

# ***Beyond Blockchain***

## The Death of the Dollar and the Rise of Digital Currency

By Erik Townsend

### **FREE UPDATED CHAPTER 26:**

In February 2019, a new Chapter 26 was added to the book, offering the author's perspective on the profound opportunities that exist for Silicon Valley and Sand Hill Road in the coming Digital Currency Revolution.

This .PDF version of the new chapter is provided free of charge for the benefit of those who bought the paperback edition of the book.

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## Chapter 26: The *real* opportunity Digital Currency offers Silicon Valley and Sand Hill Road

I began this book by describing the reasons state actors such as Russia and China have a strong vested interest in dethroning the U.S. Dollar from its current role as the world's *reserve currency*. I started there because I think it's very important to understand the reasons that a growing number of nations around the world (including many usually seen as U.S. allies) increasingly regard the Dollar's hegemony over the global financial system as a *problem* that needs to be *solved*.

While I think it very important to understand these geopolitical dynamics, I do not think that a Chinese or Russian state-led initiative is the most likely path toward realization of my ultimate prediction that a global-scale digital currency system will eventually replace the USD as the global reserve currency. A far more likely course of events is that private-sector technologists and entrepreneurs will correctly recognize for myriad reasons (detailed earlier in this book) that the opportunity is ripe for the USD to be replaced by a digital global reserve currency. They will respond by creating a global-scale digital currency system ***designed and engineered from the ground up for the purpose of appealing to Central Bankers and senior government policymakers as a replacement for conventional currency systems***. Unlike cryptocurrencies, which were designed to frustrate and annoy governments, the digital currency systems which will ultimately dominate the global financial system will be those that were designed to *appeal* to governments and their central banks by offering benefits *to government* above and beyond what conventional currency systems can offer.

To be clear, I am absolutely *not* talking about a cryptocurrency or even something like *XRP Ledger (a/k/a Ripple)*, a digital currency system designed to appeal to commercial banks for creating secure electronic payment systems. What I'm talking about is an initiative where some serious technology interests (probably in the USA) with *really serious*

venture capital backing assemble a “dream-team” of the brightest minds in the field of digital currency *for the purpose of designing a global-scale digital currency system specifically to appeal to the central bankers of the world as a superior alternative to conventional currency for denomination of central bank reserve assets.*

The strongest selling point will most likely be a *new architecture of trust* in which there is no single nation “in charge” of the global currency system, but rather the new global-scale digital currency system is designed to serve all the governments and people of the world equally, using technology to overcome the limitation of conventional currency systems that requires a single issuing government (or supranational bloc in the case of the Euro) to be in charge of that currency and therefore have undue power and authority over that currency beyond that of other nations which may be forced to settle their international commerce with it.

Already I can hear the cries from the crypto crowd, claiming that Bitcoin solves everything and that the real solution is for the *people* of the world to come together and recognize that central bankers don't serve the public interest well, so we should all demand that Bitcoin or some other cryptocurrency be adopted as the standard of global commerce. To me, that's ridiculously naïve thinking. Governments are in charge of the world, whether we like it or not. They're not going to let go of their control of the global monetary system and allow it to be taken over by cryptocurrencies invented by cypherpunk privacy activists whose advertised goal was to demonize government-issued money and propose an alternative intentionally designed to frustrate and annoy law enforcement!

To be sure, digital currency offers tremendous advantage over conventional currency and it's the way of the future. But frankly the people who think cryptocurrencies like Bitcoin are going to take over the financial system are delusional in my opinion. The ways of the world are not going to change just because some cypherpunk activists figured out a smarter way to design money. Instead, governments will re-purpose the best of the cypherpunks' inventions to suit their own purposes and to advance their own agendas.

The real winners in this story will be the private sector entrepreneurs and venture capitalists who correctly recognize that governments are in charge whether we like it or not, and that the real opportunity for the private sector is to engineer and build a digital currency system rich with features *designed specifically to appeal to central bankers*, such as monetary policy tools dramatically superior to those in use today. The winners will be the

entrepreneurs who correctly recognize that the big-pocket customers for digital currency technology are not libertarian privacy buffs, but rather, governments themselves who will re-apply these same inventions with opposite objectives. They will design and build a global-scale digital currency system that does everything I've described in the last few chapters. Most importantly, it will include a digital sovereign bond market. They will sell it to the governments of the world, and eventually it will replace the USD as the global digital reserve currency. The new digital sovereign bond market will completely revolutionizes emerging-economy sovereign debt issuance.

These advances will change the world in way bigger than the advent of the Internet, and the details of their technology design will directly affect the advancement of humanity. This has the potential to correct inequities that have existed for centuries in the conventional global monetary system, but there is also very significant risk of creating something that serves governments but not the governed.

Please consider the range of possibility for how this might all unfold. At one end of the spectrum, consider a scenario in which the brightest technical minds are brought together with the most visionary and forward-thinking people in banking and finance for the purpose of conceiving a new monetary system that delivers profound benefit to humanity when compared to the aging fractional-reserve conventional banking system. This could be one of the best chapters of human history! At the other end of the spectrum, imagine government officials obsessed with power and control contracting the private sector to dream up a new digital money system which enslaves the people of the world to the strictest government oversight and control of every single financial transaction they engage in, right down to buying a newspaper! That's a broad range of possibility, and I firmly believe that the private-sector innovators who set out to design and build digital currency systems for government adoption will play a huge role in determining the balance of priorities.

### **The size of the opportunity (and required investment) are staggering!**

This is not a matter of a few smart technology entrepreneurs seeding a Silicon Valley startup with a few million dollars to develop a conceptual prototype and then raising a few million more from the VC community to take the company to the point of its IPO, which is the usual way tech

companies are born. If that were possible, I'd already have launched that startup myself, and wouldn't be spending my time writing books!

We're talking about an undertaking that has the potential to be more profitable for the founders than all of the FAANG<sup>50</sup> companies combined. We're talking about designing and building the global digital currency system that will run the entire global economy for the next 50 to 100 years! This is the biggest, most important undertaking in the entire history of Silicon Valley. *And it's almost certain to be the most contentious as well.* We're talking about designing something that will persuade governments around the world to abandon all of the world's existing conventional currency systems in favor of something better. And to be sure, that has to mean *better for them*. This can only succeed if the design focus is on delivering something that is so far superior to the existing fractional-reserve banking system that it promises something *irresistible* to central bankers and senior government policymakers around the globe.

Such an effort would be seen by the bureaucrats as something the government "needs" to control. Creating a superior global currency system designed to displace the USD as global reserve currency and then selling it to foreign governments could literally be seen as an act of treason by the U.S. government. Without a doubt, the U.S. Government will want to be involved in assuring that whatever is developed is well aligned with U.S. National Security interests. That unto itself will probably be at odds with one of the most compelling arguments for creating such a currency system in the first place: creating a new architecture of trust in which the U.S. Government is no longer in charge of everyone else's global reserve currency. To the rest of the world that might seem a long-overdue and very welcome development. But the U.S. Government is likely to see any such initiative as a threat to national security!

To really pull this off will require a whole lot more than a team of really smart distributed ledger and digital currency experts sitting down and designing something several orders of magnitude more scalable than any current cryptocurrency. The entire technology initiative is just one relatively small part of this. An arguably larger challenge will be figuring out how to balance the very real opportunity to improve the global monetary system by eliminating undue and improper influence by any single country against the fact that the U.S. Government isn't going to like anything that threatens its current hegemony over the global monetary system. Talk about needing a big budget allocation for K Street lobbyists!

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<sup>50</sup> Facebook, Apple, Amazon, Netflix, Google

But the reward is almost beyond imagination. A new global-scale digital reserve currency system with integral digital sovereign bond market would surely represent the biggest advance in the field of finance in the last 500 years. Such a system could be designed to enable all manner of benefits for governments large and small.

This is big. *Really big*. To pull it off will require a massive amount of technology expertise and a massive amount of capital investment. Silicon Valley and Sand Hill Road<sup>51</sup> are the logical sources of this talent and financing. But the biggest opportunity here is to build something so vastly superior to the U.S. Dollar that the world no longer wants or needs U.S. Dollars. That means you need top-level government contacts and a really big lobbying budget to persuade decision makers in the U.S. Government that the U.S. will benefit from the advent of this new currency system. It also requires a balancing act of sorts, since some of the most compelling features to non-U.S. governments are likely to be the ability of such a system to eliminate the U.S. Government's hegemony over the global financial system. Needless to say the U.S. Government isn't likely to see elimination of that hegemony as a 'feature'.

### **This comes at a time when Technology's role in Society is under scrutiny**

I began this book by describing the geopolitical backdrop where Russia and China have a strong vested interest in bringing about the replacement of the U.S. Dollar as global reserve currency. But there's another major balance-of-power evolution we need to consider here. For good reason, Silicon Valley's influence over society is increasingly coming under scrutiny. Facebook's misadventures with their users' personal data are just one example. Tech companies used to be seen as best left alone (government oversight of their products' functionality was considered unnecessary in the past). But in the past few years, we've seen plenty of good reasons to question whether or not the Titans of Silicon Valley (tech giant CEOs) should be in roles that give them influence over society that has historically been reserved to elected government officials.

The public debate over Silicon Valley's influence over society has thus far been driven primarily by the influence of social media on societal behavior. We're now asking important questions like whether or not companies offering social media services should have a legal obligation to fully

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<sup>51</sup> Sand Hill Road in California's Silicon Valley where many of the biggest venture capital firms are headquartered

disclose all of their motives and publicly document all of the ways in which they use (and sell) personal information. If *that* caused such a ruckus, can you imagine what would happen if suddenly the likes of Mark Zuckerberg and his Silicon Valley cohorts were in charge of designing a new money system for the entire planet? Please stop and think about that for a moment. The consequences could be staggering.

Clearly, without question, the opportunity is ripe for conflict of interest. A Silicon Valley tech company that sets out to design the ultimate global-scale digital currency system to be sold to central bankers around the world could easily seize the opportunity to also design in features and capabilities that are disguised so as to make the true goals of the designers anything but obvious. *And we're talking about a digital money system that will be used to run the entire global economy and affect the wellbeing of every human being on the planet!* If you thought there was good reason to question what Facebook is secretly doing with your social media posts, just wait until Silicon Valley is in charge of designing the entire planet's money system!

These concerns should absolutely not be seen as reason not to involve the private sector in engineering something far superior to what we have today. My point is simply that we have to consider a very challenging balancing act. The private sector is *always* the best source of technology innovation. Even in the case of the most dangerous technology of all, nuclear weapons, we rely almost entirely on the private sector to engineer the best technology. But in the case of nuclear weapons, the work of the private sector is very closely monitored and controlled by government.

It would be a real shame to impose nuclear weapons-level government oversight and control over the development of a new global digital currency system. History clearly shows that technology advances fastest and best when Government stays the hell out of the way and allows private-sector entrepreneurs to do what they do best. As a citizen, I want the smartest digital currency guys working on figuring out how to re-engineer the global monetary system and I don't want the government getting in their way more than necessary. But as a citizen, I don't want Mark Zuckerberg in charge of deciding how money should work either! Finding the right balance is obviously a difficult and contentious task to say the very least.

### **What would a Private-Sector initiative look like?**

A private-sector initiative to design and build a global-scale digital currency system intended to replace the USD as global reserve currency would

have the same basic design goal as any other product: *appeal to the buyer*. But the picture is much more complex than almost any commercial product. The most important buyers are the central bankers of the world—the people who decide what reserve assets the governments of the world should hold. A profound irony is that a truly global-scale digital currency system could eventually obviate the need for *reserve assets* to exist in the first place! So is the goal to sell the central bankers on the idea that their reserves should be denominated in a new global digital currency rather than in U.S. Dollars, or is the goal to persuade the central bankers to adopt the new digital currency system as their national currency partly because doing so could eliminate the need to even have central bank reserve assets?

Would the system be designed to appeal to the growing list of governments around the world who think the U.S. Government has too much authority over the global monetary system, by offering an alternative that eliminates U.S. hegemony? Or is it more likely the case that the U.S. Government itself would squash such an offering before it got started? If the latter is the case, does it make sense to design a digital currency system for the purpose of appealing to the U.S. Government's desire to perpetuate the hegemony it now enjoys over the global monetary system? It certainly seems prudent to assume that someone will feel inclined to design something intended to address the latter objective and that it would become direct competition for anything designed for the former. Is there a way to find a middle ground and design the "fits everyone's needs" global digital currency system that both appeals to the U.S. Government and also appeals to the many governments around the world who desire less U.S. hegemony over the financial system?

Personally, I see quite a bit of appeal to the notion of a gold-backed digital currency system administered by a truly independent global central bank, where no government enjoys complete control over the system and all governments benefit from a technologically enabled new architecture of trust in which the system itself offers assurances to all governments that no one government can ever take control of the entire system ever again. But that's just me. Would the U.S. Government see appeal in such a solution? Rather unlikely. And even if that objection were somehow overcome, central bankers generally are not big fans of gold-backing. I personally side with the sound money crowd who think that pure-fiat money systems are a recipe for disaster and that we need to return to representative money. But that's not a popular viewpoint in central banking circles.

My real point in writing this section is that this is an incredibly challenging business proposition. We're talking about solving problems caused by bickering governments who can't agree on how the global monetary system should work because they're all vying for power in one way or another. For the private sector to engineer a superior solution is relatively straightforward. But to promote the adoption of such a system without causing at least some of the bickering governments in question to see the advent of the new system as cause to go to war is another matter. The stakes are unimaginably high, both in terms of benefit and risk.

### Think Tank or Operating Company?

It's probably too early now (I added this chapter in February 2019) for anyone to launch an operating company for the purpose of designing and building the global digital currency system of the future that I've described in these pages. After all, as I have acknowledged in earlier chapters, some of the needed technology doesn't quite exist yet, particularly when we consider the need to scale the system to support hundreds of thousands of transactions per second.

But the landscape is changing quickly. In just the few months since this book was first published, *Hashgraph*, one of the commercial permissioned distributed ledger products claims to have broken the "proof-of-work barrier" and designed a permissionless version of their product which is fully de-centralized, but does not suffer the performance shortcomings of a blockchain-based ledger system. Technology in this space is advancing, and it's advancing rapidly. The technology which is needed but does not yet exist can more easily be created than the governmental challenges I described earlier can be overcome.

It makes no sense for someone with aspirations of designing and building the future global-scale digital reserve currency and sovereign bond market to hire a bunch of engineers and start building a currency system based on current distributed ledger technology when that technology is advancing so rapidly. To do so risks beginning an effort by betting on the wrong horse. What makes much more sense at this stage is to launch a *think tank* with the goal of *planning and designing* the future global-scale digital reserve currency system I've described, and keeping close tabs on Hashgraph and all the other players in this space who are doing work on relevant enabling technologies.

But more to the point, what's really needed is *strategy development*. And I don't mean software technology strategy. I mean business strategy. Do

you design something to appeal to all the governments around the world who want to see an end to the U.S. Government's hegemony over the global monetary system, or do you assume that the U.S. Government is your customer and design something to be sold to the U.S. government for the express purpose of perpetuating that hegemony? How are you going to influence leaders in government around the world to adopt whatever you design and build? These questions are bigger and more important than the technological challenge of how to make decentralized distributed ledger technology scale up sufficiently to support a global digital reserve currency.

### In Closing

What I'm describing in this chapter will be the technology industry's greatest undertaking. It has the potential to dramatically improve the quality of life on Earth for all of the citizens of all of the countries on the planet. It also has the potential to provide governments with exactly the technology they need to achieve an Orwellian outcome in which we all become slaves to a new money system in which Governments control everything and human rights are tragically abused in the process. The stakes are high and the social ramifications are staggering to say the very least.

Any undertaking to do what I've described must carefully contemplate where we stand right now in history. Already society is beginning to look much more critically at the role of technology companies in creating things like social media, and the power they derive from doing so. Without a doubt, any private-sector initiative to design and build a completely revolutionary new global money system will be met with extreme skepticism, for good reason. Those who undertake such a venture will need to anticipate all these things and be prepared to juggle an awe-inspiring set of challenges from the various governments of the world who all have conflicting objectives along with challenges from those in society who question whether Silicon Valley itself is becoming the all-powerful "big brother" that George Orwell famously predicted would eventually oppress humanity.

Bottom line, the fact remains: If someone can figure out a way to navigate all these obstacles, the opportunity exists to completely re-engineer the ancient and largely outdated fractional-reserve banking system with something much, much better. Something that delivers profound benefits to society as a whole, and which goes far beyond what was possible in conventional money systems. The challenge lies in keeping conflicts of interest from getting out of hand, and in making sure that what is eventually

built makes the planet a better place for the people who reside on it, not just for the creators of the new system and their pals in Government.

I hope to be part of all of this myself, but I'm the first to see that this is far bigger than me. Yes, I've successfully started a technology company before, hired dozens of talented software engineers, and delivered solutions that helped make the world a better place. But frankly what I'm talking about in this book is an undertaking on a completely, totally different scale. Re-engineering how money itself works and making the system better will be the tech industry's greatest challenge. It will be a bigger challenge than sending a man to the moon. Not because of the technology challenge in scaling digital currency technology to support the global financial system—that will actually be the easy part. The real challenge is managing the risk of special interests taking the effort in the wrong direction. The real challenge here centers on whether we can keep special interests at bay and focus the effort on doing good for humanity. The technology needed to do so will be sorted out and made to work much more easily than the political and intergovernmental conflicts will be resolved.

We have the technology to work miracles; both good and bad. We need to figure out how to stay focused on the good miracles, keeping the design centered on what's good for the people who live on our planet, rather than succumbing to special interests, of which Governments themselves are but one category. It will be the tech industry's greatest moment to pull this off, and it will also involve great risk of misadventure.

If one thing is certain, it is that the Digital Currency Revolution of the next few decades will mark one of the most interesting times in the progress of humanity.