CHAPTER 20

How Digital Currencies Will Cascade up to a Global Stable Currency

The Fundamental Framework for the Money of the Future

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Contents

20.1 INTRODUCTION

The amazing and earthshaking potential of digital currency is so far clouded by the follies of its illustrious flagship: bitcoin. Favored by criminals, terrorists, and fraudsters, bitcoin invokes condemnation and warnings issued by "the money royalty." Innocent youngsters treat bitcoin as the means to take power away from bankers and other "exploiters"—reminiscent of the youthful reaction to The Communist Manifesto, in 1848. And much as capitalists all over the world saw Karl Marx as a threat, so they see Satoshi Nakamoto, the mysterious author of the bitcoin protocol, as bad news.

Today's passenger jets look totally different from the contraption that the Wright Brothers used in 1903. So will digital money 2020 bear only a faint resemblance to bitcoin. The Wright brothers pioneering act made a statement: air travel is here. And bitcoin makes a statement: *digital money arrived*.

Before air travel, you had to negotiate wriggly roads, steep hills, and stormy water in order to go from point A to point B. The airplane flew over these obstacles and made

transportation frictionless to a great degree. That is exactly what digital money does: it makes payment frictionless and storing money quick and easy. When Alice prevails on Bob to agree to pay her $X, the execution of this concurrence should be smooth and painless and versatile too: payment should be carried out efficiently whether Alice and Bob are merchants, bankers, private citizens, or government agencies. Transactions should be executed lightning fast whether Alice and Bob meet face to face or reside a city, even an ocean apart, crossing several international borders. Nonrepudiation fixtures should accompany payments, so that both Alice and Bob can prove to themselves, to their accountants, to their shareholders, and to their governments that this transaction took place. In short, once a decision to effect a payment has been made, the implementation thereto should be quick, automatic, and painless.

Today, payment is an elaborate dialogue, payer and payee need to expose their identity and many private attributes, and banks make it cumbersome to open an account to move money around and to understand the barrage of new rules coming down the pike. International transfer is Kafkaesque, and currency exchange is a maze.

Digital currency, once omnipresent and mature, will do away with most of those inhibitors. Digital cash is paid by confirming its validity, not by forcing the payer to expose himself or herself. Digital money—a bit sequence—is stored on a pinhead, secured by unbreakable encryption, and paid as easy as a text message, an email attachment, or a direct file transfer.

Historically, whenever payment became easier and smoother, commerce flourished and civilization jolted up. It happened when barter was replaced by primitive money, when precious metal became standard money, and then again when scales were replaced by preminted coins, and of course, we have seen the medieval period end and the Renaissance bud up when the first promissory notes became popular and introduced the notion of paper money. Expect no less now when digital money is media-free, weightless, volumeless, and frictionless. We probably do not have the imagination to foresee what will happen, much as the house of Medici in Florence could not foresee today's paper money when they started issuing their paper claim checks for deposited gold.

But a few things loom clear: (1) volatility will need to dry up, (2) payment platform will become global, and (3) currencies cascade up.

Volatility: the underlying idea of money is that its value is stable and predictable. When a farmer sold eggs in the spring in order to buy a plough shed in the summer and managed to do so by exchanging his eggs against some form of money, his or her expectation was that that money will keep its value until the summer when he would wish to use it to buy the plough shed. If people would have expected money (any form of money) to appreciate, they would stop trading with it, waiting for it to be worth more. If people suspected the other way that money will inflate, then they would get rid of it as fast as they could, and nobody will be eager to accept it. Money—essentially—must be a stable store of value. So, whether bitcoin will be sufficiently modified to lose its unacceptable volatility

or it would be replaced by something like BitMint or by any other nonspeculative currency, volatility should be dried out before digital currency is a currency.

In antiquity, gold and silver transcended political boundaries and served as the currency of choice for international transactions. In the more recent history, states guard their power to mint their own currency, and as a result, international trade requires a resolution of the rate of exchange. Researchers like Cohen (2003) highlight the competing efforts of states to elevate their currency as a reference option. Some, like Greco (2009), highlight the claim that money became the instrument of political power, which hampers its utility. Lewis (2007), on his part, argued that in order to achieve monetary stability across the trading globe, it is necessary to honor the historical role of gold and pull back from the free money-printing option claimed by modern states. Lietaer (2002) went further in pointing out that our global money system is sick, strained, and in a position to destroy global economic well-being. Perhaps, the most credible warning with regard to world finance comes from Roubini (2010) who was the only serious voice that unsuccessfully warned about the 2008 debacle. He claimed that while bailing up the banks saved the world from a financial collapse, it failed to eradicate the root causes, creating a ticking bomb toward the next financial shake-up. His account points out to the power of inertia. It leads one to regard a profound technological breakthrough, like digital money, as a much needed game changer. Wray (2012) represented the voices that are apprehensive of the efforts to fuse currencies across political borders, claiming that each nation should mint its own currency. Surrendering this power will unleash destabilization. Chittenden (2010) was an excellent source for a broad scope of opinions over the issue of the money of the future. Vince Cable asserts in his introduction that one should not forecast the future, but rather think of many possible scenarios—that is the spirit that should guide the reader of this chapter.

The Internet turned us all into villagers who meet in the cyber town square and exchange goods and services. The need to pay across international borders has been growing for years and keeps growing with accelerated momentum. Digital money flows across the room or across the globe with equal ease, so digital money will have to rise into international acceptability to allow everyone to pay anyone.

And the last premise of the big change is cascading. Imagine two digital currencies, A and B. It is so very easy to use these currencies as building blocks for a third currency, C, defined as, say, 50% A and 50% B. You buy a C coin by paying half its value with A bits and half its value with B bits. The bits flow lightning fast and the exchange is equally fast.

In another corner of the world, two different digital currencies, D and E, have been used in commerce. Upon them, one could establish another currency, F, defined as follows: an F coin is composed of half a D coin and half an E coin.

But that is only the beginning. Anyone could create another currency, G, and define it as composed of half C and half F (or a third C and a two-third F, as the choice may be).

Since C is composed of currencies A and B and F is composed of currencies D and E, it figures then that G is composed of A, B, D, and E.

Digital currency G expresses a diversification of wealth that ranges through A, B, D, and E—giving it stability and trust that are higher than any placed in either A, B, C, D, E, or F by themselves. In other words, by using the ease in which one cascades up digital currencies, we can readily continue this process and cascade G with a similarly composite currency, H, and yield a super currency, I, defined over G and H.

By keeping the cascading protocol iteratively, one approaches a super currency *that is anchored upon the entire wealth of the trading society*, and hence, this currency is inherently stable!

And once we have this super currency to trade with, we have exactly what is needed for the credit market to flower. Money that comes with poor expectation of stability is money that chokes credit because lenders do not wish to lend money that would be worthless when paid back and borrowers do not wish to commit to pay a loan that would require a much higher payback when payback is due. The emerging super currency therefore will be an excellent basis for global credit and global prosperity.

And all that because digital money is so naturally cascading up. That is the message. Details ahead.

20.2 COMMODITY-BACKED DIGITAL MINT

A digital mint is an operation that issues digital strings that represent both value and identity. So digital string A of value X is distinct from digital string B, which may also be of value X.

Bitcoin has captured the fancy of traders on account of its daring proposition for value. Given that President Nixon in 1971 has decoupled the US dollar from its base—gold, without a collapse of the currency—this triggered far-reaching thoughts that the value of money is established by trader's consent, which in turn is anchored on nothing substantial. If the US dollar that is backed only by itself is so widely accepted and overall holds its value, then why not bitcoin—anchored to nothing, substantiated by no commodity, and guaranteed against no universal value—why should it not enjoy a stable value just on account of the desire of its traders for currency stability? This was a daring proposition that overreached its bounds. The US dollar is backed by the US federal government, which has the power to tax US citizens, and it has a central bank that can control the supply of the US dollar and thereby influence its value. Bitcoin, by contrast, has no taxing authority and no central bank. In fact, bitcoin is designed to insure that no coordinated minority will ever take over the currency and impose its will on the majority of traders. It sounds very appealing at first glance, but quite troubling at further thought. The rule of majority implies rigidity of control. Should the value rise or fall in an accelerating mode, there would be no power to arrest that movement. By design, bitcoin

has no central bank, no power center, and no leadership. So, it is only a matter of time before bitcoin will swing up or down or oscillate between high up and low down that traders will be forced to abandon it in favor of a more stable currency. This dire future for this pioneering currency is also shared by Robinson (2014) and Samid (2014). But unlike most detractors, these two authors point out that the trading protocol and other bitcoin ideas may fit into the evolving digital money solution—a case in point is offered by Samid (2014).

Calming down from the fanciful idea of "*money that is hooked on nothing will hook us all*," we revisit the notion of money backed by a commodity.

The operation is simple: a digital mint accepts a measure of the backed commodity and issues a digital claim check for the same amount, allowing for the holder of the claim check to forward it back to claim the measure of the backup commodity. A digital mint will have to define strict rules and procedures for handling the challenge of double-spending, of theft, coercion, or splitting of value, etc. And for our account here, we will assume that any digital mint we talk about did indeed develop a satisfactory solution for these challenges.

The backing commodity against which the digital claim check is issued may also be submitted through another coin, at its value equivalent at the time of the exchange.

While the value of the claimed commodity may rise or fall, the relationship between the digital claim check and the measure of the backing commodity is fixed and nonspeculative.

20.3 DERIVED COMMODITIES

Taking a broad definition of the term "commodity," one would regard fiat currencies as a bona fide commodity. Fiat currencies serve as a basis for an array of financial instruments. The full set of business shares, stocks, bonds, tradable promissory notes of all kind, mutual funds, and more recently loyalty money issued by stores for purchases there or even for restricted purchases are all derived commodities. We see derived commodities in the form of tradable air miles, health-care dollars, community dollars, etc. The 2008 severe economic recession gave a bad rap to elaborate and sophisticated packages of a large assortment of debt instruments designed to achieve enhanced securitization. Any such device can be identified as a commodity to be used as a backup for a nonspeculative digital mint.

One might note that the difference between the collateralized debt obligation (CDO), collateralized loan obligation (CLO), and digital minted money backed by them is that money is much easier to handle, freer (less regulated), and highly frictionless. Also, money is trading with a much finer resolution than these complex financial packages.

20.4 CASCADING

The essential process in this account is the process of cascading digital mints. We shall first define the process to be called composite backing or "ground cascading."

20.4.1 Composite backing (ground cascading)

Let C_1 and C_2 be two commodities within a given society of traders. One could build a digital mint M_1 to issue digital claim checks against C_1 and build digital mint M_2 to issue claim checks against measures of commodity C_2. However, one could build a digital mint $M_{1,2}$ that would issue digital coins, of type $d_{1,2}$, (digital strings) against a measure c_1 of commodity C_1 and a measure c_2 of commodity C_2. Upon redemption of d_{12}, the redeemer will collect from the mint c_1 quantity of C_1 and c_2 quantity of C_2.

Since commodity C_1 and commodity C_2 are both traded in the same relevant trading society, they do have an exchange ratio:

$$C_2 = E_{2,1} \times C_1$$

where $E_{2,1}$ represents how many units of C_2 are traded against a single unit of C_1. Naturally, the value of $E_{2,1}$ depends on the choice of units for C_1 and C_2. Respectively, we may define $E_{1,2}$ as the reverse value so that

$$E_{21} \times E_{12} = 1$$

We can therefore say that mint M_{12} is backed by commodities C_1 and C_2 at a ratio, r_2:

$$r_2 = E_{1,2} \times c_2/c_1$$

The cross-commodity exchange values $E_{2,1}$ reflect the relative desirability between these two commodities at a given moment of time, as reflected by a majority of actual trades between commodities C_1 and C_2 (directly or indirectly), and they reflect the desirability force in an average way across the trading society.

Assume that a time measure t passed from time point regarded as "0" when the mint issued its digital coin to the trader and the time point t when a redeemer of that digital coin came to redeem it. Then, we may register $E_{2,1}(0)$ the exchange value at the time of purchase of the digital coin and $E_{2,1}(t) \neq E_{2,1}(0)$ at the time the coin was redeemed.

According to definition of the digital coin (digital string) d_{12}, when it is being redeemed, it will claim the same quantities of the backup commodities: c_1 and c_2. Since $E_{2,1}(t) \neq E_{2,1}(0)$ if the redeemer changes his or her c_2 measure to equivalent measure of commodity C_1, or vice versa, he or she will net a different measure of c_1 (or c_2 as the case may be) than the measure he or she would have netted if exchanged at time 0.

This dual backing of a digital currency may be extended to multiple backing: let C_1, C_2,. . .,C_n be n commodities traded in the relevant society. One could establish a mint $M_{1,2,\ldots,n}$ that would issue a digital coin $d_{1,2,\ldots,n}$ purchased and redeemable against quantities c_1, c_2, . . ., c_n of the respective commodities.

Since stability is the primary attribute of money, the popularity of a currency reflects its stability. Traders shy away from unstable money. Therefore, a cascaded currency based

on the more popular currencies has a clear stability edge because not only does it reflect the better stability of its constituent currencies but also it offers enhanced stability owing to its partial or complete immunization against fluctuations among these constituent currencies. This argument can be developed with mathematical rigor, and so, it can be shown that $d_{1,2,\ldots,n}$ is a digital coin that in general is more stable than some random d_i ($i=1,2,\ldots,n$) from the mix. This added stability is the motivation for this ground cascading process.

This procedure ("composite backing" or alternatively "ground cascading") may be applied not only to primary commodities but also to derived commodities, for example, fiat currencies.

Any number of commodities among the n, as defined above, may, in fact, be fiat currencies of some particular country or any other currency that trades well in the relevant society.

20.4.2 Digital cascading

By regarding digital currencies (defined above) as bona fide commodities and applying the above procedure to such currencies, one extends this ground cascading into digital cascading.

Let one identify n resources of tradable value within a given trading society. Let there be m digital mints defined over these n resources as backup commodities. For $i=1,2,\ldots,n$, let mint M_j be issuing a d_j coin against measures $c_{1j}, c_{2j}, \ldots, c_{ij}, \ldots, c_{nj}$ of the n tradable commodities $C_1, C_2, \ldots, C_n$. Naturally, any (but not all) measures c_{ij} for any $i=1,2,\ldots,n$ and $j=1,2,\ldots,m$ may be zero.

One of the n resources will be arbitrarily chosen to be used as benchmark and regarded as C_1, against which the $(n-1)$ exchange values will be defined $E_{2,1}, E_{3,1},\ldots, E_{n,1}$—these are all functions of time per the relevant trading society.

Any number of these resources may be a derived commodity. We have regarded fiat currency as a derived commodity, but similarly, we may regard any of the m digital coins defined over the same trading society as derived currencies. The validity of a digital coin d_j issued by M_j is based on the trust associated with M_j for it to be able to redeem the specified quantities $c_{1j}, c_{2j},\ldots, c_{nj}$ for any redeemed coin d_j.

We may now consider a second set of m' digital mints $M'_1, M'_2, \ldots, M'_{m'}$, defined over the n primary resources $c_1, c_2, \ldots, c_n$, and in addition over the m digital coins $d_1, d_2,\ldots, d_m$. For $j'=1, 2, \ldots, m'$, mint $M'_{j'}$ will be defined over the quantities $c_{1j'}, c_{2j'}, \ldots, c_{nj'}, d_{1j'}, d_{2j'}, \ldots, d_{mj'}$. The new m' mints are defined over a larger set of commodities $(n+m)$, compared to the first round of m defined over the n primary resources.

The first set $M_1, M_2, \ldots, M_m$ mints will be regarded as the zero set of digital mint or the ground set. The second set of digital mints $M'_1, M'_2, \ldots, M'_{m'}$ will be regarded as the first "aboveground" set or the "first cascading set."

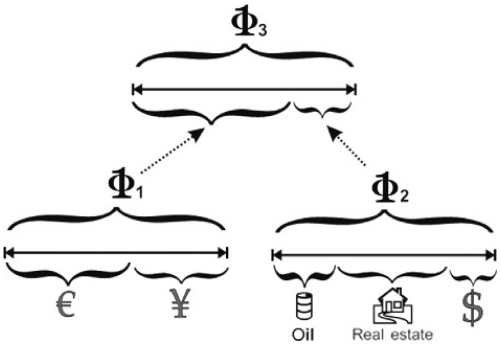


Figure 20.1 Graphic depiction of currency cascading.

This process may be repeated, and a second cascading set composed of m'' digital mints may be defined: M''_1, M''_2, …, $M''_{m''}$ over the combined $(n+m+m')$ backup commodities.

Cascading may be repeated as many times as desired, resulting in k-count cascading set, composed of $m^{(k)}$ mints $M^{(k)}_1$, $M^{(k)}_2$, …, $M^{(k)}_{m^{(k)}}$, defined as below over the available commodities counted as $n + m\prime + m'' + \cdots + m^{(k-1)}$.

The values for m, m', m'', and $m^{(k)}$ may be very large. They are limited only by the resolution of the original commodities c_1, c_2, …, c_n, since one assumes that a digital coin can be issued at any desired resolution. The original resources that are used in the minting process c_1, c_2, …, c_n have a natural maximum practical resolution, which is much coarser than their theoretical resolution (see Figure 20.1).

20.4.3 Illustration

Four nonspeculative digital mints 1, 2, 3, and 4 are established. Mint 1 mints a digital currency with units (coins) defined as 500$ plus 500€ plus 20 ounces of silver, plus 1 ounce of gold. At time point $t=0$, the euro is worth 1.15$, an ounce of silver trades for 20$, and an ounce of gold fetches 1600$. Hence, the dollar value of a single digital coin minted by mint 1 is $500+500\times1.15+20\times20+1\times1600=3075$$. This implies that a trader could buy a mint 1 coin for 3075.00$ because the mint will parcel these dollars to buy and deposit the set amount of euros, gold, and silver, so that the mint can redeem its coin per its defined entity.

At some later times, $t=1$ and $t=2$, the relative values of the backup commodities change as follows:

Commodities cross pricing ($)

Time points	$	€	Silver	Gold
$t=0$	1	1.15	20	1600
$t=1$	1	1.35	22	1500
$t=2$	1	1.55	28	1300

Accordingly, the dollar values of the mint 1 coin are

Mint 1 Time	$/Coin	$/Appreciation (%)
$t=0$	3075	0
$t=1$	3115	1
$t=2$	3135	2

That means that a holder of mint 1 coin should redeem it at $t=1$ and opt to retain its value in dollars and will net 3115$ or mark a gain of 1%. That will also be the purchase price of the mint −1 coin at $t=1$. Similarly for $t=2$, the dollar gain is now 2%.

In parallel to mint 1, three more mints defined their own digital currencies as follows:

Mints	$	€	Silver	Gold
1	500	500	20	1
2	250	300	0	4
3	800	0	50	2
4	0	2500	125	10

Yielding the following dollar values over time,

Time	$/Coin	$/Appreciation (%)
Mint 2		
$t=0$	6995	0
$t=1$	6655	−5
$t=2$	5915	−15
Mint 3		
$t=0$	5000	0
$t=1$	4900	−2
$t=2$	4800	−4
Mint 4		
$t=0$	21,375	0
$t=1$	21,125	−1
$t=2$	20,375	−5

Traders who chose mint 1 enjoyed the most stable choice in the time space $t=0$ to $t=2$, while traders who picked mint 2 lost 15% of the dollar value of their investment.

A cascade can now be formed. Indeed, three more mints come to existence (mints 5, 6, and 7), and they refer to the four commodities ($, €, silver, and gold) as backups, but they also regard the four existing mints (mints 1, 2, 3, and 4) as backup commodities. These three mints in turn issue their unique digital coin as defined below:

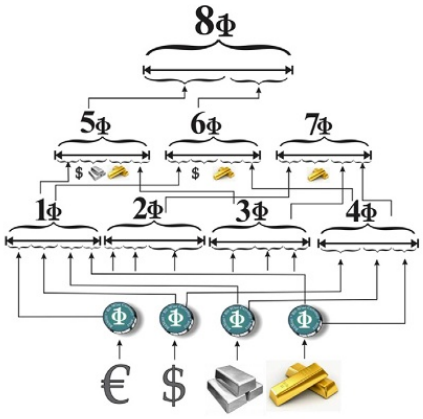
Mints	$	€	Silver	Gold	Mint 1	Mint 2	Mint 3	Mint 4
5	5000	0	8	2	4	0	1	0
6	3000	0	0	15	4	0	0	4
7	0	0	0	3	0	1	2	2

So, for example, mint 7 is defined over gold and mints 2, 3, and 4.

The corresponding values of these three cascading mints over the same time periods are readily computed as

Time	$/Coin	$/Appreciation (%)
Mint 5		
$t=0$	25,660	0
$t=1$	25,536	0
$t=2$	25,164	−2
Mint 6		
$t=0$	124,800	0
$t=1$	122,460	−2
$t=2$	116,540	−7
Mint 7		
$t=0$	64,545	0
$t=1$	63,205	−2
$t=2$	60,165	−7

This shows that mint 5 is the most stable among the three. Cascading may continue. For example, mint 8 may be defined as a digital coin backed by three coins issued by mint 5 and one digital coin minted by mint 6. Mint 8, in dollar value over time, will then be



Three layers cascading illustration
12 Mints InterMint
4 Base Mints (Dollar, Euro, Silver, Gold)
Eight cascading mints (4 @level1, 3 @level2, 1 @level3)

Time	$/Coin	$/Appreciation (%)
Mint 8		
$t=0$	201,780	0
$t=1$	199,068	−1
$t=2$	192,032	−5

20.4.4 Cascading stability

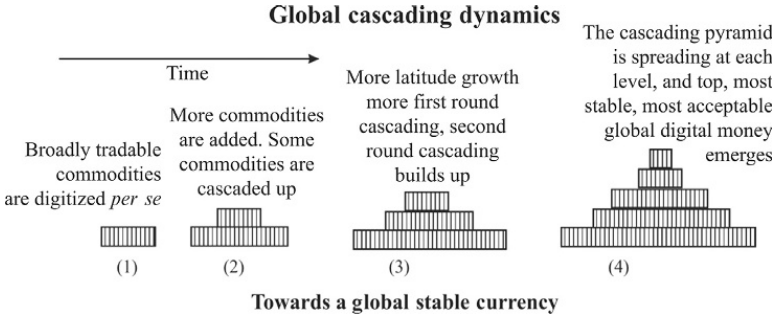
Suppose that somebody is smart enough to account for every piece of asset, value, and wealth owned by every single human being on the face of the Earth. Let's call this sum that represents the total wealth of humanity H. What unit will H be measured by? US dollar? Really, what if the US central bank prints oodles of money and the US dollar inflates? H then will rise. For good reason? Hardly. Nothing will change in the real world: the same amount of food, clothing, housing, cars, boats, toasters, and TVs. Say then that the US dollar is not a very good metric for H. What then? Gold? What will happen if a meteorite composed of a million tons of gold will land on planet Earth. Gold will instantly inflate—it will again look like H rose in value, but surely not. It will be the same for the case of an earthquake under Ft Knox, where tons of gold will be lost and gold will appreciate overnight, pulling H down—accounting-wise, not in any real sense. We may conclude then that H, the wealth of humanity, cannot be reliably measured. But why do we need to attach, say, a dollar figure to H? Is there a buyer for it? Are we going to sell H to some extraterrestrial and demand so much gold?

While H is not really measurable, it itself can serve as a unit of measurement. We may say that the upper 10% of rich countries own 90% of H, while the other 90% own 10% of H. If over time, your fraction of H increases, you truly will get richer. While if your bank account got fatter, you might in fact be poorer because of inflation.

Since we have no scale to measure H, we also have no indication whether H itself changed over time. From our point of view, H—the total wealth of humanity—is a reference point, stable, reliable, and durable. It is the natural anchor to hook our accounting to. We care not whether H rises or falls in some theoretical sense of how much, say, a Martian will pay for H; we do care if we individually, our family, our company, or our country has a bigger or a smaller piece of H.

It does not take much thinking to realize that if we figure out a currency that measures fractions of H, then we will have a fundamentally stable currency. What is the source of instability for currency C_1? Its value with regard to some other currency C_2 is changing. If C_1 accounts for apples and C_2 for oranges and people over time like apples more and oranges less, then C_1:C_2 fluctuates. But if $C_1=$H and people like oranges less, will we say that H is appreciating? No! H is H; C_2 depreciates. H then is inflation- and deflation-immunized.

Having concluded that H is our desired stable currency, how now do we go about it? The above cascading process is the answer. And that is the profound attraction of cascaded digital currencies; they evolve over time to define higher-up and higher-up currencies, and each successive currency gets closer to H and becomes more stable and less insecure. The process is asymptotic. By cascading up from a wide as possible range of commodities, we gradually and surely approach the ideal of a theoretically and practically stable super currency.



20.5 OUTLOOK

Here is an outlook scenario for evaluation: the global bitcoin flare-up has positioned digital currencies on the discussion tables of major financial institutions. The realization that crypto money plucked from the air is bound to fade away as a side game currency, will focus attention on nonspeculative digital money like BitMint. This focus will undermine the fear of the new, crack the power of inertia, and bring to bear a pioneering step by a financial institution that will digitally mint the prevailing fiat currencies. Such a financial institution is most likely to be US-centric, and the digital currency it would mint will be digitized US dollars, using the BitMint protocol. Following a period in which the mere trade with BitMint digitized dollars becomes a norm, this institution or a competing financial institution will start cascading and mint a composite digital coin composed of a proportion of US dollar and euro. This cocktail currency will become the one quoted and specified in bilateral US-European contracts. From there, the idea of mixed fiat currencies will spread to the Yuan, the Yen, etc. At the next stage, entrepreneurs around the world will come up with well-thought-out combinations of minerals like gold, silver, and oil, food supplies, fertile land, real estate complexes, and increasingly mint currencies contending to reflect the wealth of the Earth. Later on, the assortment of competing currencies will be sorted out to a few prevailing ones, and enterprising agents will combine those winners into higher cascaded money options, which again would compete, and over time, perhaps two decades, the world will see a contender "super money"—a currency that is backed by a vast majority of "earthlings" offering stability, tradability, and a robust framework to secure sound banking, effective credit, and accelerated prosperity.

20.5.1 Financial Panacea

Imagine a world where money is stable and universal. You can put your digital money into your digital device, back it up, encrypt it, secure it to your heart's delight, and then be assured that its buying power will not erode. What will it do for our quality of life? But mostly, what will it do for credit?

A word about credit: Wealth distribution within humanity is not consistent with talent distribution and ability distribution. Some very talented and able people simply do not have the money to exercise their gifts. On the other hand, some very wealthy people are too old, too sick, to depressed, or too something else and cannot put their money to good use. The credit market is the ingenious mechanism to allow the latter to lend to the former and benefit in part from the eventual success of the borrower. Progress and prosperity depend therefore on the availability of credit. We witness today and for a long time a big battle raging between two opposite economic schools: One says let the government tax the wealthy and then give credit, loans, grants, and gifts to the poor, especially to the talented poor (or to the voting poor, rather). Other say let the rich find ways to lend money, extend grants, and offer gifts to the nonrich, so that wealth distribution will be more productive. Either way or with regard to any way in between, society will advance via the mechanism of credit extension. But for credit to flower, it has to be extended in super stable currency since money that rises in value hinders borrowers and money that loses value discourages lenders. Say then that the increased stability of the upper currencies in the cascading ladder will be increasingly more fitting to serve for credit extension. And as this top currency approaches H, it ignites further the credit market, and the blessing of global prosperity will be here sooner. There will be more on that vision in Samid (2013).

Now all that we have to do is to conquer our fear of the new media-independent form of money, choose a robust secure nonspeculative digital currency protocol (BitMint is one serious candidate), and start cascading toward our bright joint future.

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