

Testimony of Perianne Boring, Founder and Chief Executive Officer, Chamber of Digital Commerce

Before the United States Senate

Committee on Agriculture, Nutrition, and Forestry

“Examining Digital Assets: Risks, Regulation, and Innovation”

February 9, 2022

Washington, D.C.

I: Introduction

Good morning, Chair Stabenow, Ranking Member Boozman and Members of the Committee. Thank you for inviting me to participate in this important discussion on digital assets.

My testimony on behalf of the Chamber of Digital Commerce (“the Chamber”) focuses on the following points:

- Blockchain and digital assets represent generational innovation and economic growth, particularly in the financial services industry. Despite the many myths associated with these technologies, a number of key facts remain: the inherent nature of both blockchain and digital assets enable transparency in the market, facilitating ease of transactions, and ultimately helping to spur more sustainable energy practices, accelerating the transition to renewable energy, and offering economic opportunity to underserved rural areas.
- Despite the growth and opportunities in the digital asset market, the lack of regulatory clarity has created many unintended consequences. The fragmented regulatory system is hampering innovation and impacting the U.S.’s global competitiveness. Many other countries understand the crucial role these technologies are going to play in the digital economy and have facilitated regulatory environments that foster growth and innovation within their borders.
- There are many opportunities for the U.S. – and this Committee – to foster growth and innovation. As I discuss in more detail below, the Chamber recommends the following policies:
 - Adopt the Chamber’s 2019 National Action Plan for Blockchain; and
 - Provide regulatory clarity for the industry, including identifying a lead regulator. Should that be the path, we believe the Commodity Futures Trading Commission (CFTC) is well-positioned to take on that role due to its principles-based regulation, its innovation mindset, and its ability to quickly adapt to the ever-evolving industry.

Today, I am appearing on behalf of the Chamber of Digital Commerce, which I founded and where I continue to serve as Chief Executive Officer. Established in 2014 as the world's first and largest blockchain trade association, the Chamber's mission is to promote the acceptance and use of digital assets and blockchain technology. We are supported by a diverse membership that represents the blockchain industry globally, including more than 200 of the world's leading startups, software companies, financial institutions, and investment firms, as well as other market participants, including digital asset mining firms. Membership is open to all companies committed to supporting and growing this thriving marketplace.

Through education, advocacy, and close collaboration with policymakers and regulators, the Chamber works to develop public policies that provide certainty and clarity to the marketplace. Such sound policies will foster innovation, job creation, and investment for industries and businesses of all sizes, while encouraging adoption of these transformative technologies with applications far beyond finance or investing. Just as important, if not more so, these policies will also maintain U.S. leadership in the global digital asset and blockchain ecosystem.

Digital assets and blockchain technology hold a generational promise for entrepreneurs, investors and broader society. It is not an exaggeration to say that these opportunities are on the scale of innovations that followed the widespread deployment of electricity, the railroads, or the Internet.

Digital assets are helping to usher in a truly global and inclusive economy, while blockchain technologies are revolutionizing and disrupting entire industries. This revolution is not only in financial services and banking, but also can be seen in innovations in the agriculture industry focused on supply chain, government records, title and asset ownership, digitization and encryption of records, and digital identity.

With an appropriate policy and regulatory framework, digital assets and blockchain can positively affect the future of businesses and governments and broader society, as innovations did in the 19th and 20th centuries. But just as the Internet required regulations suited for an emerging technology versus the legacy infrastructure of the rotary phone, policies for digital assets and blockchain technology should be based on the use cases of the future versus the needs of early 20th century financial services. What this policy framework should look like is what I wish to discuss with you today.

Before I discuss our policy recommendations, it is important to provide a basic overview of both blockchain and digital assets.

II: Bitcoin and Blockchain

A. History

In 2009, Bitcoin was designed as a “peer-to-peer electronic cash system” and was the first-ever blockchain network.¹ Its creation was motivated by the so-called “double-spending problem,” which for decades perplexed the founding generation of the Internet. Bitcoin’s creator identified a problem: although the Internet generally allowed for the peer-to-peer transmission of *information*, such as media files and text, it did not facilitate the peer-to-peer transmission and transfer of a *unit of value*. The Internet for years enabled individuals to transmit copies of pictures to others without an intermediary, but was incapable of enabling an individual to transfer a payment in a similar way. In other words, sending you a dollar meant giving up my dollar (this *was* the “double spending problem”).²

Intermediate solutions which have emerged to bring finance to the World Wide Web suffer from the “double spending problem.” These solutions effectively take existing financial infrastructure and retrofit it to the Internet. There are certainly some important innovations – mobile phone apps allow us to deposit checks without visiting a bank branch; online portals allow us to make stock trades at a lower cost without calling brokers; etc. – but they do not transform the fundamental nature of finance. Financial transactions on the Internet *require* intermediaries; otherwise, there is no way to validate the ownership of units of value.

When Satoshi Nakamoto – the founder(s) of Bitcoin – solved the “double spending problem” by publishing the Bitcoin protocol, they gave birth to a new era that allowed for the Internet to truly extend into finance without intermediaries. Blockchain technology allows for the proliferation of distributed, immutable databases that can be relied upon as the source of truth and used by American businesses seeking to record property ownership and facilitate global commerce.

While decades of competitive pressures introduced by the Internet have fundamentally changed media moving forward, equivalently monumental shifts in other areas, particularly agriculture, finance, and supply chains, have not yet been realized because the full promise of the Internet required the invention of blockchain to be unleashed. We are only beginning to utilize the full potential of Satoshi’s elegant creation.

B. Example Use Cases

The future looks bright. “Blockchain is a cryptographically secure platform ideal for permanently storing assets and ownership information, and will serve as the foundation or ‘rails’ for other technologies, like the Internet of Things (“IoT”) and artificial intelligence.”³ Satoshi’s solution to the “double spending problem” has implications not only for the financial sector, but also for the

¹ “Bitcoin: A Peer-to-Peer Electronic Cash System.” Satoshi Nakamoto. <https://bitcoin.org/bitcoin.pdf>.

² “Bitcoin: Inside the encrypted, peer to peer digital currency.” Thomas Lowenthal. <https://arstechnica.com/tech-policy/2011/06/bitcoin-inside-the-encrypted-peer-to-peer-currency/>

³ “National Action Plan for Blockchain.” Chamber of Digital Commerce, February 2019. <https://digitalchamber.s3.amazonaws.com/National-Action-Plan-for-Blockchain1.pdf>

near-instantaneous, secure transmittal of information that can be validated through peer-to-peer networks versus through intermediaries, complicated by human error. Accordingly, the use cases have grown exponentially in the last few years as new blockchain innovations inspired by the Bitcoin blockchain have emerged.

Some are proprietary solutions (think of a company's intranet versus the open Internet), and some are open-source solutions that allow for distributed computer programs to be hosted and executed (such as Ethereum or Solana). In other words, there are various ways blockchains are advancing human prosperity and progress.

For today's purposes, I've highlighted a few use-cases that our members are involved in that touch on the matter we're here to discuss:

Cross-Border Payments

The economics of migrant worker remittances and business-to-business (B2B) cross-border payments are important to America's farmers, and blockchain technology has the potential to make these payments faster and more affordable.

A typical remittance fee can be as high as 10.9% per transaction,⁴ while the World Bank estimates that sending payments can cost an average of 6.38% of the amount sent.⁵ In addition, international money transfers can take anywhere from 1 to 5 business days depending on the banks involved, the destination country, bank hours of operation, and needed currency conversions.⁶ In contrast, payments providers operating in South America and Africa using bitcoin and other digital assets charge transaction commissions as low as .1%.⁷ Since analysts expect that the remittance market will grow between \$200 billion to over \$900 billion by 2026, lower fees will ensure that more funds go to workers and their families instead of to intermediaries.⁸

Chamber members are applying blockchain technology to help lower the cost of cross-border payments. For example, in testimony before the House Financial Services Committee in December of 2021, Stellar Development Foundation CEO Denelle Dixon explained how Stellar's blockchain facilitates faster settlement than traditional cross-border transactions.⁹

⁴ "Bitcoin gains traction as vehicle for sending remittances home to Mexico," Mexico News Daily, May 10, 2021. <https://mexiconewsdaily.com/news/bitcoin-gains-traction-as-vehicle-for-sending-remittances-home-to-mexico/>

⁵ "Remittance Prices Worldwide," The World Bank, March 2021. <https://remittanceprices.worldbank.org/en>

⁶ "How long do international money transfers take?," Cecilia Hendrix, *Western Union*, April 5, 2021.

<https://www.westernunion.com/blog/au-how-long-does-international-money-transfer-take/>

⁷ "The new wave of crypto users: migrant workers," Andalusia Knoll Sol, *Rest of World*, April 26, 2021.

<https://restofworld.org/2021/crypto-remittances/>

⁸ "Global Remittance Market is Expected to Grow by \$200 Billion by 2026," Polly Jean Harrison, *The FinTech Times*, June 29, 2021. <https://thefintechtimes.com/global-remittance-market-is-expected-to-grow-by-200-billion-by-2026/#:~:text=Global%20Remittance%20Market%20is%20Expected%20to%20Grow%20by,transfer%20market%20Reached%20over%20%24700%20billion%20in%202020.>

⁹ "Testimony of Denelle Dixon, CEO and Executive Director, Stellar Development Foundation Before the United States House of Representatives Committee on Financial Services," *Stellar Development Foundation*, December 8, 2021.

MoneyGram International, a well-known name in cross-border transfers, has also begun a pilot program that allows customers to make cross-border stablecoin transactions that are converted into a currency of the sender's choice without the need for a bank account.¹⁰ While there are fees associated with currency conversion, transferring funds on a traceable blockchain provides for a more secure transaction option than legacy payments solutions and faster fund collection for the recipient.

Blockchain technology is also enabling small- and medium-sized businesses to better facilitate cross-border commerce. In December, B2B payments business Tribal Credit launched a partnership with digital asset exchanges Bitso and Stellar that allows businesses in Mexico to send payment in pesos to the U.S., while the U.S. business receives payment in USD.¹¹ This partnership has the potential to facilitate faster payments and better relationships among the 62 million small- and medium-sized businesses that transact globally each year.

Supply chains & ownership registries

Blockchain technology is not just about payments. It also allows users to efficiently verify online identities or information while maintaining control of sensitive data in agriculture, healthcare, and other important sectors.

A May 2021 Congressional Research Service report cited a few use cases in the agriculture sector, particularly in supply chain and food sourcing. These examples illustrate how blockchain can help achieve a higher policy goal of food safety through the tracing of a food's origin and ensuring against fraud, as in the case of the U.S. Department of Agriculture's (USDA) Agricultural Marketing Service's National Organic Program.

Blockchain technologies are already making a meaningful difference in livestock-ownership recordkeeping. From Wyoming¹² to Burma¹³ to Bolivia,¹⁴ blockchain technologies are being used to bring livestock ownership registries into the 21st Century. The USDA recently said it expects blockchain technology to play an "essential role" in our nation's complex agricultural supply chains.¹⁵

¹⁰ "[MoneyGram International Launches a New Pilot on Stellar](https://stellar.org/blog/moneygram-international-launches-a-new-pilot-on-stellar?locale=en)," *Stellar*, November 17, 2021.

<https://stellar.org/blog/moneygram-international-launches-a-new-pilot-on-stellar?locale=en>

¹¹ "[Tribal Credit, Bitso, Stellar Development Foundation Partner to Enable Faster, Cheaper Int'l B2B Payments in LatAm](https://www.tribal.credit/press-releases/tribal-credit-bitso-stellar-development-foundation-partner-to-enable-faster-cheaper-intl-b2b-payments-in-latam)," *Tribal Credit*, December 9, 2021. <https://www.tribal.credit/press-releases/tribal-credit-bitso-stellar-development-foundation-partner-to-enable-faster-cheaper-intl-b2b-payments-in-latam>

¹² "Cheyenne Cattlepass Cocreating Cattle Tracking NFTs." *Wyoming News*.

https://www.wyomingnews.com/news/cheyenne-s-cattlepass-co-creating-cattle-tracking-nfts/article_db88058e-8384-5db5-8973-e6bafaa7852f.html

¹³ "Blockchain Use Cases for Inclusive FinTech: Scalability, Privacy, and Trust Distribution." David Kuo Chuen Lee. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3629135

¹⁴ "Bolivian Cattle Ranch will be Tokenized to Open Up Business to Investors." *Nasdaq*. Sebastian Sinclair.

<https://www.nasdaq.com/articles/bolivian-cattle-ranch-will-be-tokenized-to-open-up-business-to-investors-2020-11-30>

¹⁵ "Blockchain to Play 'Essential Role' in Farming Supply Chains, Says US Government." *Coindesk*. Paddy Baker. <https://www.coindesk.com/markets/2020/08/11/blockchain-to-play-essential-role-in-farming-supply-chains-says-us-government/>

Blockchain is also being used to improve food safety in supply chains. Partnering with IBM food trust blockchain, Walmart and its suppliers can track the status of produce sold in its stores. It can use this blockchain technology to efficiently identify the source location of produce, which will help consumers avoid items that have been affected by E. coli or Salmonella outbreaks.

In addition to efficiency, businesses can leverage the transparency of the blockchain to ensure ethical sourcing. For example, Ford Motor Company is a member of the Responsible Sourcing Blockchain Network to ensure it sources minerals from suppliers with ethical working conditions.

The military is also aware of the supply chain benefits of blockchain technologies. In 2020, the U.S. Air Force provided \$1.5 million to an Indiana-based blockchain firm to build out a platform for supply chain logistics.¹⁶ Last year, the U.S. Navy commissioned a \$1.5 million blockchain system to help the Department of Defense’s Defense Logistics Agency better sense demand and to manage supplies for our nation’s warfighters.¹⁷ Concerningly, geopolitical adversaries like the People’s Republic of China (PRC) have more deeply embraced blockchain’s industrial use cases. For example, Chinese authorities have committed to building an “advanced blockchain industrial system” to advance civil-military objectives, and blockchain technology is a key component of the Chinese Communist Party’s Five Year Plan.¹⁸

Of particular interest is the PRC’s efforts to build smart cities on blockchains ultimately controlled by the state. As with any technology, however, blockchain is neutral, and its applications can be either good or bad. Although the PRC seeks to leverage blockchain technology for illiberal ends, blockchain can also be used in a free and open society – like the U.S. – to facilitate expression, improve the delivery of government benefits, and record digital identities.

Some Chamber members, for example, have created a marketplace for pieces of art on the blockchain.¹⁹ Other Chamber members, such as IBM, Burst IQ, and Ontology, are leveraging blockchain technology to allow users to verify their digital identities online while maintaining control over sensitive personal data in healthcare, the auto industry, financial services and elsewhere.²⁰

¹⁶ “US Air Force Gives Blockchain Firm \$1.5M to Build Supply Chain Network.” Coindesk. Danny Nelson. <https://www.coindesk.com/markets/2020/06/15/us-air-force-gives-blockchain-firm-15m-to-build-supply-chain-network/>

¹⁷ “SIMBA Chain Receives a \$1.5 Million SBIR Phase II Contract from the US Office of Naval Research.” Global News Wire. <https://www.globenewswire.com/news-release/2021/01/13/2157839/0/en/SIMBA-Chain-Receives-a-1-5-Million-SBIR-Phase-II-Contract-From-the-U-S-Office-of-Naval-Research.html>

¹⁸ “China Plans to Accelerate Blockchain Development and Adoption in Push to Become a World Leader in Technology by 2025.” South China Morning Post. Coco Feng. <https://www.scmp.com/tech/tech-trends/article/3136515/china-plans-accelerate-blockchain-development-and-adoption-push>

¹⁹ “Nifty Gateway,” *Gemini*, 2022

²⁰ IBM has developed a blockchain based platform that has been used by businesses, universities, and others to manage digital identities. “[Blockchain for digital identity and credentials](#),” IBM, last accessed November 3, 2021. Burst IQ has created a platform for personalized healthcare identities. Burst IQ, [Company](#), accessed November 4, 2021. Ontology’s decentralized identity application is being used in various leading consumer products including Mercedes-Benz vehicles. Ontology, “[Over 1.5 Million Users Now Managing Their Digital Identity Using ONT ID, Ontology’s Decentralized Identity Application](#),” September 9, 2021.

Trade finance

Many Chamber members are also applying blockchain to improve trade finance. Trade finance is the practice whereby banks provide credit to guarantee the exchange of goods. The trade finance market still predominantly relies on manual contract creation, slow payment processing, manual AML reviews, and other inefficiencies that rely on intermediation. Blockchain technology is improving the trade finance market in several ways.

The transparent and immutable ledger that is foundational to blockchain technology gives all parties involved greater visibility and control of transactions that occur during trades by providing a point of truth. Self-executing smart contracts can automatically trigger payments, which provide near-instant settlement if made via blockchain. Blockchain analytics providers can conduct automatic AML risk assessments as transactions are added to the blockchain, and flag suspicious activity.

Chamber member IBM is already demonstrating the benefits that blockchain can provide for trade finance. IBM Blockchain has partnered with 16 banks in 15 countries to develop the we.trade network, which automates trade finance processes and provides traders with credit rating and logistics services. IBM found that members joined the network to facilitate more trade in emerging markets, and that network transaction volumes are growing rapidly. Additionally, Chamber member Citi is an investor and participant in Contour, a blockchain-based trade finance network that digitizes trade finance contracts and transaction records, improves security, and provides real-time data synchronization for participants in the trade ecosystem.

III: Debunking Digital Asset Myths

Despite these use cases and the growth of this market, there continue to be a number of myths regarding digital assets and blockchain. We are here today to provide facts to dispel these myths.

Myth A: Digital assets fuel ransomware and money laundering activity - FALSE

Some say the rise in digital assets is to blame for the recent surge in ransomware attacks and online financial crime. The increase in ransomware is not being driven by digital assets, but rather, by a lack of adequate cybersecurity across a rapidly digitizing economy. COVID-19 accelerated the digitization of workspaces and data; unfortunately, America's cyber hygiene has not kept up. The analytics capabilities of blockchain and increased partnerships between Chamber members and law enforcement, however, is proving effective in tracking down perpetrators of ransomware and other criminal activities. The Chamber, recognizing the need to support law enforcement agencies and fostering relationships between law enforcement and industry, co-founded the Blockchain Alliance, a public-private forum between U.S. and international law enforcement agencies and innovators.

It is important to understand that ransomware is not a new phenomenon. The first documented ransomware attack took place in 1989,²¹ and in the early 2000s – long before the first bitcoin was mined – criminal organizations began to leverage ransomware.²² Ransomware payments have taken many forms over the past few decades, including wire transfers, prepaid debit cards, gift cards, cash payments, and other forms of value.²³ The use of digital assets is unfortunately just the newest iteration of this scheme.

Unlike previous means of payment used in ransomware attacks, however, digital assets make it possible to track ransomware payments. This characteristic was made clear in the aftermath of the recent ransomware attack on Colonial Pipeline. Using blockchain analytics tools, the FBI tracked the flow of funds from Colonial Pipeline to the cybercriminals and then seized the funds.²⁴ Thanks in large part to the sophisticated blockchain analytics technologies of such Chamber members as Chainalysis and TRM Labs, as one FBI field agent told *The Wall Street Journal*, “You can’t hide behind cryptocurrency.”²⁵

This transparency is likely a contributing factor to why cryptocurrency is not a preferred medium for financial crime. Overall, digital asset-related transactions represent a very small fraction of total financial crime. The United Nations estimates that the amount of money laundered globally in one year is 2% to 5% of global GDP, or \$800 billion to \$2 trillion in current U.S. dollars.²⁶ By comparison, illicit activity comprised just 0.05% of digital asset transaction volume.²⁷ This is an infinitesimal percent of global GDP. Illicit actors will always attempt to use cutting-edge technology to facilitate financial crime; however, money laundering via digital asset payments is not common.

Myth B: Digital assets – and those who issue/trade digital assets – create a systemic risk in the U.S. financial system – FALSE

The President’s Working Group on Financial Markets has suggested that there may be a role for the Financial Stability Oversight Council (FSOC) to determine the systemic risk associated with stablecoins, a type of digital asset.

Digital asset trading volume and market capitalization demonstrate that digital assets do not currently pose systemic risk to the market. On any given day, the largest U.S. digital asset trading

²¹ Danny Palmer, “[30 years of ransomware: How one bizarre attack laid the foundations for the malware taking over the world](#),” *ZDNet*, December 19, 2019.

²² Fabio Palozza, “[The Origin of Ransomware and Its Impact on Businesses](#),” *Radware Blog*, October 4, 2018.

²³ J.P. Koning, “[Fighting Ransomware Doesn’t Require Banning Cryptocurrency](#),” *American Institute for Economic Research*, May 29, 2021.

²⁴ David Uberti, “[How the FBI Got Colonial Pipeline’s Ransom Money Back](#),” *The Wall Street Journal*, June 11, 2021.

²⁵ *Ibid.*

²⁶ “[Money Laundering](#),” *United Nations Office of Drug & Crime*, accessed November 3, 2021.

²⁷ [Crypto Crime Trends for 2022: Illicit Transaction Activity Reaches All-Time High in Value, All-Time Low in Share of All Cryptocurrency Activity](#), *Chainalysis*, January 6, 2022. See also [DeFi Takes on Bigger Role in Money Laundering But Small Group of Centralized Services Still Dominate - Chainalysis](#)

platform typically experiences around 1% of the trading volume of Nasdaq, the largest U.S. stock exchange.²⁸

Measuring by asset size also underscores that U.S. cryptocurrency activity poses no systemic risk. The balance sheet of the largest digital asset trading platform is \$15.9 billion, about the size of a community bank. For comparison, the balance sheet of the largest U.S. bank is \$2.5 trillion.²⁹ U.S. digital asset companies are also not leveraged to the degree of commercial banks.

Some point to digital asset market volatility as a cause for concern. Just as with the volatility in the traditional stock market, bitcoin and other digital asset price volatility does not pose a systemic risk resulting in firm failures or bankruptcy.

Myth C: The digital asset industry is fraught with unregulated speculation and fraud - FALSE

The digital asset industry is regulated at both the Federal and State levels. At the Federal level, depending on the type of digital asset and its use, a number of financial regulators have digital assets in their jurisdiction. For the discussion today, I will focus on the role of the Commodity Futures Trading Commission (CFTC).

The CFTC has deemed the digital assets bitcoin and ether as commodities and as such, pursuant to the Commodity Exchange Act, has regulatory authority over derivatives products and those market participants that touch such products, including designated contract markets and swap execution facilities. Additionally, the CFTC has fraud and anti-manipulation enforcement authority over the spot market for commodities,³⁰ which include bitcoin and ether. Moreover, digital asset exchanges and stablecoin providers are also subject to State-level money transmitter and payments laws. Many cryptocurrency businesses are also required to register and report to the Financial Crimes Enforcement Network (FinCEN) as money services businesses.³¹ In addition, digital asset exchanges and digital asset issuers are required to comply with State and Federal consumer protection laws. The U.S. Securities and Exchange Commission (SEC) has also asserted that a variety of digital assets are unregistered securities offerings, and thus subject to SEC jurisdiction.

The issue is not a *lack* of regulation, but rather a *disjointed* regulatory approach without clear rules of the road. This problem and proposed solutions are set forth in more detail in sections IV, V, and VI of my testimony.

Myth D: Digital assets – and in particular – the creation of digital assets on blockchain harm the environment - FALSE

Like the traditional financial industry, ensuring the functionality and integrity of the Bitcoin network and other proof-of-work blockchains require energy use. However, digital asset mining

²⁸ Daily trading volume data is for Coinbase was retrieved from [nomics](#) and [NasdaqTrader.com](#) for Nasdaq.

²⁹ Balance sheet data retrieved from [Investing.com](#) for Coinbase and the [Federal Reserve Board](#) for JPMorganChase

³⁰ “[CFTC Jurisdiction Over Cryptocurrency – Implications for Industry Participants](#),” *White & Case*, November 12, 2019.

³¹ *Ibid.*

brings with it an opportunity that the United States should not overlook. Namely, digital asset mining is helping spur sustainable energy practices, accelerating and funding the transition to renewable energy, and offering economic revitalization to underserved rural areas.

In 2020 bitcoin mining was estimated to use 188 terawatts of power, which is about 0.122% of global energy consumption. According to the Bitcoin Mining Council, 58.5% of the industry's energy use comes from sustainable sources; no other industry comes close to such an energy mix – bitcoin mining is one of the most sustainable industries in the world today.³²

For comparison, in 2020 renewable energy sources accounted for about 12% of total energy consumption in the United States.³³ Much of the growth in market share for renewables for digital asset mining can be attributed to a recent exodus from China to the United States, resulting in a rapid increase of sustainable energy use due to bitcoin mining in the U.S. If we do not take advantage of this opportunity in the United States, other less developed countries will allow digital mining with more emissions and far less oversight.

The growth of bitcoin mining in the U.S. will accelerate the adoption of renewable power generation. Utilities have a greater incentive to invest in solar and wind energy when they know that they will have a consistent customer in a bitcoin miner. As well, unlike other energy consumers, bitcoin miners can power down when the grid is experiencing strain, and power up when the grid has excess load from renewables. This ability leads to less wasted energy, better grid management on extreme load cases, enough bitcoin mining revenue for utilities to continue developing and adopting renewables, and reduced costs from efficiencies derived from higher base loads.

Bitcoin miners are also helping reduce waste and carbon emissions in fossil fuel industries. For example, bitcoin miners are relocating to oil fields to use natural gas that drillers are unable to transport and typically vent into the atmosphere as methane in a process called “flaring.”³⁴ Methane is a much more powerful greenhouse gas than carbon (25x worse), and reducing the practice of flaring helps lessen the environmental impact of drilling.³⁵ Pressure from government and the private sector to reduce carbon emissions overall will likely continue to propel bitcoin miners to innovate and seek out renewable and lower carbon-intensive energy sources.

Digital asset mining has also helped create new jobs in states across the country, including Washington, North Carolina, Montana, Oklahoma, New York, South Carolina, Pennsylvania, Georgia, Kentucky, Ohio, Texas, and North Dakota.³⁶ In many cases, mining companies have

³² [“Q4 Bitcoin Mining Council Survey Confirms Improvements in Sustainable Power Mix and Technological Efficiency,”](#) *Bitcoin Mining Council*, 2022.

³³ [“How much of U.S. energy consumption and electricity generation comes from renewable energy sources?”](#) U.S. Energy Information Administration, last modified May 14, 2021.

³⁴ Laila Kearney, [“Oil drillers and Bitcoin miners bond over natural gas,”](#) *Reuters*, May 21, 2021.

³⁵ [“Bitcoin miners help US oil producers cut flaring,”](#) *Argus*, October 8, 2021.

³⁶ Taras Kulyk, [“Mining Digital Assets Creates Opportunities For Institutional Investors And Communities Alike,”](#) *Core Scientific*, March 9, 2021.

chosen to locate operations in areas devastated by deindustrialization and in rural communities, helping reinvigorate those local economies.³⁷

Bitcoin is a global network, and bitcoin mining is not going away. If the U.S. implements policies to limit or inhibit bitcoin mining, then miners will be driven to other countries. Non-U.S. mining locations will likely have a higher share of fossil fuels as part of their energy mix, and less oversight over emissions.

With appropriate policies, the United States has the opportunity to be a world leader in supporting an industry that will underpin the evolution of financial services infrastructure, while helping propel advances in sustainable energy.

IV. The Current U.S. Regulatory Landscape is Fragmented

There is no single federal regulator of digital assets in the United States, nor any one, cohesive regulatory approach. Instead, there exists a panoply of federal regulators with some interest and role in this exciting new industry. Unfortunately, each of these regulators views the industry through its own unique lens and in the context of its own set of statutes and regulations. Even worse, under the current “regulation by enforcement” paradigm, there is often a lack of clarity regarding how rules of the road are applied.

Some digital asset regulators police fraud and market integrity, such as the SEC and the CFTC. Then there are consumer protection regulators, such as the Consumer Financial Protection Bureau (CFPB) and the Federal Trade Commission (FTC). There are also banking regulators, such as the Board of Governors of the Federal Reserve System (FRB), the Office of the Comptroller of the Currency (OCC), and the Federal Deposit Insurance Corporation (FDIC).

Another category of regulators on the federal level consists of anti-crime organizations, such as the Department of the Treasury’s Financial Crimes Enforcement Network (FinCEN) and the Department of Justice (DOJ). There are also federal-level organizations, such as the Federal Financial Institutions Examination Council (FFIEC), the Financial Stability Oversight Council (FSOC), and the President’s Working Group on Financial Markets (PWG), that are intended to coordinate the efforts of the many regulators listed above. On top of all of this, there are also a number of state-level regulators and laws.

As the digital asset industry has evolved, various regulators have put out guidance, rules, and enforcement actions that are sometimes divergent or conflict from prior actions and/or those of

³⁷ Matthew De Saro, “[Ponderay Newsprint Mill Reopens as Crypto Mining Operation](#),” *Beincrypto*, last modified September 16, 2021. Kate Rooney, “[An old Alcoa plant in Upstate New York is going to be converted into one of the world’s largest bitcoin mining centers](#),” *CNBC*, June 5, 2018

other regulators. In my testimony, I will focus primarily on the regulation applied to digital assets by the CFTC and the SEC, as well as a very brief discussion of other State and Federal regulation.

A. CFTC

The Commodity Exchange Act (CEA) broadly defines a “commodity” as, among other things, “all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in.” Through regulatory approvals, statements, and its enforcement posture, the CFTC has made clear that it views bitcoin and ether, the two largest digital assets by market capitalization, to be commodities for purposes of CFTC regulation.

In a 2015 enforcement action against Coinflip Inc., the CFTC explained that “Bitcoin and other virtual currencies are encompassed in the definition and properly defined as commodities.”³⁸ This made the CFTC one of the first regulators to define virtual currencies and assert jurisdiction over them.

In December 2017, the CFTC permitted the CBOE Holdings, Inc., and the CME, both CFTC-regulated exchanges, to list futures contracts with bitcoin as the underlying commodity. In October 2019, then-Chairman Heath Tarbert explained that “[w]e haven’t said anything about ether – until now. It is my view as Chairman of the CFTC that ether is a commodity, and therefore it will be regulated under the CEA. And my guess is that you will see, in the near future, ether-related futures contracts and other derivatives potentially traded . . . It’s my conclusion as Chairman of the CFTC that ether is a commodity and therefore would fall under our jurisdiction.”³⁹

Soon thereafter, CFTC-regulated exchange ErisX listed an ether futures product, followed shortly by CME’s own exchange-traded ether futures product.⁴⁰ As a result, today’s CFTC’s oversight and enforcement authorities cover a significant portion of the digital assets market. The total market cap of all digital assets, including stablecoins is approximately \$1.86 trillion. Notably, bitcoin represents \$734.2 billion and ether represents \$333.1 billion of that \$1.86 trillion, or 57.4% of that market cap. By comparison, the next-largest market cap digital asset is the U.S. Dollar-based stablecoin Tether, which makes up \$77.98 billion.

B. SEC

Over time, the SEC has brought enforcement cases alleging that certain digital assets are securities for purposes of asserting enforcement jurisdiction. Unlike the CFTC, however, which has specifically stated that certain digital assets fall squarely in its regulatory jurisdiction, the SEC has not provided a list of tokens it deems to be securities and has instead stated that digital assets require a “facts and circumstances” approach to determining if a digital asset qualifies as an “investment contract” under the *Howey* Test. The first time the SEC weighed in with definitive views on whether or not a particular digital asset might be a security was in its July 2017 report on

³⁸ See [Order: Coinflip, Inc., d/b/a Derivabit, et al](#)

³⁹ [IN CASE YOU MISSED IT: Chairman Tarbert Comments on Cryptocurrency Regulation at Yahoo! Finance All Markets Summit | CFTC](#) CFTC Press Release Number 8051-19, October 10, 2019

⁴⁰ Nikhilesh De, [ErisX Announces Launch of First US Ether Futures Contracts – CoinDesk](#), CoinDesk, May 11, 2020

an investigation of “The DAO” pursuant to Section 21(a) of the Securities Exchange Act of 1934 (the “Dao Report”).⁴¹ The SEC explained, in part, that so-called “DAO Tokens” were securities because these tokens gave holders voting rights and a right to distribution of profits.

After the DAO Report, the SEC made several similar statements, and SEC staff has provided guidance on determining the applicability of securities laws to digital assets.⁴² These statements and staff guidance have focused on the applicability of securities laws to initial coin offerings (ICOs).

In 2018, the SEC addressed the issue of ether as a commodity in a speech from William Hinman, the Director of the SEC Division of Corporation Finance. Director Hinman explained, “The network on which bitcoin functions is operational and appears to have been decentralized for some time, perhaps from inception. Applying the disclosure regime of the federal securities laws to the offer and resale of bitcoin would seem to add little value.”⁴³ He went on to explain, “putting aside the fundraising that accompanied the creation of Ether, based on my understanding of the present state of Ether, the Ethereum network and its decentralized structure, current offers and sales of Ether are not securities transactions. And, as with bitcoin, applying the disclosure regime of the federal securities laws to current transactions in Ether would seem to add little value. Over time, there may be other sufficiently decentralized networks and systems where regulating the tokens or coins that function on them as securities may not be required.”⁴⁴

Based on Director Hinman’s remarks, it would appear that something that might start life as a security could, over time, become sufficiently decentralized as to no longer be deemed a security. Hinman explained that there is a path by which:

“[A] digital asset transaction may no longer represent a security offering. If the network on which the token or coin is to function is sufficiently decentralized – where purchasers would no longer reasonably expect a person or group to carry out essential managerial or entrepreneurial efforts – the assets may not represent an investment contract. Moreover, when the efforts of the third party are no longer a key factor for determining the enterprise’s success, material information asymmetries recede. As a network becomes truly decentralized, the ability to identify an issuer or promoter to make the requisite disclosures becomes difficult, and less meaningful.”⁴⁵

⁴¹ [Report of Investigation Pursuant to Section 21\(a\) of the Securities Exchange Act of 1934: The DAO.](#)

⁴² See e.g. Investor Bulletin: Initial Coin Offerings (July 25, 2017), available at [Investor Bulletin: Initial Coin Offerings](#); “Depending on the facts and circumstances of each individual ICO, the virtual coins or tokens that are offered or sold may be securities.” See also “Framework for “Investment Contract” Analysis of Digital Assets,” (April 3, 2019) available at: <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets>. This staff statement represents staff views and is not a rule, regulation, or statement of the Commission.

⁴³ William Hinman, [Digital Asset Transactions: When Howey Met Gary \(Plastic\)](#), Remarks at the Yahoo Finance All Markets Summit: Crypto, SEC Website June 14, 2018.

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

SEC activity related to digital assets increased dramatically last year and throughout 2021 SEC Commissioner Hester Peirce, as well as then-SEC Commissioner Elad Roisman, criticized the lack of clarity in SEC guidance with respect to the application of securities laws to digital assets. In a statement regarding an SEC settlement with Blotics, Ltd., the two Commissioners stated that “[a]lthough the Commission staff has provided some guidance, the large number of factors and absence of weighting cut against the clarity the guidance was intended to offer.” In the absence of clear guidance, Commissioners Peirce and Roisman argued that “litigated and settled Commission enforcement actions have become the go-to source of guidance.” The Commissioners observed that “people can study the specifics of token offerings that become the subject of enforcement actions and take clues from particular cases; however, applying those clues to the facts of a completely different token offering does not necessarily produce clear answers. Providing guidance piecemeal through enforcement actions is not the best way to move forward.”⁴⁶ While the views of individual Commissioners do not reflect the views of the SEC, these views do reflect a lack of consensus within the Commission as to how digital assets should be regulated.

C. Other Financial Regulators

Below is a high-level summary of the other financial regulators and their roles in regulating digital assets.

FinCEN

FinCEN regulates, among other things, “money services businesses” (MSBs) that transmit or convert money under the Bank Secrecy Act (BSA). Entities that qualify as “exchangers” or “administrators” of “currencies” or “convertible virtual currencies” must comply with the BSA and the regulations promulgated thereunder. In short, while the CFTC treats such digital assets as bitcoin and ether as commodities, and the SEC views many digital assets as securities, FinCEN often treats these same digital assets as currency for purposes of determining if a money service business must comply with its regulations.⁴⁷

IRS

For federal tax purposes, rather than being treated as currency, the IRS treats virtual currency as property. General tax principles applicable to property transactions apply to transactions using virtual currency.⁴⁸

Federal Reserve System

The Federal Reserve System has been studying the role of stablecoins and central bank digital currencies (CBDC) in the economy. The Federal Reserve System runs national payments rails,

⁴⁶ See [statement of SEC Commissioners Hester M. Peirce and Elad L. Roisman](https://www.sec.gov/news/public-statement/peirce-roisman-coinschedule) *In the Matter of Coinschedule*, July 14, 2021 <https://www.sec.gov/news/public-statement/peirce-roisman-coinschedule>.

⁴⁷ FIN-2013-G001, “Application of FinCEN’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies,” (March 18, 2013) at <https://www.fincen.gov/sites/default/files/shared/FIN-2013-G001.pdf> (2013 FinCEN Guidance).

⁴⁸ IRS Notice 2014-21, <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>

such as Fedwire, and has the authority to allow state-chartered financial institutions access to these networks. Although Wyoming-chartered institutions have applied for such access, the Federal Reserve System has yet to approve their applications.

Office of the Comptroller of the Currency (OCC)

A number of other federal regulators have issued a patchwork of inconsistent guidance for digital assets. For instance, the OCC issued a series of Interpretive Letters suggesting that banks were authorized to engage in the custody of digital assets and payments that use certain digital assets. Shortly thereafter, when the new Acting Comptroller took over the OCC, that authority was pulled back and not permitted absent express permission from the OCC.⁴⁹

State Regulators

State financial-services agencies have also issued rules and regulations to varying degrees. Licensing and bonding are required in some states for the exchange of fiat and digital currency. Some states have revised regulations to incorporate digital currency, and some states have produced guidance for digital currency businesses. The New York Department of Financial Services requires companies doing certain types of digital currency business in the State of New York to apply for a Bitlicense, and most states have some form of Money Transmitter License requirement for people handling payments and exchanges of digital assets in their states. Some states also have varying consumer protection and tax laws or regulations that apply to digital asset activities within the state.

V. Risks to the United States

As explained above, the current regulatory framework for digital assets is disjointed. The risks to the United States from this lack of cohesion have already begun to crystallize as companies use regulatory arbitrage to find more friendly countries. The lack of a cohesive national plan has led a number of U.S. companies and investors to take their innovations and capital to other jurisdictions where they have more regulatory certainty and innovation-friendly laws. There are also national security implications: when activity occurs offshore, it is harder to monitor, detect, prevent, and prosecute illicit activity.

The U.S. “won” the Internet in its early days because President Clinton issued a directive to Executive branch agencies to make clear that regulators should be technology neutral, support private sector-driven solutions, and promote industry-led self-regulation. This approach paved the way for one of the greatest drivers of American innovation and prosperity in generations. As I mentioned above, blockchain is a continuation of the Internet revolution – an economic engine that will bring tremendous prosperity to society if it is allowed to flourish and enable the Internet to reach its full potential. Absent a better approach to the regulation of digital assets, we will likely

⁴⁹ Office of the Comptroller of the Currency News Release 2021-121, <https://www.occ.gov/news-issuances/news-releases/2021/nr-occ-2021-121.html>, November 23, 2021.

watch much of the economic activity occur outside of our borders, thereby forfeiting the bounty of new jobs, new companies, and more tax revenue.

VI. Solutions

National Action Plan for Blockchain

In February 2019, the Chamber of Digital Commerce introduced a National Action Plan for Blockchain.⁵⁰ The Chamber is calling on the highest levels of the U.S. government to embrace a comprehensive, national strategy for blockchain. The plan proposes that the U.S. approach blockchain technology with clearly articulated support to encourage the private sector development and innovation required of emerging industries.

The National Action Plan's proposed guiding principles for government are:

1. Encourage development by the private sector;
2. Adopt a regulatory approach that does no harm while the industry establishes key innovations, bringing enforcement actions against clear violations of law;
3. Clear and established policies and regulations set prior to enforcement;
4. Any regulation should be based on the function performed, not the technology;
5. Prevent regulatory patchwork;
6. Any necessary regulation or law should be clear, predictable, and developed with future innovation in mind;
7. Study and understand the unique attributes of blockchain technology and digital assets; and
8. Establish an office that coordinates U.S. blockchain strategy going forward.

We note recent reports that the Biden administration intends to issue an executive order that may address the regulation of digital assets, and we hope that the administration will consider our Action Plan recommendations.

Regulatory Clarity

In addition to our National Action Plan for Blockchain, the Chamber supports a number of initiatives aimed at achieving greater regulatory clarity for the digital assets industry.

Joint Working Group

We have called for the creation of a joint CFTC, SEC, and industry working group to promote a more harmonious regulatory approach, and we are pleased to see and support recent bipartisan legislation and encourage further collaboration to that end.

⁵⁰ Chamber of Digital Commerce, [National Action For Blockchain](#), February 2019

The U.S. Needs a Lead Regulator

Given the fragmented nature of the U.S. regulatory landscape and the risk of “not getting it right,” we recommend that there be one lead regulator for digital assets. To be clear, the lead regulator need not be the only regulator for digital assets market activity; where appropriate, other regulators could be primarily responsible for certain subsets of the digital assets marketplace. There are many examples where multiple regulators have jurisdiction over different aspects of an industry, but one regulator takes the lead. For example, the CFTC and the USDA both have some oversight and jurisdiction over different aspects of agricultural commodities. This approach can eliminate unnecessary regulatory burdens, provide a comprehensive regulatory approach, and help centralize regulatory expertise.

One existing regulator that could be well-positioned to take up the role of a lead regulator is the CFTC. In fact, during his confirmation hearing, then-Acting Chairman Rostin Benham highlighted his role in regulating this significant portion of the market:

“This is the tip of the iceberg . . . As of yesterday, the total size of the digital asset market was \$2.7 trillion. Among that \$2.7 trillion, nearly 60% were commodities [...] given the size, the scope and the scale of this emerging market, how it’s interfacing and affecting retail customers, and with the scale of the growth being so rapid, potential financial stability risks in the future, I think it’s critically important to have a primary cop on the beat.”

I will focus the remainder of my comments today on why we believe the CFTC can lead, as I assume this Committee will be most interested, given your direct oversight of the Commission.

The CFTC is a market regulator with a long history of taking on the regulation of new and innovative products. The first CFTC-regulated exchanges listed agricultural commodity-based products. It would be hard to imagine back then that these same exchanges would be listing contracts based on foreign currency, interest rates, the S&P 500, volatility indexes, bitcoin, or ether. The CFTC already regulates a large swath of the digital assets market. As noted above, bitcoin and ether, which make up the majority of the value in the digital asset industry, are the underlying commodities for regulated futures contracts, and the CFTC has spot market anti-fraud and anti-manipulation enforcement authority as well (albeit somewhat limited).

The CFTC also has a history of vetting and approving new types of exchanges to trade new, innovative products, including climate, interest rate, event contracts and most recently, digital assets. Given that the CFTC has already reviewed and approved a number of exchanges that focus on digital asset-based products, it already has a great deal of regulatory expertise to bring to bear.

Another supporting consideration is the CFTC’s principles-based regime that has, as part of its mission, a mandate to promote responsible innovation and competition in the marketplace. A principles-based model is especially effective in the regulation of a new asset class or technology because it allows the regulator to set out the desired regulatory outcomes, but gives the market flexibility to innovate in how those outcomes are achieved.

The CFTC has long been a proponent of innovation, leading the charge among federal financial agencies in creating an innovation office: In 2017, the CFTC created LabCFTC to serve as a gateway for innovators and to ensure that responsible innovation continues to grow.

The CFTC's long history of working cooperatively with other regulators is another important consideration. The CFTC has a history of coordinating and cooperating with the USDA (on agriculture products), FERC (on electricity products), EPA (on environmental products), the SEC (on securities-based products), and other regulators. The CFTC has also developed a robust regime of coordination and mutual recognition with foreign regulators, something that is crucial given the ease with which digital assets can be moved across jurisdictions. We believe a cooperative approach with the SEC and other regulators will be necessary to effectively regulate the digital asset industry and that the CFTC is well positioned in this regard.

Most importantly, the CFTC has a strong and robust enforcement program, with experience in successfully enforcing cases of fraud, market manipulation, and other illegal activity. A good example of this is the CFTC's experience in dealing with retail foreign currency fraud. In the late 1990s and early 2000s, the CFTC saw a raft of retail foreign currency scams and undertook a significant number of cases to weed out fraudsters and protect retail customers. However, there was a lack of legal clarity for the CFTC's regulatory jurisdiction over certain leveraged spot transactions. Congress took action and gave the CFTC the authority it needed to fully police this market in the 2008 amendments to the Commodity Exchange Act.

VII. Conclusion

With an appropriate and clear policy and regulatory framework, digital assets and blockchain have the great potential to usher in a new era of innovation and economic opportunity for the U.S., businesses and consumers. But to achieve this, it is crucial that the U.S. maintain its leadership of this industry, and that will require a coordinated, national approach and a lead regulator. The Chamber of Digital Commerce believes that with the proper tools and legislative authority, an agency like the CFTC could be both the regulator to promote American innovation and a tough cop on the beat. Of course, for this all to work, Congress will need to carefully delineate the role other regulators play in the digital assets marketplace. The Chamber looks forward to working with Congress, and with you specifically, in achieving such clarity, and to carefully determine and craft the appropriate regulatory structure for the digital assets industry.