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12/8/23 – Marcel Kasumovich, Deputy CIO, Coinbase Asset Management

1. Money. "I don't know what they want from me. It's like the more money we come across, the more problems we see." The story is told brilliantly in song. It's an illusion. The industrialist creates wealth, and the financier money through friction. Gold was an anchor that forced the two to converge. Its success was its failure – hoarding gold in the 1930s led to an untenable monetary tightening. Executive Order 6102 made it illegal, and government paper followed.

2. As the gold shackles on paper money fell away, US dollar dominance emerged tethered only to credible policy. Now, imbalances cast doubt about that dominance. The US took cheap financing from foreigners to propel global growth. All was smooth – until this cycle. The US net international liability is now running at $18 trillion, a staggering sum compared to the $3 trillion of annual exports. It's untenable, the byproduct of fiscal policy gone bad.

3. The world will adjust. A casual glance at history teaches us the end of the US dollar empire is textbook, not an outlier. Drama is driven by our egos, not the facts. Take the Roman Empire. It was the anchor to global trade until deficits with India became untenable. Pilny the Elder, a Roman polymath, observed that "not a year passed in which India did not take fifty million sesterces [silver coins] away from Rome." Bad fiscal policies made it worse, like the US today.

4. The US dollar isn't going anywhere. Obviously. Nor is its demise destiny. Policy can respond. But that requires acknowledging the problem. And balance sheets, especially external ones, just don't rise to the attention of those hunting for election votes. Central banks are buying gold at an unprecedented pace – the hedge of choice. Bitcoin is showcasing its scarcity features. And the world adjusts slowly and steadily towards a new nominal anchor.

5. Can bitcoin be that anchor? Of course. But bitcoin has an image problem. This, too, is textbook. Every disruptive technology looked unattractive at the start. Now, it's bitcoin's turn with money – and climate is one of the biggest image issues. Satoshi addressed climate head-on very early. "Bitcoin generation should end up where it's cheapest. Maybe that will be in cold climates where there's electric heat, where it would be essentially free."

6. That's the bet – bitcoin is part of the climate solution, not the problem. The image problem is obvious. Bitcoin uses a lot of power to solve an uninteresting problem. That power emits carbon. COP is focused on carbon containment. Bitcoin has no compelling killer application (yet). So why bother? But we should start with the principles of regulatory policy – be agnostic to technology. Bitcoin made its way to the COP28 agenda, a reminder that images evolve.

7. Bitcoin's evolution is rooted in power markets and its commodity characteristics. What's the edge for those mining bitcoin? The cheapest feedstock. What is that feedstock? Stranded power. And that's green energy. Bitcoin mining is flexible to move to any energy source, at any time and any scale. It transforms the narrative of bitcoin from a hazard to a helper. Bitcoin is a figurative battery that transfers energy over time. (No, it won't run your toaster.)

8. Our carbon-neutral bitcoin shines a bright light on the issue. We evaluate the cross section of energy consumption on the bitcoin network with the geolocation data for power sources to estimate the total carbon emissions. Whether you are active or not, mining provides the security to your holdings and, thus, we neutralize that footprint for each bitcoin. The assumptions are conservative – bitcoin's migration to green power is far faster than our crude estimates.

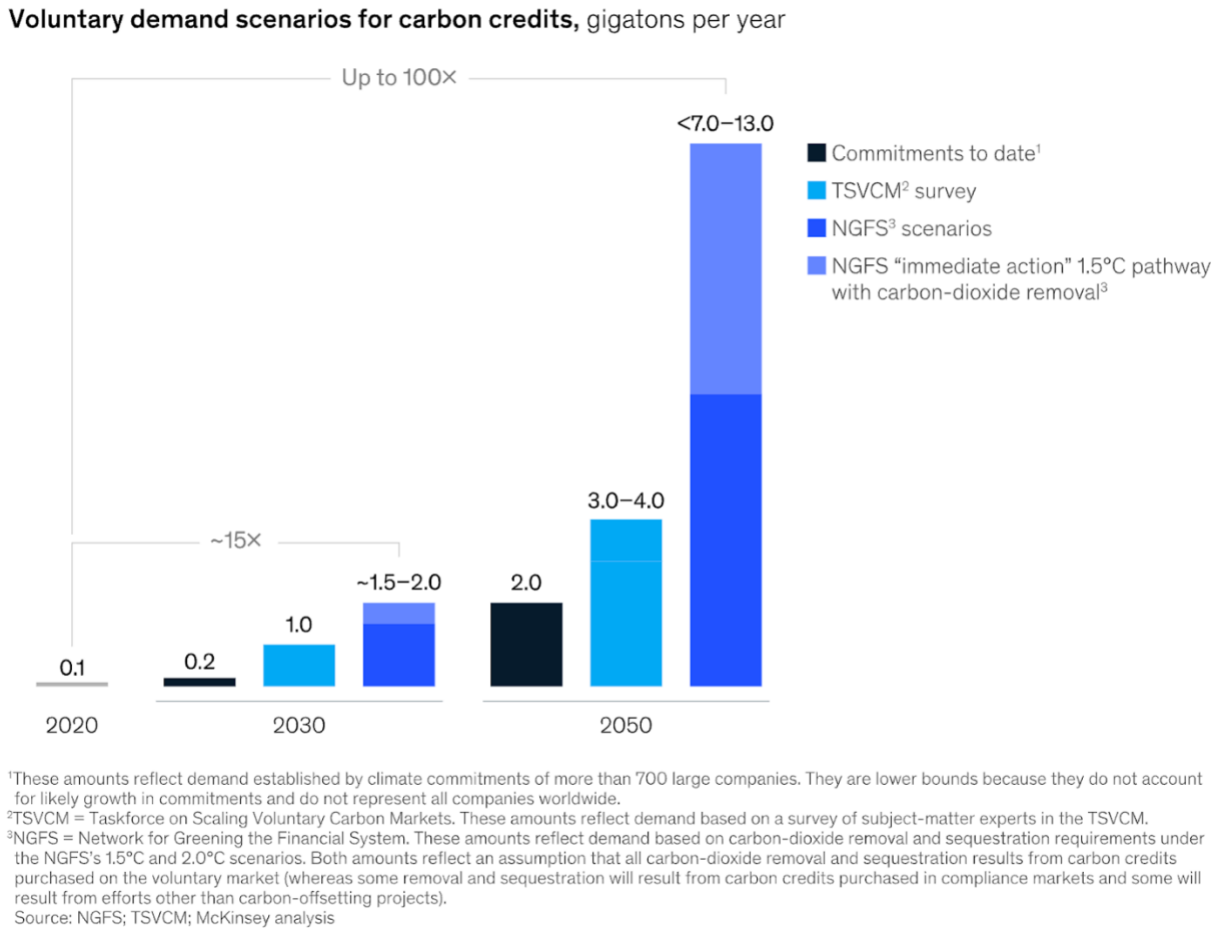
9. Transparency is the best disinfectant – and there's nowhere to hide on the public blockchain. This plays out one of two ways. Power consumption could elevate bitcoin's carbon footprint at a time when the cost of carbon is surging. It would be a material drag to bitcoin's carbon-neutral performance because of the negative externality. Or Satoshi could be right and bitcoin miners hunt for the cheapest power, turning the bitcoin into a natively green network.

10. Bitcoin is already marching towards green. Mining has gone from a basement laptop computer consuming power from coal-fired plants to institutional sophistication. Miners use of redundant green power enhances returns on that energy infrastructure. Investment improves. Unlike traditional data centers, bitcoin allows for "controllable loads." Mining operations can be turned off instantly to provide power back to the grid. It's not a vision – it's the standard in Texas.

11. Policy officials heard the message, inviting discussion. We were asked to share our experiences with the carbon market. The identical credit can trade as low as $2 and as high as $50 – growing pains. But the spirit of the carbon market is to price the externality and change behavior, driving power to clean sources. That is only as strong as the cheapest credit to deliver – and a low-cost option is a license to pollute. Regulating supply is the challenge.

12. Our big idea? A global carbon central bank. Policy is attentive to demand for offsets. Best estimates anticipate the voluntary carbon market rising ~15 times by 2030 and ~100 times by 2050 (Figure 1). Regulation of the supply side – that's the case for a carbon central bank. It's no different from how a monetary central bank regulates credit. Regional barriers fall away, and operating small projects is practical. Digital rails are ready to execute – a solution to a problem.

Figure 1: Carbon Offset Demand Strong, Carbon Central Bank to Regulate Supply?



[1]These amounts reflect demand established by climate commitments of more than 700 large companies. They are lower bounds because they do not account for likely growth in commitments and do not represent all companies worldwide.
[2]TSVCM = Taskforce on Scaling Voluntary Carbon Markets. These amounts reflect demand based on a survey of subject-matter experts in the TSVCM.
[3]NGFS = Network for Greening the Financial System. These amounts reflect demand based on carbon-dioxide removal and sequestration requirements under the NGFS's 1.5°C and 2.0°C scenarios. Both amounts reflect an assumption that all carbon-dioxide removal and sequestration results from carbon credits purchased on the voluntary market (whereas some removal and sequestration will result from carbon credits purchased in compliance markets and some will result from efforts other than carbon-offsetting projects).
Source: NGFS; TSVCM; McKinsey analysis

Source: mckinsey.com.

Disclaimer

One River Digital Asset Management has been acquired by Coinbase and is now Coinbase Asset Management. Additional details on the transaction may be found on the Coinbase blog. References to One River Asset Management and One River Digital Asset Management may be contained herein during the transition period but are subject to change.

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Bitcoin mining poses unique risks that could lead to loss of capital investment. Risk factors include the inability to grow hash rate as a function of limited computing power, the cost of acquiring new miners as affected by global supply chain issues, the value of bitcoin mined not exceeding associated mining costs, market volatility of the asset, and the reduced generation of revenue due to bitcoin "halving". Bitcoin mining may also be impacted by increasing compliance and legal costs as the industry is subject to emerging regulation.

There is no assurance that carbon capture credits and trading markets will continue to exist, or that they will prove to be an effective method of reducing greenhouse gas emissions. New technologies may arise that may diminish or eliminate the need for cap and trade markets. Ultimately, the cost of emissions credits is determined by the cost of actually reducing emissions levels. If the price of credits becomes too high, it will be more economical for companies to develop or invest in green technologies, thereby suppressing the demand for credits.

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