Across the Valley

"Life is what happens when you're busy making other plans."

- John Lennon

Something is happening today - something big and very different, maybe life-changing. Most don't see it, which is nothing new when it comes to step-shift innovations:

- In 1712, Thomas Newcomen invented the practical steam engine. An improvement made it portable in 1848, which few knew at the time would trigger an Industrial Revolution.
- Karl Benz invented the first gasoline-powered car in 1886. Twenty-two years later, in 1908, Henry Ford's second funding round allowed him to create the Model-T for the masses.
- Tim Berners-Lee invented the World Wide Web in 1989 as an information management system. Satoshi Nakamoto designed the way to complete it in 2009, through peer-to-peer value transfer.

Nakamoto's Bitcoin white paper was truly inspired (https://bitcoin.org/bitcoin.pdf), not because it offered a way to circumvent intermediary (government and bank system) control over the production and distribution of money. Its true genius lay in the way it proposed to do so, by using encryption, ubiquitous internet connectivity and natural incentives to solve the centuries-old trust problem between unfamiliar counterparties. It gave us the means to record data for all time in a way everyone can see in real time.

Today we stand at the beginning of a truly transformational commercial overhaul - from centuries of having to transact business through trusted third parties to a peer-to-peer architecture on which millions or billions of individuals and enterprises in any corner of the world can trust each other without knowing each other. Blockchain technology memorializes and time-stamps encrypted data and stores it broadly on disaggregated servers, desktops, laptops, smart phones, etc. across the global community.

The ability to profit handsomely by funding blockchain's build-out is available today, but relatively few seem to see it or realize the magnitude of the opportunity. Why? Perhaps because it has no high profile advocates. Professional investment advisors are trusted intermediaries, a necessary and lucrative role, but many work on platforms also paid for providing access to financial assets. Why would such agents promote their declining influence?

Or, maybe most investors are unwilling to see the threat to naked emperors because they think it is too early – still venture investing at this point – and unlike most venture investing, publicly traded tokens have enormously volatile real-time price feeds? In institutionalized markets where volatility has come to represent more risk than reward, volatile cryptocurrencies are seen as mostly risky. Or maybe its just that blockchain is new. Remember thinking to yourself "I would never give my credit card online!"?

Vastly under-appreciated is the fundamental economic and commercial paradigm shift about to take place, from capitalism managed through chokepoints to capitalism for a socially-connected world. It has been invented but not yet adopted.

Recent meetings with institutionalized financiers and investors at the highest levels make clear that the closer to Big Credit they are, the less they see or are willing to acknowledge this innovation. Their logic is circular. Their questions are often pointless. Their arguments are specious. Their time is limited.

De-Institutionalization

Blockchain technology will not only disrupt finance and investing, it will flatten commerce across all sectors by completing the functionality of the *Internet of Things*. It takes bar-code tracking and logistics to another level – allowing all interested machines to communicate, AND anyone, anywhere to exchange value directly, algorithmically.

In five or ten years there will be a diminished role for intermediaries, such as correspondent banks, now needed to confirm that a counterparty has adequate funds to pay for goods about to be shipped. For that matter, there will no longer be the need for a retailor to trust that a manufacturer actually has the goods to ship. Processes and production at each step of supply chains will be documented, tracked, shared and adjusted in real time. Productivity will soar as inefficiencies and consumer prices fall.

In fact, consumption will change radically. You will sit down in an airport gate and charge your smart phone through an online micro-payment. Your counterparty may be an energy company, the local utility, or the guy sitting next to you willing to transfer 20% of his phone's charge in exchange for a mutually agreeable currency. The exchange will settle in real time and you won't have to introduce yourself to him or even know that it was him who sold you the power.

You will be able to do the same thing when you get on the plane, but perhaps – depending on your specific preset conditions – only with the woman in 3A, the guy in 26D, and the flight attendant spilling apple juice on the kid in 13B. If your terms of exchange are not as selective, there could be 79 people on board willing to sell you power in return for twenty different currencies. You may choose the one or ones you find most agreeable. You will not need to know anyone on board, or even when the transaction occurs, because you and everyone else would have already pre-set the terms of your phone-charge transfer procedures. Algorithms will do it all for you.

The fundamental breakthrough is that people everywhere will be able to make their own secondary markets. We will determine prices at which we would buy or sell goods, services, labor and assets and then execute directly in real time with counterparties we don't know.

Macro Impact

The impact of this disintermediation will be life changing. Economics will become purer, more closely reflective of supply/demand equilibria across sectors and industries. This implies that the role of *economic policy*, which today is conjured, discussed and debated ad nausea by academics and career worldimprovers, will be greatly diminished. The influence of governments will be marginalized. Blockchain technology is to political authority as democracies are to republics, or in some parts of the world as democracy is to autocracy.

The juxtaposition of peer-level governance five or ten years hence against today's top-down centralized policy-driven economics is stark. To those understanding the potential impact on sovereign fiat currencies, central bank monetary policy seems like *dead-authority walking*.

The modern-day flexible exchange rate global monetary system, in which all currency boards have incentive to deflate the purchasing power of goods and services away through inflation (giving them sustainable value only against each other), now have to contend with competitive stores of value. For the first time since 1971, if the Fed, ECB, BOJ, PBoC, etc. – or their fiscal authorities – become too profligate or untrustworthy with the currencies in which their constituents are supposed to store wealth, then those constituents have another option – peer-to-peer crypto. Monetary boards are suddenly *in comp*.

Trade tariffs imposed by nation-states that threaten trade wars also seem to be political and commercial anachronisms. In the past, sovereign economic aggression led to empire building and shooting wars. Tariffs may have been temporarily effective when nation-states were compelled to act as economic equalizers (or dominators) for their societies, but they no longer have any basis in economics as it is about to be practiced. Coal miners in West Virginia and Haerwusu will be equally impacted by the adoption of blockchain technology because there will be global (not economy-specific) price and wage scales.

Blockchain technology allows capitalism for a socially connected world. *It provides the means for a purer form of barter. Value left over from discrete peer-to-peer exchanges will be stored in money forms counterparties choose themselves. Currencies will become Darwinian, survivors determined based on their perceived ease of use and value-storage properties.* To deny this is to deny the world is round.

To be sure, today's trusted authorities sitting in the middle – deciding how wealth should be measured, managing the value of the fiat tokens they chose, and collecting rent denominated in them – are beginning to recognize blockchain's power. (It is not all negative either. Sovereign nation states see it as a way to improve armament supply-chain security and enhance tax revenue collection and crime tracking.)

Still, we should expect influential decision makers to not go quietly. They may be lobbied by established rentiers to erect hurdles and barriers-to-entry for systems or processes related to commerce, finance and trade. Such efforts will ultimately fail. They will not be able to circumvent peer-to-peer incentives that drive the supply of and the demand for goods, services, labor and assets. Inefficiencies that have driven their reason-for-being will be naturally arbitraged-out. They can't un-invent blockchain ledgers and distributed networks.

The gift Millennials, Gen Xers and Gen Zers are giving themselves is to bypass the calcified forest of rules, economic protocols and unsustainable debt and capital structure values that Baby Boomers have been planning to leave them. They don't need hierarchical public/private debt-driven plutocracies posing as wealth-creating economies. They discovered a better way, and they're about to *Stick it the Man*.

Investing in Blockchain

Blockchain technology is to commercial monopolies across industries what VOIP was to telephone monopolies, only far more extreme. It dissolves chokepoints and bypasses monopolists. Enterprises who see its power are already working to protect their franchises.

Restaurant chains, transportation companies, health care providers and other client-facing businesses with liability exposure see it as a way to reduce costs and exposure and to maintain viability. Legacy oligopolists in banking and retail industries are already establishing industry consortia to build permissioned (private) blockchains atop established sovereign currencies to combat what they know is a coming threat. Threatened is the right outlook. The value of today's corporate cap-structures will be challenged and ultimately restated.

- Blockchain technology will allow small and medium sized businesses to compete and take market share from commercial behemoths, like GOOG and FB, which today control 99% of online ad spending. If your smiling cat attracts ten-thousand viewers, then you will be rewarded directly by the blockchained protocol on which you post it. (You and the other billion users of the protocol may have collectively decided not to share your data with advertisers, as FB does.)

- AWS currently enjoys 35% of the cloud storage market. If you have extra gigabytes on your laptop, then you will store encrypted data there, and get paid for it with micro-payments in cryptocurrencies, along with thousands or millions of other nodes in a distributed file storage network. It will be more secure than any centralized server farm could possibly be.

- If you want to play roulette online – legally without a casino taking a rake and diminishing your odds of winning – then you will be able to convert your fiat tokens to cryptocurrency tokens, which will act as chips. You will place your crypto on double-zero, and when the marble lands on it the blockchain smart contract will credit you and debit others who bet against it. You may decide to convert your crypto back to fiat, or else leave it in "chips" for the next time you play. Your decision will be based on a store-of-value metric. The decision to speculate now on such a cryptocurrency as a potential investment hinges on whether you think the current total market cap of that gaming protocol will increase over time (assuming the gaming crypto has a finite supply, which would force its exchange rate vis-à-vis fiat higher).

- Even newer innovations will be disrupted. Sharing economy businesses like Uber and Airbnb – which currently take-out up to 30% for matching drivers with riders or hosts with travelers – will be dis-intermediated. You will soon be able to arrange rides or vacation stays directly over blockchain protocols. Will you trust it without centralized oversight? Maybe not at first, but that will work itself out naturally. The users of the protocol will establish and amend their rules of the road and interact directly.

Blockchain's applications are limited only by imagination and processing power. Incentives to prosper by providing solutions, efficiencies, bypasses and work-arounds are beginning to come fast and furious. The case for investing in blockchain technology today is quite strong. Ask yourself this:

> Do data miners selling personal information to the highest bidders; or large manufacturers, insurers, etc. enjoying wide margins borne from market inefficiencies; or dominant energy and commodity suppliers now greatly influencing terms of trade and distribution; or correspondent money center banks currently controlling how wealth is measured and global payments are made; or even new upstart businesses in the sharing economy promising peer-to-peer commerce, but at a steep cost – all with their trillions in collective market caps – have to necessarily be completely replaced for an entire blockchain industry of less than $500 billion to be a good investment?

The answer is "no". Real revenues and earnings in the former will fade as more business is done in the latter. Blockchain technology is highly disruptive, economically deflationary, and shifts wealth creation from financial rent seekers and monopolists back to producers. It also solves the irreconcilable economic leverage problem facing global economies and policymakers today. Perhaps most important to those reading this, it will shift wealth from those with investment portfolios comprised of stocks and bonds in legacy businesses to those with equity and tokens in disruptive businesses and projects.

The valley is a calcified forest of tired precedent and misguided expectations. The blockchain build-out will be accompanied by hollow threats from authorities losing their influence and characterized by asset volatility from tourist investors not knowing what they own or why. Look across it. You want that volatility.

Blockchain investing is all venture at this stage, regardless of whether the means to invest in it come in the form of protocol tokens or private equity in businesses ushering in the change.

We believe the greatest payoff will come in five to ten years as certain tokens scale to equilibrium and as existing businesses looking to protect their franchises acquire private equity in blockchain infrastructure businesses. The smart play is to invest in actively managed, regulator-compliant investment programs, thoughtfully constructed to benefit from this process. Zero exposure to blockchain is the risky bet.

Please contact me if you would like to arrange a call or meeting.

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