex and \emph{cannot} be created out of thin air, as many today believe both in creed and in practice. Robert Murphy explores what would happen if this were so:

\begin{quote}
One possible explanation is that a powerful ruler realized, either on his own or through wise counselors, that instituting money would benefit his people. So he then ordered everyone to accept some particular thing as money. … [But] as Menger pointed out, we have no historical record of such an important event,
\end{quote}
even though money was used in all ancient civilizations. Second, there's the unlikelihood that someone could have invented the idea of money without ever experiencing it. And third, even if we did stipulate that a ruler could have discovered the idea of money while living in a state of barter, it would not be sufficient for him to simply designate the money good. He would also have to specify the precise exchange ratios between the newly defined money and all other goods. Otherwise, the people under his rule could evade his order to use the newfangled "money" by charging ridiculously high prices in terms of that good.\footnote{Murphy, Robert. "The Origin of Money and Its Value." \textit{Mises Daily}. September 29, 2003. http://mises.org/daily/1333 (accessed November 7, 2011).}

Money decreed in this way is called “fiat” currency. The term “fiat” refers to something created without effort, or established by decree. Therefore, fiat currency refers to a currency called into existence through force and not backed by any commodity or specie. Although Bitcoin is not an \textit{enforced} currency, its utter lack of connection to a commodity is its greatest weakness.

Instead, Austrian theory states that money must first come into existence as a commodity available for exchange in the market. Economists often use Robinson Crusoe illustrations to demonstrate the development of a medium of exchange without worrying about the complex interactions of a fully-fledged economy.\footnote{Radford, R. A. "The Economic Organisation of a P.O.W. Camp." \textit{Economica} 12 (1945).} This is perhaps wiser, as well as more realistic, since media of exchange do not begin in complex economies, but always have their beginnings in a relatively primitive, barter economy.

In a barter economy, two types of exchange are possible \textit{direct} and \textit{indirect exchange}. Direct exchange is like a third-grade swap. Johnny trades his apple to Alice for her pudding cup. Crusoe trades his fish to Friday for his papayas. Each trades away
something that he values less in order to obtain something that he values more. But what happens if Johnny wants Alice’s pudding cup, but Alice does not want Johnny’s apple? Johnny needs to trade his apple for something that Alice values more than her pudding cup. If Alice values a banana more highly than her pudding cup, Johnny can trade his apple to Mike for Mike’s banana, and then trade the banana to Alice for her pudding cup. This is an example of indirect exchange—using a medium to conduct trade. He does this, as Ludwig von Mises puts it, “not because he desires to consume it, but in order to exchange it for a second commodity … which he does desire to consume.”

Johnny trades his apple for Alice’s pudding cup, as in the first example, but using a banana as a medium of exchange.

Now, as an economy grows more complex, “Indirect exchange becomes more necessary as division of labor increases and wants become more refined.” A software engineer could hardly approach a meat counter and ask for a pound of ham in exchange for an hour of his software engineering labor. The owner of the meat counter likely has no use for a software engineer. In order to exchange, then, the meat counter and the engineer must engage in indirect exchange. However, indirect exchange has transaction costs. Time and productivity are both wasted in the individual search to find something that the other will accept in payment so that exchange can be made. Modern, complex economies have only been able to arrive in this state of specialized production and demands that they have today as a result of the identification of the most marketable

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25 Ibid.
goods in society. Mises says that not all goods are equally marketable.\textsuperscript{26} Mises elaborates:

While there is only a limited and occasional demand for certain goods, that for others is more general and constant. Consequently, those who bring goods of the first kind to market in order to exchange them for goods that they need themselves have as a rule a smaller prospect of success than those who offer goods of the second kind. If, however, they exchange their relatively unmarketable goods for such as are more marketable, they will get a step nearer to their goal and may hope to reach it more surely and economically than if they had restricted themselves to direct exchange.\textsuperscript{27}

Obviously, neither a pound of ham nor an hour of software engineering labor falls into this category. Therefore, they would engage in indirect exchange, “endeavor[ing] to exchange … superfluous commodities, not merely for more marketable commodities in general, but for the most marketable commodities; and among these again he would naturally prefer whichever particular commodity was the most marketable of all.”\textsuperscript{28} The most marketable commodity, of course, is money.

An interesting and instructive example of how money comes to be in the real world is that of a prison or a P.O.W. camp, in which things like cigarettes, medicines, or other creature comforts act as money. Naturally, there are differences between the two scenarios; however, experience has shown the economic lessons of indirect exchange that we have discussed above. Radford compares the situation to “desert island” example of economic development common in Austrian thought experiments. As on a desert island,

\textsuperscript{26} von Mises.
\textsuperscript{27} Ibid.
\textsuperscript{28} Ibid.
“everyone receives a roughly equal share of essentials; it is by trade that individual preferences are given expression and comfort increased. All at some time, and most people regularly, make exchanges of one sort or another.\textsuperscript{29} He goes on to describe the conditions in his particular case, a P.O.W. camp during World War II:

Our supplies consisted of rations provided by the detaining power and (principally) the contents of Red Cross food parcels – tinned milk, jam, butter, biscuits, bully, chocolate, sugar, etc., and cigarettes. So far the supplies to each person were equal and regular. Private parcels of clothing, toilet requisites and cigarettes were also received, and here equality ceased owing to the different numbers dispatched and the vagaries of the post. All these articles were the subject of trade and exchange.\textsuperscript{30}

Using all resources available to them (i.e. what had been given them), the prisoners initially engaged in direct barter trade—a cigarette for a chocolate bar, or whatever the time seemed to call for—in pursuit of the immediate satisfaction of their wants. But as time passed, trade grew more and more complex. “Within a week or two,” Radford continues,

as the volume of trade grew, rough scales of exchange values came into existence. Sikhs, who had at first exchanged tinned beef for practically any other foodstuff, began to insist on jam and margarine. It was realized that a tin of jam was worth 1/2 lb. of margarine plus something else; that a cigarette issue was worth several chocolates issues, and a tin of diced carrots was worth practically nothing.\textsuperscript{31}

\textsuperscript{29} Radford. \\
\textsuperscript{30} Ibid. \\
\textsuperscript{31} Radford.
Eventually, cigarettes arose as the preferred medium of exchange, the commodity in terms of which the prices of all other commodities was reckoned. Although they could be reasonably consumed and often were, unlike gold, they served fairly well as a medium exchange in their peculiar environment.\(^{32}\)

In this way, the most marketable becomes the medium of exchange—which is, by definition, money. Its main function, as stated by Mises, is to “facilitate the business of the market by acting as a common medium of exchange.”\(^{33}\) Money also expresses secondary functions—it also acts as a transmitter of value and a general medium of payment.\(^{34}\) From these secondary functions of money are derived the necessary properties of money as defined by Austrian economists—durability, portability, divisibility, high value per unit weight, and high initial demand.\(^{35}\) In most societies, gold and silver have eventually emerged as money commodities, but this has not been true everywhere. Cocoa beans, livestock, or even blue jeans have been money elsewhere, or cigarettes at times in German POW camps.\(^{36}\) While all of these are necessary for a “best” and lasting money that will not be soon supplanted, that are just that—secondary. What functions as money is generally obvious in an economy, but when it is not it must be measured against money’s definition and primary characteristic.

Another challenge that has often been brought against Bitcoin’s theoretical status as money is that it does not satisfy Mises’ Regression Theorem. After all, the value of commodity money is not only its commodity value—it is also its value in exchange.

Mises describes the particulars of this interaction:

\(^{32}\) Ibid.
\(^{33}\) von Mises.
\(^{34}\) Ibid.
\(^{35}\) Ibid.
\(^{36}\) Radford.
In the case of money, subjective use-value and subjective exchange value coincide. Both are derived from objective exchange value, for money has no utility other than that arising from the possibility of obtaining other economic goods in exchange for it. It is impossible to conceive of any function of money, *qua* money, that can be separated from the fact of its objective exchange value. As far as the use-value of a commodity is concerned, it is immaterial whether the commodity also has exchange value or not; but for money to have use-value, the existence of exchange value is essential.\(^{37}\)

In fact, Mises goes so far as to say that money has no use value whatsoever apart from subjective exchange value.\(^ {38}\) “In contrast to commodities,” he said, “money would never be used unless it had an objective exchange value or purchasing power. The subjective value of money always depends on the subjective value of the other economic goods that can be obtained in exchange for it. Its subjective value is in fact a derived concept.”\(^ {39}\)

With only this information, one could infer that the content of the Regression Theorem does not pose an obstacle to Bitcoin as money. Bitcoin is not based in anything, but this seems to suggest that the exchange value of Bitcoin is what matters. Today, its purchasing power is derived from yesterday’s individual assessment of the marginal utility of money, which is in turn derived from yesterday’s purchasing power. Robert Murphy summarizes this problem:

People today expect money to have a certain purchasing power tomorrow, because of their memory of its purchasing power yesterday. We then push the problem back one step. People *yesterday* anticipated today's purchasing power,

\(^ {37}\) von Mises.

\(^ {38}\) Ibid.

\(^ {39}\) Ibid.
because they remembered that money could be exchanged for other goods and services two days ago. And so on.\textsuperscript{40}

But this theory is unsatisfactory because of its circularity. Eventually, the purchasing power and the marginal utility of the good must be rooted in a commodity. Mises does, in fact, do this in \textit{Theory of Money and Credit}. Here, it is summarized by Robert Murphy:

We can trace the purchasing power of money back through time, until we reach the point at which people first emerged from a state of barter. And at that point, the purchasing power of the money commodity can be explained in just the same way that the exchange value of any commodity is explained. People valued gold for its own sake before it became a money, and thus a satisfactory theory of the current market value of gold must trace back its development until the point when gold was not a medium of exchange.\textsuperscript{41}

Thereby, as in the last argument, Mises shows definitively that money cannot be created out of nothing, but must be derived from a commodity on the market.

Bitcoin, interestingly enough, does bear some of the proper qualities of money. It also sidesteps certain transaction costs that have hindered financial industries and banking consumers for decades. But although public opinion on the matter is widespread and some believe wholeheartedly in Bitcoin as the future of money, it does not hold up under Austrian analysis. From a theoretical standpoint, Bitcoin is not based in a commodity, and therefore cannot have modern exchange value. Additionally, money is defined as the general medium of exchange—and Bitcoin simply does not satisfy this

\textsuperscript{40} Murphy.
\textsuperscript{41} Ibid.
requirement. It is accepted in very few markets, and its possibilities for exchange into real-world dollars are gradually diminishing.

But if Bitcoin is not money, what is it? Two examples are helpful in analyzing the properties of Bitcoin as they have been seen in experience. Mass-subscription multiplayer online role-playing games are a huge product in today’s world. These games are by no means simple—they develop economies that simulate the real world, complete with a functioning currency. Users employ this currency to engage in trade in the game world, the influence of the currency has also begun to spill into the real world. Like these virtual currencies, Bitcoin functions not as a true money, but as a commodity to be traded on the market.

Like the real world, it takes time and energy to amass wealth in the game world. As a result of this, certain players choose to devote their time to only mining gold, or amassing wealth in the most direct form, so that they can sell that gold to other players for real-world profit. In exchange for an amount of the virtual-world currency or advancement of a certain number of levels, players accept real-world money, such as the U.S. dollar, Euro, or pound. In the simplest terms, these “gold farmers” are providing a service, which is easily tradable on the market. In a number of developing nations, this has turned into quite an industry. Gold farmers provide different services in the game worlds for real-world money, even though it is explicitly against the rules of play. This can also include anything from speculating on the price of currency, to advancing a character up a number of levels. Originally, gold farmers marketed their wares on eBay and other, similar establishments. However, since this type of trade is explicitly against

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43 Ibid.
44 Ibid.
the rules of most of these games, eBay and PayPal experienced pressure to stop supporting transactions with virtual game currencies. When these, too, were stopped, other trading institutions cropped up online through which the demand for the good could be satisfied.45

Bitcoin is both like and unlike the currencies used in online role-playing games. Like ISKs or LindenDollars (L$), Bitcoin is an online currency and is not backed by anything.46 For the moment, it has value because people value it. Bitcoin also acts as a good in the market that provides a service also provides a service to people. It has been suggested that whereas virtual online gaming currencies are exchanged for virtual services, Bitcoin is virtual currency that is exchanged for real world services.47 But the lines between the two are not so defined. As previously discussed, Bitcoin has attractive features that give an incentive to use it. Virtual currencies provide advancement in the game. Both Bitcoin and the online gaming currencies have value because they provide a service which is valuable to consumers. Bitcoin is unlike online gaming currencies, because has no central authority, controlling the money supply by whims and caprices. Gaming currencies like LindenDollars are ultimately controlled by LindenLabs, the creator of the game.48 It could be argued, however, that a pre-set level of inflation that imperfectly attempts to mimic the mining of gold—not at all accounting for money demand—is hardly a more satisfying solution.

45 Heeks.
46 Mick.
47 Ibid.
48 Ibid.
Another helpful example is that of E-Gold, another online currency like Bitcoin, which instead allows users to directly trade rights precious metals over the internet. Weisul explains the logistics of the process,

E-gold … running in the opposite direction from central banks the world over, is offering a gold-backed currency for the Web. Send a check to e-gold, and they'll assign you the corresponding fraction of an ingot sitting in Switzerland - your choice of gold, silver, platinum or palladium.

Account statements are denominated in ounces and grams, not dollars or marks. Sending a payment in e-gold to another e-gold account is easy and carries a 1 percent commission, up to a maximum of 50 cents. To pay someone who does not accept e-gold directly, the account holder fills out a check online, and e-gold sends a third-party check to the creditor.⁴⁹

Like Bitcoin, E-Gold is not a bank and is therefore not subject to banking regulations.⁵⁰ Originally, E-Gold was designed to avert Y2K risk—concerned citizens could buy into E-Gold and rest assured that their money was safe. Apart from that, however, E-Gold was an investment method—if precious metals appreciated in value, holders benefited. Holders were also protected from any volatility in the market not related to Y2K. Also like Bitcoin, this system cuts a certain amount of transaction costs associated with financial intermediaries, but also with using precious metals as currencies. Unlike Bitcoin, however, E-Gold trades the rights to commodity money—an actual, physical, and valuable good—while Bitcoin allows users to directly trade the rights to nothing.

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⁴⁹ Weisul, Kimberly. “Golden opportunity?” Inter@ctive Weekly, May 31, 1999: 60.
⁵⁰ Ibid.
Bitcoin is new and therefore untested. But the future of Bitcoin is, at best, tenuous. In June 2011, when eBay and PayPal stopped transacting with Mt. Gox, the primary source through which Bitcoin is currently exchanged, the Bitcoin market declined significantly. The market has recovered slightly since, but not to pre-June levels. A suggested reason for the crash was that Bitcoin had been experiencing problems with liquidity. While ordinary global currency markets allow investors to change your currency for a foreign currency or currencies almost instantly, Bitcoin does not accept debit/credit transactions. They initially accepted payments from eBay, which uses PayPal as a financial intermediary. But shortly before the Bitcoin crash, PayPal stopped supporting transactions with Mt. Gox, because of its long-standing policy against virtual currencies. Mick suggests that Bitcoin suffered because its users were concerned that Bitcoin was an illiquid currency, not backed by anything—which it technically is not. If the initial crash after this first happened is any indication of its future, the Bitcoin market will eventually fall out of popularity and dwindle in value. In essence, this suggests that Bitcoin has been sustained for so long because it was in a sense redeemable. But as this continues to be threatened, even the vehement supporters of Bitcoin will not be able to believe it into possibility.

Additionally, legal obstacles could possibly create problems in Bitcoin’s future. It is relatively untraceable, non-taxable, and has already drawn quite an amount of criticism due to claims that Bitcoin networking supports the activities of money launderers and criminals. E-gold ran into similar troubles in 2007, when it was indicted

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51 Mick.
52 Ibid.
on charges of money laundering, conspiracy, and operating an unlicensed money-
transmitting business:\textsuperscript{53}

The company has been under investigation since before a 2005 Secret Service raid
that ended with no charges filed. When it announced the new indictments, the
Department of Justice declared that "the E-Gold payment system has been a
preferred means of payment for child pornography distributors, identity thieves,
online scammers, and other criminals around the world to launder their illegal
income anonymously."\textsuperscript{54}

Top company officials immediately claimed that these charges were false, and that they
shut down any accounts that were suspected to be used for money laundering purposes.
But with the indictment, the Department of Justice seized the company’s assets, valued at
approximately $1.5 million. Bitcoin is not yet under a tremendous amount of suspicion,
but public figures are speaking out against it with increasing frequency. Yet again in June
2011, Senators Charles Schumer and Joe Manchin decried Bitcoin for its seeming
callousness in the face of evidence that the system had been used in transactions with Silk
Road.\textsuperscript{55}

"The only method of payment for these illegal purchases is an untraceable peer-
to-peer currency known as Bitcoins," Schumer and Manchin wrote. "After
purchasing Bitcoins through an exchange, a user can create an account on Silk
Road and start purchasing illegal drugs from individuals around the world and
have them delivered to their homes within days." In a press statement, Man-chin
claimed Silk Road posed a "growing threat to all of our families," would "hurt our

\textsuperscript{54} Ibid.
ability to create and save jobs," and threatened "total destruction" in West Virginia's communities.\textsuperscript{56}

If these heavy sentiments spread, as with E-gold, it is not only possible but likely that Bitcoin will eventually be shut down. At any rate, an over-regulated Bitcoin would lose a great deal of the initial attraction that consumers have had thus far and use of the system will dwindle.

While Bitcoin’s future seemed bright, in reality it is bleak. A new, tech-savvy idea was adopted and heralded as the future, for sound reasons as well as unsound. Bitcoin seemed to iron out wrinkles in the modern banking system, as well as protect against government profligacy. However, in the end, Bitcoin does not measure up against Austrian monetary theory. It lacks a base in capital, and without that base it is doomed to fail. Even if it could survive, precedent suggests that Bitcoin would not be allowed to survive unregulated if at all, which would ultimately destroy the subjective value of the commodity. It is, perhaps, telling to note that the crash of the Bitcoin system came in June of 2011, the same month in which its liquidity and legality both began to be questioned. Ultimately, therefore, because it has no foundation in correct monetary theory, Bitcoin is not sustainable and is unlikely to survive in today’s economy.

\textsuperscript{56} Suderman.