

11 Michael Kumhoff

To begin his second presentation, Michael admits that he doesn't understand distributed ledger technology (DLT), the foundational technology of cryptocurrency. Not many of us do. Nor do we need to. We *do* need to distinguish that cryptocurrency, as currently practiced, is only *one* possible use of DLT, commonly known as "blockchain".

Blockchain

Blockchain can be put to many different uses, the common feature being secure transfer of information of one kind or another, without the participation and potential interference of a "trusted third party". One such use is scientific collaboration. A good explanation of what blockchain can be used for is here:

<https://www.natureindex.com/news-blog/could-blockchain-unblock-science>

excerpt:

"The growing interest in scientific applications of blockchain is motivated by long-standing concerns over the reliability and transparency of contemporary science and the inequities of the academic publishing industry."

In the many articles about cryptocurrencies that I have read, and interviews with crypto-gurus I have watched, cutting the banks and government out of the picture entirely is the stated ideological goal for much the same reasons quoted above about scientists' interests in blockchain. Just replace the words "scientific" and "science" in the quote above with "monetary" and "banking".

The banks, previously essential for providing secure information transfer services to commerce can now be bypassed by a competing technology that many view as an heroic freedom movement, completely oblivious to the fact that ownership of the means of production will allow capitalists to accumulate any form of money we care to create. A famous German guy with a big beard published this revelation in 1867.

The "coin model" of money

So far, cryptocurrencies have mostly imitated Bitcoin's "coin model" of a fixed quantity made valuable by its own scarcity, a very old concept of money that was necessitated by the very limited technology of the past. The only way to transfer "value" conveniently over long distances was by means of the physical transfer of precious metal coins.

"Precious metals", gold and silver, were difficult to extract from the ground. This guaranteed that these metals would forever remain scarce and therefore "precious".

On the other hand, in the Twilight Zone of today's financialization fantasies, there is no limit to how many of these "coin model" cryptocurrencies that can be created, making the value due to scarcity concept a macroeconomic absurdity. How do you divide the national output by infinity to get a price level? I suggest seeing these "coin model" cryptocurrencies as small fires with the potential to burn down the "scarcity model" of money altogether.

The participation rate that shot Bitcoin up from a fraction of a penny to \$20,000 US was due to it being first out of the gate and very successfully promoted as it continues to be. The name and logo were well chosen. The next step is a quarter million, according to the current hype.

<https://www.independent.co.uk/life-style/gadgets-and-tech/news/bitcoin-price-prediction-2019-tim-draper-cryptocurrency-usd-a8912776.html>

But what is the basis of its "value"? Widely-shared hopes of getting something for nothing on the one hand and acceptance for real value on the other. These "crypto-revolutionaries" often speak of banks creating "money from nothing" so why can't we? I hate that phrase. The truth is that bank credit is "money from our lifeblood". Coin model cryptocurrencies are fraud and theft for much the same reason as counterfeiting is fraud and theft.

Bank Credit

Bank credit money represents the borrower's commitment to produce something in demand by fellow humans in order to repay the "loan". Very often that is 30 years worth of productivity. The current banking system is problematic in its design, as I am not hesitant to point out, but the basis of bank credit money is something that could not be any more real - the lifeblood of borrowers - mostly homebuyers and business owners.

Something for Nothing

This is most definitely not the case with the “coin model” cryptocurrencies. Having produced nothing, the early Bitcoin gamblers have acquired enormous real world purchasing power. New gamblers are salivating over predictions like the one above. Twenty-one million Bitcoins multiplied by \$250,000 each is \$5.25 trillion.

This is taking without giving on an unprecedented scale! These people are picking our pockets now and intent on picking them at higher orders of magnitude. Coin model cryptocurrencies like Bitcoin are outright frauds - not productive investments. That should be obvious, but apparently, most people are dazzled or confused by the technology and too many can't wait to jump on the magic money greed-wagon themselves.

The truth is that such cryptocurrencies lay their claims on limited real world production in with the claims in conventional money of those who actually produced it. This is dividing the same pie into more pieces. If four people all contributed equally to making a pie, would they welcome a fifth claim on the pie from an outsider who contributed nothing? No. Why should they? But when it comes to cryptocurrency it seems that the public is fooled by this counterfeiting in a new disguise. So are most economists, bankers and politicians.

But not all are fooled. Bill Harris, former CEO of Intuit and founding CEO of PayPal and Personal Capital had this to say at:

<https://www.vox.com/2018/4/24/17275202/bitcoin-scam-cryptocurrency-mining-pump-dump-fraud-ico-value>

“In what rational universe could someone simply issue electronic scrip — or just announce that they intend to — and create, out of the blue, billions of dollars of value? It makes no sense.

All of this would be a comic sideshow if innocent people weren't at risk. But ordinary people are investing some of their life savings in cryptocurrency. One stock brokerage is encouraging its customers to purchase bitcoin for their retirement accounts!

It's the job of the SEC and other regulators to protect ordinary investors from misleading and fraudulent schemes. It's time we gave them the legislative authority to do their job.”

I say it's time they got a kick in the pants and woke up! Economists, bankers and politicians have a duty to know better and alert the public. By their inaction, they become accessories to this fraud.

Cryptocurrency's worthless claims, once accepted for value in the real world, would logically devalue the national currency and thus the conventional money holdings of everyone else in the country, a form of hidden theft identical to undetected counterfeiting. Fortunately for the rest of us, most cryptocurrencies have gone bust and the successful ones are usually held like money under the mattress, waiting for the next big run-up. Thus neither has resulted in many claims on real production ... so far.

Legal Tender

In contrast to counterfeit, a “respectable” and neutral-effect central bank cryptocurrency should be called “Legal Tender Coin”, or “Crypto-cash”. It should enable “legal tender” to be stored independent of any bank account, exactly the way paper cash always has, and should be simply one of three forms a legal tender money unit can take: accounting entry at the central bank, physical cash, or crypto-cash. None of these should pay interest. It sounds innocent enough.

As Michael puts it, this is a “new feature” of the established system, “not a new world” he is proposing. The current system remains in place. Physical cash is replaced or added to with crypto-cash that bypasses the commercial banking system by giving the populace direct access accounts at the central bank - picture a central bank ATM.

Michael describes CBDC as not being “debt-based”. He states that CBDC would only be issued in exchange for “eligible securities”, a specific list of which is not given. Logically, we might assume they would be the same “safe” government bonds as well as, since QE, mortgage-backed securities that central banks buy now in order to create new reserves and cash.

How is this not “debt-based”? Both of these are debts - one of the national taxpayers, the other of members of the private sector. If these “eligible securities” are equities, their value is up to the market. In a financial crisis, debts could go unpaid and equity prices could plummet.

This proposed direct access to the central bank was never done with physical cash and coin. Perhaps there is a reason.

What if ...?

Presumably, the public should be able to exchange physical cash and coin for CBDC. The banks pay measly interest rates on savings. Savers run the risk of a bail-in confiscation or total bank failure. If the central bank launched a sales pitch that CBDC is “safe” money, why would there not be a run on the retail banks as savers move massive amounts of retail bank savings to central bank “safety” or crypto storage?

Or ... the process might instead be a gradual erosion of the reserve base owned by banks which, unless remedied, would cause a significant shrinkage in bank credit creation. Any time money creation by banks slows down, for any reason, the result is mathematically inevitable defaults. See my comments on Steve Keen’s presentation: <https://conference2019.positivapengar.se/steve-keen/>

To make up for the banking system’s loss of reserves to the public, the central bank would have to buy the equivalent amount of new debt. This is currently done by buying debt (government preferred) from retail banks. If the transfer of reserves into public hands were sufficiently large, the amount of debt needing to be bought by the central bank to restore a functional reserve level for retail banking could dwarf past efforts at quantitative easing.

This would be in addition to the “eligible securities” the central bank would need to buy in order to create the CBDC. And, if CBDC became really popular, the central bank’s balance sheet would need to expand manyfold. That could require far more “eligible securities” than are available.

What if borrowers prefer to borrow “safe” CBDC as “loanable funds” from private non-bank lenders instead of creating new money as retail bank credit? The result would be a slowdown in bank credit money creation. According to my analysis, any time the creation of new bank credit slows down, for any reason, the result is a wave of mathematically inevitable defaults, a financial crisis.

Blaming the Borrowers not the System

What causes these periodic financial crises that economists routinely fail to see coming? The usual answer is “too much debt”. However, observing that a default collapse was caused by “too much debt” is just a truism, not an analysis. The roof fell in because of “too much snow” is an observation. An analysis would be: the roof fell in because it wasn’t designed properly for the conditions that would inevitably occur and the point of failure has been identified.

“Too much debt” is generally thought of as debt exceeding the capacity of the borrowers to repay, an earning problem. Picture reckless borrowers getting in over their heads or blame the moral hazard that allowed reckless bankers to count on a bailout if all went wrong, pushing loans on unqualified borrowers who then defaulted. Both were contributing factors, but not the whole picture. According to my analysis, anything that tightens the money tap of new bank credit, for any reason, banker panic or borrower exhaustion alike, has to precipitate mathematically inevitable defaults - by design.

Musical Chairs

Properly understood, the math of the bank credit system is a variation on the game of musical chairs. Money created as principal debt gets lent multiple times as existing money creating impossible principal debt. Picture the number of players, initially one per chair, the original borrowers, increasing severalfold as each dollar is saved at and replaced by a bank or lent as existing money by a non-bank. The number of chairs stays the same. The number of people in need of a chair increases.

Losers are mathematically inevitable whenever the music stops. To keep the music playing, more chairs need to be constantly added. Total principal debt to banks, what we use as money, must forever increase. When it doesn’t, that is to say, when the creation of new bank credit fails to stay ahead of the current rate at which bank credit is being repaid and extinguished, the shortage of chairs becomes evident.

Of course the weakest borrowers and the most over-leveraged lenders are the first round of losers. Viewed from my analysis, the trigger that starts a default crisis could be any number of causes; but the full extent of the resulting defaults is determined by how much impossible principal debt needs to be eliminated from the system as a whole to get back to a level that normal velocity can sustain. Bank savings are impossible principal debt. So is any lending of existing bank credit by anyone: mutual fund, Uncle Bob, the mafia ...

Picture a juggler attempting to juggle too many balls. Some have to be dropped so the juggling can continue. If not done in time, the dropping won't be done in a controlled fashion. Unfortunately, banks are like jugglers who get paid for every ball they can keep in the air, which is a motivation to keep their balance sheets looking healthy by keeping too many non-performing loans on their books for too long.

To sum up: impossible principal debt is the number of balls that have to be kept in the air by borrowing from Peter to pay Paul and vice versa. Dropped balls are defaults that reduce the impossible debt. Impossible principal debt is a direct result of a high savings to chequing ratio, a lot of non-bank lending and any reduction in velocity, the rate at which money changes hands. Please read my comments on Steve Keen's presentation at: <https://conference2019.positivapengar.se/steve-keen/>

Think Outside of the Box

It is my position that real progress will only be made when money is solidly anchored in the real world by being legal claims on specific real things in proven demand - both existing and to be produced in the short term. I call them Producer Credits. Demand creates credit creates money.

The solution to the problem is to expand the concept of money to include "promises of something specific from someone specific."
<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2014/solution.htm>

Therefore, by irreducible logic, *only* the Producers in an economy can provide this stable form of money. Banks however, could play a vital role as brokers performing "due diligence" in their own best interest, thus eliminating credit ratings agencies.
<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2014/solution8.htm>

The Producer Credit system is compatible with conventional money and actually depends on the continued existence of conventional money to be able to offer a stable global value unit.
<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2014/solution5.htm>

I have a page devoted exclusively to the business case for banks
<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2014/solution14.htm>

12 Annette Nordvall

Initially, I was really enjoying the fresh perspective of a tech investor and admiring her willingness to take the risks she does. However, at one point, Annette states that Bitcoin and other similar cryptocurrencies are just additional "commodities, like wheat or gas" to speculate on. I most emphatically disagree.

Bitcoin and similar "coin concept" cryptocurrencies are definitely speculative but they are not commodities. They are a new form of *fraud*, the effects of which are hidden theft from the general public, the same as undetected counterfeiting.

Something for Nothing

Human beings need wheat and gas and clean water and a whole lot of other real physical commodities to survive and prosper in the real world where our physical bodies live. Bitcoin and its imitators are nothing like physical commodities such as food, clothing, shelter and fuel. Every "gain in value" of a cryptocurrency is created by nothing more substantial than the clear desire to gain real world purchasing power *without* producing anything of value in the real world.

The real world has limits to what can be produced. Cryptocurrencies do *not*. By creating new purchasing power without producing anything of value, Bitcoin and similar "coin concept" cryptocurrencies are, by design, parasites - sucking real wealth from the people who create that real wealth, such as food, clothing, shelter and fuel.

If this were the printing of counterfeit \$100 bills with a printing press, we would understand that it is a form of theft by fraud. We would understand that dilution of the medium of exchange with counterfeit \$100 bills would, if left unchecked, result in the severe devaluation of the legal currency and thus the money holdings of everyone else.

But “mining” Bitcoins with computers, making Bitcoins a “speculative commodity” and a “technological breakthrough” blinds most of us to the fact that Bitcoin and other “coin concept” cryptocurrencies are fundamentally the same thing as counterfeit money, unearned claims on real wealth.

Bitcoin started at 1/3 of a cent. It went to \$20,000 based on greed and hype and the new hype is now \$250,000. All of this “value” is created by nothing more than the perceptions of those who want something for nothing. Imagine the new hype being as successful as the previous hype. Twenty-one million Bitcoins at \$250,000 each is \$5.25 TRILLION of real purchasing power given in exchange for *nothing*. That would be the largest theft in history. And that is just one of a potentially unlimited number of cryptocurrencies.

Accomplices in Fraud

Self-styled crypto-revolutionaries like to brag that governments can't shut down Bitcoin or any other “liberating” cryptocurrency because the distributed ledger technology is global, permanent and out of governmental reach. But, as I explained in my comments on Miguel Ordonez's presentation, it is *acceptance for value* that actually makes anything “money”. For instance, I could print a million dollars in counterfeit \$100 bills. They only become “money” for me if I can spend them on real things which requires someone else to accept them as “money”.

Knowingly accepting and spending counterfeit money makes the acceptor an accomplice in fraud. To shut down coin model cryptocurrencies, governments need to pass legislation declaring them to be frauds. This would make anyone accepting coin model cryptocurrencies for value an accomplice in fraud.

Lacking such decisive action, we all stand to have our pockets picked until eternity by the creation and acceptance for value of an unlimited number of worthless “coin concept” crypto-fraud currencies. For politicians, economists and bankers who should know better and have a professional duty to the public, failure to outlaw these scams constitutes incompetence, dereliction of duty, and, once properly informed, accessory to fraud.

Fortunately, so far, cryptocurrencies are only a drop in the bucket of global money actually being spent. Many have collapsed as the pump-and-dump scams they clearly were and most surviving cryptocurrency is being held like money under the mattress waiting for the next big run-up, so it has yet to actually become “money” (accepted for something of real value).

Blockchain is a technology that could be put to nobler use than reproducing the speculative frenzy of Tulip Mania - but *without any tulips*.

Circular Conservation Economy

Monetary innovators should be working on making our money system suitable for the real world emergency we find ourselves in; our behaviour is destroying the planet. What we really need is a *circular conservation economy* that enables drastically reduced resource extraction while ameliorating the necessary reduction in consumption by more equal sharing. This circular conservation economy must be mathematically stable in growth or shrinkage and it must be fair to all in order to be accepted.

The current system meets none of these criteria and requires *fundamental change*.
The alternative may well be extinction.

What if the only feasible solution can't possibly give investors ten times their investment within ten years as Annette says she requires? What if it couldn't return a profit at all? What if we were being called upon to give the solution away free worldwide as fast as we can, just as we would throw out life preservers to drowning people?

Well, first we would need to know what the solution is - which requires knowing what the problem is.

Annette asks a fundamental question: “What is currency”?
The broadest definition is: anything used as a medium of exchange.

Basically there are, and always have been, two opposite concepts for media of exchange:

1. the scarcity model in which the value of the medium of exchange is volatile because its value is created by its own scarcity relative to demand, the “coin concept”.

2. The abundance model in which the value of the medium of exchange is determined by prices - what its Issuer, the initial spender, will trade in real goods and/or services to get it back, the “voucher concept”.

I propose that the reader take a look at the links below for some fresh financial tech ideas well beyond the very finite thought boundaries evident at this conference.

In my animated movie, *Money as Debt II - Promises Unleashed* (2009), I predicted the invention of “digital coins” as I called them. Unlike Bitcoin and its imitators, my concept of digital coins was as intelligent tokens *redeemable for specific real things*. This is the abundance model.

<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2016/MAD2.htm>

Money as Debt III - Evolution Beyond Money (2011) is about the re-invention of the abundance model using modern tech. The accompanying business model is fleshed out in considerable detail. The whole movie takes 2 1/2 hours. My website elaborates on the same proposal in written form.

<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2016/MAD3.htm>

For a 7:36 minute introduction to the basic idea and how it was used in medieval times, click here:

<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2016/essence.htm>

The only economist to examine my proposal with an open mind had this to say: "...the obvious solution is not merely to foster the use of transferable product-specific vouchers as stores of value but to make them company-specific and include expiry dates on them. Businesses that issue them could then be confident about the level of sales they can achieve before the end of the expiry period. This is where we go, roughly speaking, if we follow the ingenious Digital Coin proposal of Paul Grignon, a Canadian film maker whose excellent animated documentary *Money as Debt* deserves to be screened to all students of economics."

"...I find Grignon's Digital Coin proposal especially well thought out. The time for this self-issued credit system to be implemented seems ripe both because of the failure of the existing bank-credit system and because we now have the technology to make it work."

<http://paulgrignon.netfirms.com/MoneyasDebt/MAD2014/solution3.htm>