

August 8, 2022

Daniel J. Harty, Director
Office of Capital Markets
U.S. Department of the Treasury
1500 Pennsylvania Avenue, NW
Washington, D.C. 20220

Delivered via regulations.gov

Re: Ensuring Responsible Development of Digital Assets; Request for Comment

Dear Director Harty:

Andreessen Horowitz (“**a16z**”) appreciates the opportunity to respond to the Department of the Treasury’s request for comment entitled “Ensuring Responsible Development of Digital Assets; Request for Comment” published on July 8, 2022 (the “**RFC**”). We support the important goals of the Biden administration and the Department of the Treasury in promoting responsible innovation and growth of the digital asset sector. As outlined in Executive Order 14067 (Ensuring Responsible Development of Digital Assets), issued by President Biden earlier this year, “The United States has an interest in ensuring that it remains at the forefront of responsible development and design of digital assets and the technology that underpins new forms of payments and capital flows in the international financial system....”

Creating the right U.S. legal and regulatory frameworks and policies for these technologies will encourage American entrepreneurialism and dynamism and uphold important democratic values such as individual property rights and a free market. a16z believes that the United States is well-positioned to be the global leader in the digital asset industry, provided U.S. companies and developers are appropriately supported. The Department of the Treasury and other U.S. government agencies have a critical role to play in creating an environment that encourages

responsible innovation and ensures that the U.S. remains at the forefront of the international financial system. In short, we believe that blockchain and web3 technology will fundamentally change the Internet and the international financial system, and that it is critically important for American business, jobs, and national security that the U.S. leads the way.

This comment discusses five considerations: (1) Treasury’s process with respect to this RFC and its approach to digital assets more broadly; (2) current adoption, use cases, and future opportunities; (3) impediments to further adoption; (4) general and specific risks in the digital asset ecosystem; and (5) digital assets’ positive impact on vulnerable populations. We note that given the limited time industry has been provided to respond, our comment focuses on certain issues we believe are the most significant. As noted below, we encourage Treasury to extend the comment period to allow a16z and other members of industry to provide a more comprehensive response.

I. About a16z

Founded in Silicon Valley in 2009 by Marc Andreessen and Ben Horowitz, Andreessen Horowitz, also referred to as a16z, is a venture capital firm that backs bold entrepreneurs building the future through technology. a16z invests in seed to venture to late-stage technology companies, focused on bio/healthcare, consumer, crypto, enterprise, fintech, games, and companies building toward American dynamism. a16z has \$33.3 billion in assets under management across multiple funds.

a16z is defined by respect for the entrepreneur and the company-building process. The firm is led by general partners, many of whom are former founders/operators, CEOs, or CTOs of successful technology companies, and who have domain expertise ranging from biology to crypto to distributed systems to security to marketplaces to financial services. Our team is at the forefront of new technology, helping founders and their companies impact and change the world.

a16z aims to connect entrepreneurs, investors, executives, engineers, academics, industry experts, and others in the technology ecosystem. We have built a network of experts including technical and executive talent, top media and marketing resources, Fortune 500/Global 2000 companies, as well as other technology decision makers, influencers, and key opinion leaders. a16z uses this network as part of our commitment to helping our portfolio companies grow their businesses, so our operating teams provide entrepreneurs with access to expertise and insights across the entire spectrum of company building.

At a16z, we believe we need an Internet that can help the U.S. retain leadership in a world of increasing competition, unlock opportunity for the millions on the margins of the innovation economy, and enable people to take control of their digital lives. The solution is web3—the third generation of the Internet—a group of technologies that encompasses digital assets, decentralized applications and finance, blockchains, tokens, and decentralized autonomous organizations (“DAOs”). Together, these tools enable new forms of human collaboration. They can break through the stalemates that define too many aspects of public life and help communities make better collective decisions about critical issues such as how networks will evolve, what behaviors are permitted online, and how economic benefits are distributed. We are radically optimistic about the potential of web3 to restore trust in institutions and expand access to opportunity.

II. Treasury Process with Respect to RFC

a. Additional Time is Needed for RFC Process

a16z believes the emergence of digital assets and web3 more generally presents a once-in-a-generation opportunity to create a more inclusive, secure, fast, and effective financial system. In our view, the continued growth of digital assets and web3 applications is an inevitable response to the failures of the current financial system and centralized Internet. While this phenomenon is inherently global in nature, we believe it is critically important that the U.S.

plays a leading role in promoting the responsible innovation and growth of this industry. We believe this is important both to ensure the myriad benefits are fully and equitably realized, and to avoid ceding ground to foreign countries, many of whom have an adversarial relationship with the U.S., that seek to build the digital asset future around a set of rules designed to benefit them. That is why we are strongly supportive of the Biden administration's goals, as articulated in EO 14067.

With that said, these issues are complex and while a16z supports the administration's desire to move quickly on them, we think it is more important to get the answers right than to get them fast. The Treasury RFC provided only 30 days for industry to respond. We believe this short turnaround has significantly limited the ability of industry to respond in a comprehensive and detailed manner. While comment periods can vary, many Treasury comment periods are 60 days or longer,¹ and we believe use of a truncated comment period for a topic this complex and wide-ranging should merit more time. While a16z has sought to collect and compile information from our portfolio companies, this process has been limited by the RFC's short deadline. Therefore, the comments contained herein are not as detailed or comprehensive as we believe this topic warrants.

Given these timing constraints, we encourage Treasury to reissue the RFC for a 60-day period to allow sufficient time for industry to provide detailed and actionable feedback. We recognize that pursuant to EO 14067 Section 5(b)(i), Treasury must submit a report to the president "on the implications of developments and adoption of digital assets and changes in financial market and payment system infrastructures for United States consumers, investors, businesses, and for equitable economic growth" and that this RFC is intended to facilitate the production of such a report, but we are confident that Treasury and the White House share the desire to ensure the deadlines contained in the EO do not hamper the provision of critical information by industry, which we believe is essential if the Treasury report is to provide significant value in guiding the

¹ See, e.g., Customer Identification Programs, Anti-Money Laundering Programs, and Beneficial Ownership Requirements for Banks Lacking a Federal Functional Regulator, 81 Fed. Reg. 58425 (Aug. 25, 2016) (providing a 60-day comment period); Defining Mutual Funds as Financial Institutions, 74 Fed. Reg. 26996 (proposed June 5, 2009) (providing a 90-day comment period).

administration's digital asset policy. If such an extension is not possible, we trust that Treasury will nonetheless consider any submission made after the August 8 deadline. We have attempted to address the most pertinent matters in the limited time allotted.

b. Need to Stay Engaged with Legislative Process

With respect to process issues, we hope Treasury and the White House will continue to remain actively engaged with Congress and will actively engage with industry to understand the real-world impact that the various proposals will have on U.S. leadership and innovation in this critical emerging technology. While the administration can take certain action via executive orders and regulations, we believe that only new legislation specifically designed to address digital assets will provide a viable framework that ensures the U.S. remains at the forefront of the digital asset ecosystem while also guaranteeing appropriate safeguards.

a16z is pleased to see that several proactive and helpful pieces of legislation have recently been introduced, which will provide regulatory clarity to the industry and help ensure the U.S. will remain dominant in the blockchain industry. In particular, the introduction of the Responsible Financial Innovation Act (“**RFIA**”), the Digital Commodity Exchange Act (“**DCEA**”), and the recent Virtual Currency Tax Fairness Act are steps in the right direction. While work remains to strengthen such legislation, these bills represent bipartisan efforts to bring a clear and workable regulatory regime to the digital asset space and, with the right enhancements, would be a significant benefit to the U.S. economy and its web3 industry.

a16z has also been proactive in making concrete suggestions for legislation that would help ensure U.S. digital asset and web3 leadership while creating workable solutions for industry and adopting appropriate safeguards for consumers and others.² For example, a16z's *A Legal Framework for Decentralized Autonomous Organizations* offers specific legislative suggestions for the creation of a DAO entity structure capable of addressing various entity formation and

² See, e.g., Tomicah Tillemann, Miles Jennings, & James Rathmell, a16z, *Our Proposals to the Senate Banking Committee*, <https://a16z.com/2021/10/05/our-proposals-to-the-senate-banking-committee/>.

operational issues, including filing and paying taxes, opening an entity bank account, signing legal agreements, and limiting liability for DAO members.³ a16z is actively working on a number of similar measures, including a model state law for DAOs and model licenses for non-fungible tokens (“NFTs”), each of which the firm expects to publish in the coming weeks. A domestic legal entity structure is imperative for keeping web3 jobs in the U.S. and will lead to greater regulatory and tax compliance. Standardization of NFT licensing will protect NFT purchasers and foster greater economic activity.

What all of these efforts have in common is adherence to certain basic principles that we believe are essential to fostering a successful U.S. web3 industry. We believe that any regulatory framework that the U.S. ultimately adopts must (1) reduce, to the greatest degree possible, barriers to entry created by expensive, unclear and burdensome regulatory regimes, (2) take into account the unique technological attributes of blockchain technology, (3) recognize that the nature of blockchain projects may shift over time and be able to adapt as projects evolve, and (4) be principle-based and comprehensive in nature to allow a variety of different enterprises to thrive.

With respect to barriers to entry, innovation comes when industry can create new products and services while complying with regulatory obligations that are targeted to the risks posed by the emerging technology. Imposing regulatory burdens arising from existing regimes that are not well suited to addressing the actual risks and benefits of emerging technologies effectively bars many early-stage companies from participating without corresponding benefits. Regulatory regimes that fail to evolve in this manner lead to entrenchment of incumbent industries that rely on “regulatory moats” in order to avoid healthy competition. This static regulatory environment also contributes to many of the antitrust and related concerns that exist with the current centralized Internet. Several jurisdictions have adopted regulatory regimes that account for this dynamic reality and use a tiered approach whereby the regulatory requirements evolve with the project. For example, both the Cayman Islands and Bermuda have created so-called “sandbox

³ Miles Jennings & David Kerr, a16z, *A Legal Framework for Decentralized Autonomous Organizations*, <https://a16z.com/tag/legal-frameworks-for-daos-series/>.

licenses” that provide greater flexibility and less burdensome obligations for certain startups, while still mitigating risks.⁴ Some U.S. states have also sought to create sandbox-type licenses, but with limited success due to poor implementation and given the intersection of those licensing regimes with other federal laws.⁵ In addition, the U.K. Financial Conduct Authority has also used sandboxes in the context of enabling emerging technology.⁶

These flexible approaches are particularly critical with respect to blockchain technology, which is, by design, fluid. Blockchain is a unique technology in that developers launch blockchain projects with the expectation that a community will drive the project, and that its evolution will be driven by community participation, rather than an individual or entity acting in its own self-interest. The projects change considerably with respect to the level of control exerted over the project by the creators and other early backers (i.e., the projects move from being centralized or partly centralized to decentralized in nature). Indeed, the Securities and Exchange Commission’s (“SEC”) former Director of the Division of Corporation Finance recognized as much in a 2018 speech noting, “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.”⁷ Other regulators and members of Congress have also recognized this reality in a variety of proposals including the RFIA’s treatment of “ancillary assets,” the DCEA’s treatment of “digital commodity presales,” and SEC Commissioner Hester Peirce’s token safe harbor.⁸ If the U.S. instead continues to seek to apply regulation designed for centralized entities and systems with intermediaries to the web3 industry, the most likely result is that we will end up

⁴ Bermuda Monetary Authority, Class M License; Virtual Asset (Service Provider) Law, 2020, Sandbox License.

⁵ See, e.g., 23 NYCRR 200.4(c).

⁶ See also Hester M. Peirce, Commissioner, SEC, *Token Safe Harbor Proposal 2.0* (Apr. 13, 2021), <https://www.sec.gov/news/publicstatement/peirce-statement-token-safe-harbor-proposal-2.0>.

⁷ William Hinman, Director, Division of Corporation Finance, SEC, *Digital Asset Transactions: When Howey Met Gary (Plastic)* (June 14, 2018), <https://www.sec.gov/news/speech/speech-hinman061418>.

⁸ RFIA, S. 4356, 117th Congress (2022), Section 301; DCEA, 117th Congress (2022), Section 2(f)(3)(D)(iii); Hester M. Peirce, Commissioner, SEC, *Token Safe Harbor Proposal 2.0* (Apr. 13, 2021), <https://www.sec.gov/news/publicstatement/peirce-statement-token-safe-harbor-proposal-2.0>.

with another centralized internet onshore, with the most important decentralized innovations taking place offshore.

Congress has taken significant, positive steps forward through the introduction of the above-referenced legislation, but we recognize that passing such legislation is difficult and believe it will require active, vocal support from the administration. We encourage Treasury and the administration to engage with Congress on this and make clear its support for a comprehensive legislative framework meeting the goals articulated above.

III. Adoption, Use Cases, and Future Opportunities (Questions 1-3)

a. Who Uses Digital Assets?

Use of digital assets and other web3 applications is becoming increasingly popular in the U.S. and around the world. According to a recent study, 86% of U.S. adults have heard of cryptocurrency, and 16% of Americans have invested in, traded, or otherwise used cryptocurrency.⁹ Among younger Americans that number is significantly higher with nearly 1 in 3 Americans between the ages of 18 to 29 using cryptocurrency.¹⁰ Notably, cryptocurrency use spans socioeconomic status and racial and ethnic groups. According to data from Pew, 17% of upper- and middle-income people have used cryptocurrency, and 15% of lower-income people have.¹¹ According to recent research from the University of Chicago, 44% of cryptocurrency traders were persons of color as compared to just 35% of investors in the traditional stock

⁹ Pew Research Center, Andrew Perrin, *16% of Americans say they have ever invested in, traded or used cryptocurrency* (Nov. 11, 2021), <https://www.pewresearch.org/fact-tank/2021/11/11/16-of-americans-say-they-have-ever-invested-in-traded-or-used-cryptocurrency/>.

¹⁰ *Id.*

¹¹ *Id.*

market.¹² A recent Harris Poll found that 30% of Black Americans and 27% of Hispanic Americans owned cryptocurrency as compared to just 17% of White Americans.¹³ As described further in Section VI, we believe this is a direct reflection of blockchain technology being intentionally designed to put control in the hands of users. Users are not dependent on a centralized institution that may have institutional biases or requirements that disadvantage certain groups. Instead, anyone with an Internet connection can directly access, custody, and transfer digital assets.

Digital asset use is also becoming commonplace for businesses across a wide swath of the U.S. economy. More than 2,000 businesses have at some point announced that they will accept crypto for payment, including large companies such as Microsoft, Overstock, Whole Foods, Etsy, Starbucks, and Home Depot, among others. Nearly all of the major U.S. payments companies, including PayPal, Square, and Stripe, among others, offer at least some cryptocurrency payment functionality directly or through subsidiaries.

Outside of the payments space, blockchain technology is being used for a wide range of applications such as cyber security, enterprise uses, collectibles and other uses of NFTs, gaming, and digital identity, among others, as described below:

- **Identity Management:** Blockchain companies such as Spruce and Peer Mountain currently offer solutions such as identity and access management, device lifecycle management, remote access, and more. These solutions not only offer significant benefits to industry, but also promise to help fulfill important U.S. government goals, such as those explored during the Digital Identity Tech Sprint held by the Federal Deposit Insurance Corporation (“**FDIC**”) and the Financial Crimes Enforcement Network

¹² Kori Hale, *Why Black Investors Seemingly Prefer Cryptocurrencies Over Traditional Stocks*, Forbes (Aug. 10, 2021), <https://www.forbes.com/sites/korihale/2021/08/10/why-black-investors-seemingly-prefer-cryptocurrenciesover-traditional-stocks/?sh=30d7c2616839>.

¹³ *Id.*

(“**FinCEN**”) in 2021.¹⁴ a16z strongly agrees with the FDIC that digital identity proofing is “a foundational element to enable digital financial services to function properly”¹⁵ and believes that blockchain-based solutions are well-placed to help achieve that goal.

- **NFTs:** There are already highly publicized and well-developed uses for sports collectibles and works of art, and many other applications for significant markets are emerging. For example, OpenSea, the world’s largest NFT trading platform offers NFTs across the following categories: domain names, music, photography, sports, trading cards, art, collectibles, utility, and virtual worlds.¹⁶ Royal is currently beta-testing a platform that uses NFTs to help musicians sell royalty ownership in their songs and give collectors access to special benefits. Sound.xyz uses NFTs to help artists launch listening parties for new song releases and more closely connect with their fans who can support them, inscribe a public comment on a song, and engage with the artist and other fans.¹⁷ Dapper Labs has revolutionized sports trading cards with products such as NBA Top Shot, NFL All Day, and UFC Strike. NFTs will have additional powerful future use cases that are just beginning to emerge, including use of NFTs to manage a vast array of unique assets (e.g. real property deeds, stock certificates, etc.) more efficiently and effectively.
- **Enterprise:** Enterprise blockchain uses are rapidly growing for applications such as supply chain integrity, supply chain management, interbank transfers, and trade finance. Blockchain startups, such as Everledger, as well as more established companies, such as

¹⁴ FDIC, Financial Institution Letter, FIL-04-2022, FDIC and FinCEN Launch Digital Identity Tech Sprint (Jan. 11, 2021), <https://www.fdic.gov/news/financial-institution-letters/2022/fil22004.html>.

¹⁵ *Id.*

¹⁶ OpenSea, OpenSea.io (last visited, June 25, 2022).

¹⁷ web3 platforms have drastically lower take-rates than web2 giants. See Chris Dixon et al., *a16z, Introducing the 2022 State of Crypto Report*, Slide Nos. 39 and 40, <https://a16zcrypto.com/state-of-crypto-report-a16z-2022/>.

IBM,¹⁸ Maersk,¹⁹ Walmart,²⁰ J.P. Morgan,²¹ and others are leading these developments. For example, J.P. Morgan has launched the “JPM Coin,” which it describes as a system “that serves as a payment rail and deposit account ledger, that allows participating J.P. Morgan clients to transfer U.S. dollars held on deposit with J.P. Morgan within the system, facilitating the movement of liquidity funding and payments in right time.”²²

- **Online Gaming:** Digital assets have also become key components of the online gaming world, which has an estimated total market cap of between \$20 and \$60 billion.²³ Many of today’s most popular games are closely intertwined with digital assets. For example, League of Kingdoms allows users to claim ownership of virtual land using NFTs, earn cryptocurrency rewards, and participate in management of the game via governance tokens. Yield Guild has created an online community of players who regularly play together and collaborate for mutual benefit by coordinating between players around the world to earn crypto-based rewards in play-to-earn games. Moreover, consumers spend billions of dollars on in-game purchases, which cannot be ported to other games, and if the platform changes or goes out of business, that value is lost forever.²⁴ NFTs have the potential to address this current limitation and return power (and economic value) into the hands of the consumer.
- **Environment:** Critically, in light of environmental concerns raised by some regarding blockchain technology, a number of blockchain companies are now focused on solving

¹⁸ IBM, *IBM Blockchain Platform*, <https://www.ibm.com/cloud/blockchain-platform> (last visited, June 27, 2022).

¹⁹ Maersk, *TradeLens*, <https://www.maersk.com/apa-tradelens> (last visited, June 27, 2022).

²⁰ Michael Corkery & Nathaniel Popper, N.Y. Times, *From Farm to Blockchain: Walmart Tracks Its Lettuce* (Sep. 24, 2018), <https://www.nytimes.com/2018/09/24/business/walmart-blockchain-lettuce.html>.

²¹ J.P. Morgan, *About Coin Systems*, <https://www.jpmorgan.com/onyx/coin-system.htm> (last visited, July 2, 2022).

²² *Id.*

²³ William Wi & Henry Hon, *Crypto.com, GameFi: Past, Present, and Future*, https://content-hub-static.crypto.com/wp-content/uploads/2022/03/GameFi_Past-Present-and-Future_Overview-with-Comparisons-to-Traditional-Gaming-Industry-2.pdf.

²⁴ PYMNTS.com, *PYMNTS NFT Series: Gaming NFTs Don’t Just Have Value, They Have An Economy* (Jan. 6, 2022),

<https://www.pymnts.com/nfts/2022/pymnts-nft-series-gaming-nfts-dont-just-have-value-they-have-an-economy/>.

environmental harm, including broader “off-chain” concerns around climate change. For example, Flowcarbon is a blockchain platform for the trading of voluntary carbon offsets. More specifically, off-chain carbon credits are tokenized into GCO2 tokens that are unique to each project and vintage year from which the credits are sourced. GCO2s are then added to a bundle with other GCO2s that have similar characteristics, and a fungible GNT token is minted from the bundle. Another example is the Celo blockchain, which is a carbon negative blockchain. Celo contributes daily offsets through the network protocol, making the operational resources powering the Celo platform carbon-negative from the outset. To date, Celo has offset 2,285 tons of carbon and expects additional funds already set aside by the protocol to offset a further 4,696 tons.²⁵

- **Wireless Networks:** Blockchain technology is making inroads into the Internet of Things (“IoT”) industry. Helium, for example, is an open-source blockchain-powered wireless service that provides long-range internet connection to IoT devices, such as smart devices, anywhere in the world without the need for satellite location hardware or expensive cellular plans.²⁶ Helium works by allowing any individual to deploy Hotspots on the network and then leveraging the network of individually-owned Hotspots to provide internet connection to IoT devices. In return, Hotspot operators earn Helium’s native HNT coins for providing coverage and transferring data on the network. Consumers on the Helium network pay only based on actual data usage, which is a fraction of the cost of traditional cellular data. There are nearly 1,000,000 Hotspots on the network now, with more than 181 countries and more than 70,000 cities represented.²⁷
- **Media and Content Creation:** web3 content-sharing platforms empower content creators, i.e., artists, influencers, digital creators, gamers, journalists, and others, by providing them with new ways to monetize intellectual property and get rewarded for

²⁵ Celo Foundation, *A Carbon Negative Blockchain? It’s Here and it’s Celo*, Medium (May 26, 2021), <https://medium.com/celoorg/a-carbon-negative-blockchain-its-here-and-it-s-celo-60228de36490>.

²⁶ Andrew Thompson, *Introducing the Helium Blockchain*, The Helium Blog (May 10, 2018), <https://blog.helium.com/introducing-the-helium-blockchain-dc2f8997083c>.

²⁷ Helium, Hotspots, <https://explorer.helium.com/hotspots>.

their work. Most importantly, blockchain technology allows content creators to cut out commercial middlemen, such as social media platforms, stores, curators, broadcasters, etc., that demand large portions of total sales profits. Numerous content creators have already started to utilize blockchain and web3 technology. For example, Arpeggi is an in-browser digital audio workstation where users can compose and mint their own songs directly to the blockchain network. Royal and Sound.xyz, mentioned above, are also examples of web3 content creation projects. Content creators have also benefited from the DAO structure, including Story DAO and Creator DAO, which are collective spaces for creators to work in an autonomous and decentralized manner.²⁸ With the development of the Metaverse, we expect far more media and content creator use cases to continue to arise.

- **Data Storage:** Finally, a decentralized storage network (“DSN”) offers solutions to issues associated with centralized cloud storage platforms, such as malicious attacks and hacks, privacy concerns, and significant costs. DSNs are secure, and without the significant overhead costs of centralized storage, cheaper. Perhaps most importantly, DSNs are also censorship resistant. For example, Arweave, a popular DSN, allows users to preserve valuable information, apps, and history indefinitely for a single up-front price. As described further in Section III(c)(ii), people living under oppressive regimes have used Arweave to store and preserve documents, and the current Ukraine-Russia archive is Arweave’s biggest collection to date.²⁹ The promise of web3 permanent data storage could be an important resource for others seeking to store vital information as well (e.g., birth certificates, legal contracts, etc.).

These use cases are only the start of web3, as we are already seeing a new generation of companies offer products like online maps and GPS navigation, social media, cloud computing

²⁸ E.g., ADIM, ARpeggi, Royal, Sound.xyz, StoryDAO, CreatorDAO, and Tally Labs.

²⁹ Hannah Miller, Bloomberg, Crypto Network Promises Hack-Proof History of Ukraine Attack, Bloomberg (Feb. 25, 2022),

<https://www.bloomberg.com/news/articles/2022-02-25/ukraine-invasion-videos-amass-on-crypto-data-storage-network?sref=rAbB2JNU>.

and storage, spam filters, online document creation and storage, and domain name purchases and management, among many other solutions.

b. What are the Emerging and Future Use Cases?

In addition to the numerous current use cases, summarized above, blockchain technology holds significant promise for new, future use cases, particularly in web3 and the metaverse, where such technology is just beginning to demonstrate its benefits.

In particular, blockchain technology can help ameliorate many of the most challenging aspects of today's current technology environment. The current Internet is driven by a business model characterized by data collection and the monetization through an advertising model dominated by a handful of financially successful platforms. Although this has produced some tangible economic benefits, the limitations of this data exploitation model have become more and more apparent in recent years. It has raised significant concerns about consumer privacy as well as potentially providing centralized companies or authoritarian regimes a basis for social control that undermines the open and democratic values upon which the Internet was originally founded. These limitations have been widely recognized throughout the Biden administration and in Congress. For example, on July 9, 2021, President Biden issued Executive Order 14036 (Promoting Competition in the American Economy), which noted:

The American information technology sector has long been an engine of innovation and growth, but today a small number of dominant internet platforms use their power to exclude market entrants, to extract monopoly profits, and to gather intimate personal information that they can exploit for their own advantage. Too many small businesses across the economy depend on those platforms and a few online marketplaces for their survival. And too many local

*newspapers have shuttered or downsized, in part due to the internet platforms' dominance in advertising markets.*³⁰

It adds that the administration “will enforce the antitrust laws to meet the challenges posed by ... the rise of the dominant Internet platforms, especially as they stem from serial mergers, the acquisition of nascent competitors, the aggregation of data, unfair competition in attention markets, the surveillance of users, and the presence of network effects.”³¹

President Biden has also specifically addressed the harm that the current ad-based revenue model of many large tech companies causes to American children. In his State of the Union Speech on March 1, 2022, President Biden stated, “we must hold social media platforms accountable for the national experiment they’re conducting on our children for profit,” and added, “It’s time to strengthen privacy protections, ban targeted advertising to children, demand tech companies stop collecting personal data on our children.”³²

a16z believes that the development of web3 based on blockchain technology is ideal for solving these challenges. By design, blockchains empower individual users by giving them control over their assets, their intellectual property, and their personal information. For the first time since the earliest days of the Internet, with web3, users also have a voice in the governance of underlying technology protocols.

An appropriately tailored regulatory regime will contribute to further innovation in the blockchain sector, including with respect to foundational technologies that can make web3 and blockchain-based systems more efficient and secure. Such continued innovation will help

³⁰ EO 14036: Executive Order on Promoting Competition in the American Economy, 86 Fed. Reg. 36987 (July 9, 2021), Section 1.

³¹ *Id.*

³² The White House, *Remarks of President Joe Biden – State of the Union Address As Prepared for Delivery* (Mar. 1, 2022),

<https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/03/01/remarks-of-president-joe-biden-state-of-the-union-address-as-delivered/>.

mitigate environmental concerns, ensure the safekeeping of customer assets, and speed the development of web3 projects that address some of the limitations of the current Internet. Uncertain regulatory regimes stifle this innovation by disincentivizing entrepreneurs to invest in research and development because they are unsure if their efforts will ultimately lead to viable products under future laws or future interpretations of existing laws.

Finally, it is worth noting that 87 countries (more than 90% of the world's GDP) have explored or are currently exploring the issuance of a digital currency. Unfortunately, U.S. adversaries, such as China, lead many of the most developed projects of this nature (see further discussion in Section III(D)). This type of emerging use case highlights the importance of the United States playing a leading role and promoting private sector solutions over government-led projects that China and other authoritarian regimes support.

c. What are the Primary Benefits from Digital Assets?

As noted above, digital assets and blockchain technology are used by a wide swath of the American public in numerous different contexts. While it is difficult to summarize the benefits of such technology in a response of this nature, we believe several of the most important benefits include: (1) cheaper and faster cross-border transactions; (2) protection against oppressive regimes; (3) empowering consumers by facilitating ownership of their own assets; (4) reducing costs and risks associated with a range of financial products;³³ and (5) improved supply chain management and efficiency.

³³ Smart contracts create transparency and certainty for financial products that have not previously existed, especially with respect to complex derivatives. For example, blockchains and web3 may have allowed the government and industry to more clearly understand the risks to individual financial institutions and potential systemic risk during the 2008 financial crisis.

i. Cross-Border Transactions

Cross-border payments were one of the first blockchain use cases to emerge. Blockchain transactions can greatly reduce the cost and improve the speed of peer-to-peer remittance cash flows. The U.S. is the world's largest remittance-sending country, sending over \$70 billion in 2019.³⁴ The cost of sending such payments remains quite high, particularly in emerging markets. According to the World Bank, the average remittance payment involved a 6.3% cost and in Sub-Saharan Africa that number was even higher at 8.7%.³⁵ Traditional banks are the most expensive remittance providers with an average cost of 10.64%. On the other hand, “digital remittances” had the lowest average cost of 4.99%.³⁶ The World Bank defines a “digital remittance” to include a remittance “sent via a payment instrument in an online or self-assisted manner, and received into a transaction account, i.e., bank account, transaction account maintained at a non-bank deposit taking institution (say a post office), mobile money or e-money account.”³⁷ Traditional remittance services are also quite slow. For example, Western Union states that international money transfers will typically be completed in one to five business days.³⁸ Given these numbers, it is no surprise that more and more remittance senders are turning to digital assets. According to research from PYMNTS.com, 23% of respondents that made online remittance payments used at least one form of cryptocurrency and 13% said that cryptocurrency was their preferred method for making such payments.³⁹ According to

³⁴ Dany Bahar, Brookings Institution, *Remittances: One more thing that economists failed at predicting during COVID-19* (July 1, 2021), <https://www.brookings.edu/blog/future-development/2021/07/01/remittances-one-more-thing-that-economists-failed-at-predicting-during-covid-19/>.

³⁵ The World Bank Group, *Remittance Prices Worldwide* (June 2021), https://remittanceprices.worldbank.org/sites/default/files/rpw_main_report_and_annex_q221.pdf.

³⁶ *Id.*

³⁷ *Id.*

³⁸ Christy Lowry, Western Union, *How long do money transfers take?* (Apr. 1, 2021), <https://www.westernunion.com/blog/en/us-how-long-does-money-transfer-take/#:~:text=Domestic%20money%20transfers%20are%20typically,ultimately%20depends%20on%20several%20factors>.

³⁹ PYMNTS.com, *New Data: Almost 25% of US Cross-Border Remittance Senders Use Crypto* (Sep. 24, 2021), <https://www.pymnts.com/news/cross-border-commerce/cross-border-payments/2021/new-data-25-percent-united-states-cross-border-remittance-senders-use-cryptocurrency/>.

blockchain analytics firm Chainalysis, “\$562 million worth of cryptocurrency was transferred directly from overseas addresses to ones based in Africa in retail sized payments,” in the year 2020.⁴⁰ The speed and cost of a digital asset transaction varies depending on the blockchain in question, and almost all digital asset transactions are faster and cheaper than the traditional fiat options.

ii. Protection Against Oppressive Regimes

Digital assets and web3 applications are becoming increasingly popular in countries with oppressive regimes because the technology allows dissidents, journalists, and others to transact, communicate, and engage in activities without risking punishment from authorities. It is no coincidence that cryptocurrency penetration is particularly high in many authoritarian regimes such as Russia (11.91%) and Venezuela (10.34%).⁴¹ It is also no coincidence that these same types of authoritarian regimes have sought to crackdown on the use of blockchain technology, which they view as a threat to their power. For example, China recently banned the use of cryptocurrencies other than its government-backed digital yuan (commonly referred to as the “e-CNY”).⁴² Cuba has also sought to crack down on cryptocurrency exchanges operating in the country,⁴³ and the Venezuelan government recently approved new legislation imposing a tax of up to 20% on cryptocurrency transactions.⁴⁴

The benefits of blockchain technology extend far beyond payments. For example, community-owned and operated Arweave is using blockchain enabled networks to archive millions of documents from Ukraine, thereby generating immutable historical records of the

⁴⁰ Chainalysis, *Remittances and Fiat Currency Devaluation Drive Africa’s Growing Cryptocurrency Economy, and Big Exchanges Recognize the Opportunity* (Sep. 8, 2020), <https://blog.chainalysis.com/reports/africa-cryptocurrency-market-2020/>.

⁴¹ *Cryptocurrency across the world*, Triple A, <https://triple-a.io/crypto-ownership/>.

⁴² BBC News, *China declares all crypto-currency transactions illegal* (Sept. 24, 2021), <https://www.bbc.com/news/technology-58678907>. The Chinese government is also backing and promoting the Blockchain-based Service Network (the “BSN”) for various enterprise use cases.

⁴³ The Economist, *Cuba’s communist regime is trying to control crypto* (Oct. 30, 2021), <https://www.economist.com/the-americas/2021/10/30/cubas-communist-regime-is-trying-to-control-crypto>.

⁴⁴ Helen Partz, *Venezuelans reportedly hit by new Bitcoin tax of up to 20%*, Cointelegraph (Aug. 3, 2022), <https://cointelegraph.com/news/venezuelans-reportedly-hit-by-new-bitcoin-tax-of-up-to-20>.

human rights abuses and war crimes being committed by Russia.⁴⁵ Arweave has also been used in Hong Kong to preserve articles from Apple Daily, a pro-democracy newspaper in the city that the authorities had recently shut down. A number of censorship-resistant blockchain-based messaging applications are also gaining popularity, particularly in jurisdictions that do not respect freedom of speech.

We believe that blockchain technology and web3 applications can play, and are currently playing, a critical role in promoting important U.S. foreign policy and national security goals by giving dissidents, informants, activists, journalists, and others tools to carry out their important work in a manner that cannot easily be prevented or disrupted by authoritarian regimes. We encourage Treasury and the administration broadly to place these tools at the center of its foreign policy and national security strategy when confronting America's adversaries.

iii. Empowering Consumers by Facilitating Control

By their very nature, blockchains empower individual users by giving them control over their assets, intellectual property, and personal information and giving them a voice in the governance of underlying technology protocols. This has a wide range of positive effects.

First, blockchain technology promotes financial inclusion and reduces discrimination in the financial industry by eliminating the need for consumers to interact with legacy financial institutions that may have institutional biases or barriers to entry for certain communities. See Section VI for additional detail on this topic.

Second, it has the potential to address problems arising from the advertising based data exploitation model that characterizes the current Internet. By giving users control over their data, blockchain can shift these economic incentives and empower users.

Third, it supports users' privacy by, in many instances, obviating the need for users to turn over personal data to centralized institutions with varying degrees of privacy protections. The American public is becoming increasingly concerned with online privacy issues. For example, a

⁴⁵ Hannah Miller, *Crypto Network Promises Hack-Proof History of Ukraine Attack*, Bloomberg (Feb. 25, 2022), <https://www.bloomberg.com/news/articles/2022-02-25/ukraine-invasion-videos-amass-on-crypto-data-storage-network?sref=rAbB2JNU>.

2019 Pew study found that 81% of respondents felt they had little or no control over the data that companies collect about them, and 79% reported they were very or somewhat concerned about how that data was used.⁴⁶ Another 79% reported they had little or no confidence that companies will admit mistakes and take responsibility for data breaches or misuses, and 70% of respondents believed their data is less secure than it was five years ago.⁴⁷ Blockchain technology can play a significant role in ameliorating such privacy issues by allowing users to interact directly with protocols and through emerging technologies such as digital identity, where users can be identified while having control over the amount of data shared with third parties.

iv. Improved Supply Chain Management

Given the significant ongoing supply chain issues that have led to shortages, delays, and increased prices for all varieties of goods, we believe the power of blockchain technology with respect to supply chain management is particularly important. As noted above, a wide range of companies, including startups and established giants, are using blockchain technology to assist in supply chain management. Everledger, a blockchain startup, offers solutions for industries including art, batteries, critical minerals, diamonds, fashion, gemstones, wine and spirits, and more.⁴⁸ Meanwhile, companies such as FedEx, DeBeers, and Walmart are using blockchain technology in a number of supply chain contexts.⁴⁹ As explained in a recent report from Deloitte, blockchain technology has a number of benefits in the supply chain context, including increasing traceability of materials to ensure corporate standards are met; reducing losses from counterfeit and gray market trading; improving visibility into outsourced contract manufacturing, and reducing paperwork and administrative costs, among others.⁵⁰ While use of blockchain

⁴⁶ Brook Auxier et al., Pew Research Center, *Americans and Privacy: Concerned, Confused and Feeling Lack of Control Over Their Personal Information* (Nov. 15, 2019), <https://www.pewresearch.org/internet/2019/11/15/americans-and-privacy-concerned-confused-and-feeling-lack-of-control-over-their-personal-information/>.

⁴⁷ *Id.*

⁴⁸ Everledger, *Our Industry Solutions*, <https://everledger.io/industry-solutions/> (last visited Aug. 3, 2022).

⁴⁹ Michael Higgins, *Blockchain In Supply Chain*, *Forbes* (Nov. 8, 2021), <https://www.forbes.com/sites/forbestechcouncil/2021/11/08/blockchain-in-supply-chain/?sh=556aab444e1a>.

⁵⁰ Deloitte, *Using blockchain to drive supply chain transparency*, <https://www2.deloitte.com/us/en/pages/operations/articles/blockchain-supply-chain-innovation.html> (last visited Aug. 3, 2022).

technology cannot resolve all of the supply chain issues currently facing the country, we believe it has an important role to play and remains an underutilized tool for ameliorating the ongoing supply chain issues.

d. Foreign Competition and National Security Considerations

We believe the biggest threat to security in the blockchain space is the possibility that U.S. adversaries offering state-backed solutions, such as China’s digital yuan or the BSN, will become dominant in the international blockchain ecosystem. Use of the digital yuan is rapidly increasing, in large part due to China’s crackdown on privately created blockchains over which the Chinese government cannot assert control. While China is the most advanced in terms of its government-backed blockchain solutions, other governments such as Russia, Iran, and Venezuela have either already developed their own digital asset or are actively working on creating one.

These government-backed protocols present a significant threat to national security as they are likely to provide the associated foreign government with access to personally identifiable information, sensitive financial data, and data on shipping and cargo flows (for enterprise blockchains and, potentially, payment blockchains), to name just a few areas of concern. These are precisely the types of national security risks that have motivated recent changes in U.S. law, such as the Foreign Investment Risk Review Modernization Act’s expansion of the Committee on Foreign Investment in the U.S.’s authority over transactions involving sensitive personal data,⁵¹ as well as the Commerce Department’s recently issued regulations on securing the information and communication technology and services supply chain.⁵² In addition, some of these government-backed protocols have been designed, at least in part, as a tool to skirt U.S. sanctions and anti-money laundering controls.

Digital assets are also a critical tool in jurisdictions in which the traditional financial system has fallen apart or become inoperable. For example, digital asset donations have played a role in

⁵¹ Foreign Investment Risk Review Modernization Act of 2018, Section 1703(a)(4)(iii)(III).

⁵² 15 C.F.R. Part 7.

helping the Ukrainian government access foreign funds for military and humanitarian purposes. After Russia’s invasion of Ukraine earlier this year, the Ukrainian government, in partnership with several blockchain companies, created Aid for Ukraine to allow foreign donors to easily contribute digital assets to the Ukrainian government.⁵³ Ukraine’s Deputy Minister for Digital Transformation, Alex Bornyakov, explained that digital assets have been “more impactful than the traditional financial system because we managed to use this fund almost right away and quickly purchase things that were so much required for our war efforts, and humanitarian efforts.”⁵⁴

Digital assets have also played a key role in allowing ordinary Ukrainian citizens to engage in transactions during the war, particularly where they have been cut off from the traditional banking system. Shortly after Russia’s invasion, the National Bank of Ukraine placed restrictions on cash withdrawals and many ATMs ran out of money.⁵⁵ While Ukraine’s traditional financial system continues to struggle, digital assets provide much needed liquidity to the Ukrainian economy.⁵⁶

⁵³ Zhiyuan Sun, *Vitalik Buterin quietly donates \$5M ETH to aid Ukraine as total tracked crypto donations reach \$133M*, Cointelegraph (Apr. 7, 2022), <https://cointelegraph.com/news/vitalik-buterin-quietly-donates-5m-eth-to-aid-ukraine-as-total-tracked-crypto-donations-reach-133m>.

⁵⁴ Roundtable Editor, *Exclusive: Ukrainian Deputy Minister Makes Live Appeal to World Crypto Community* (Apr. 8, 2022), <https://roundtable.io/news-causes/exclusive-ukrainian-deputy-minister-makes-live-appeal-to-world-crypto-community>.

⁵⁵ David Attlee, *‘I’ve never paid with crypto before’: How digital assets make a difference amid a war*, Cointelegraph (Apr. 9, 2022), <https://cointelegraph.com/news/i-ve-never-paid-with-crypto-before-how-digital-assets-make-a-difference-amid-a-war>.

⁵⁶ Illia Polosukhin, *How Cryptocurrency is Helping Ukraine*, Wall St. J. (Mar. 23, 2022), <https://www.wsj.com/articles/how-crypto-is-helping-ukraine-russia-currency-donations-transfer-infrastructure-11648065166>.

IV. Impediments to Further Adoption

a. Absence of Clear and Workable Legislative and Regulatory Regime

While a comprehensive summary of existing U.S. regulatory issues relating to the blockchain industry is beyond the scope of this letter, we offer a few examples to demonstrate the difficult choices that developers and entrepreneurs face when trying to launch new blockchain projects in the U.S.

Perhaps the most discussed example of regulatory uncertainty is with respect to the status of certain digital assets under U.S. securities law and whether such assets constitute an “investment contract” under the Supreme Court’s 1946 ruling in *SEC v. W.J. Howey Co.*⁵⁷ Not surprisingly, a legal test developed in 1946 for contracts related to orange groves, decided decades before the Internet existed, serves quite poorly when applied to blockchain technology. SEC leadership has indicated its belief that many digital assets are securities under *Howey* but has issued no new guidance since 2019 and instead relied largely on enforcement actions to articulate its views.⁵⁸

The guidance the SEC has offered has been helpful to industry, but it is limited and, in some respects, outdated. For example, in April 2019, the SEC published its *Framework for “Investment Contract” Analysis of Digital Assets*, which the SEC described as a means to “provide a framework for analyzing whether a digital asset has the characteristics of” an investment contract.⁵⁹ The Framework lists over 60 different factors that the SEC will consider and weigh when analyzing whether a given digital asset is an investment contract. This Framework, which effectively amounts to a 60-part balancing test, is difficult for industry to

⁵⁷ *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

⁵⁸ See, e.g., Securities Act Release No. 11060, Exchange Act No. 94858 (May 6, 2022); Securities Act Release No. 11029; Investment Company Act No. 34503 (Feb. 14, 2022); Securities Act Release No. 10961; Exchange Act Release No. 92588 (Aug. 6, 2021).

⁵⁹ SEC, *Framework for “Investment Contract” Analysis of Digital Assets* (Apr. 3, 2019), https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets#_edn5.

effectively use, leaving many projects with the choice of operating without regulatory certainty or launching outside the U.S.

Other SEC actions have similarly contributed to uncertainty among industry participants. For example, the current SEC Chair has noted on several occasions that many digital asset trading platforms have listed securities and should register with SEC,⁶⁰ but the SEC has not provided any guidance on how an exchange would register or operate under SEC rules. This leaves well-intentioned companies without a clear path forward and generates uneven competitive effects. Similarly, SEC staff issued Staff Accounting Bulletin 121 on the custody of digital assets, but left open many questions and exacerbated others, such as treatment of custodied digital assets in a bankruptcy of the custodian.⁶¹

More recently, on July 21, 2022, the SEC brought an action based on insider trading allegations against a former Coinbase product manager and two others for trading ahead of certain announcements that Coinbase would list a given crypto asset on the platform.⁶² The SEC alleged that this conduct occurred with respect to at least 25 digital assets, “at least nine” of which the SEC asserted are investment contracts under the federal securities laws. However, the SEC neither named the nine token issuers as parties to the action, nor indicated that all of the tokens were previously subject to investigative action. This type of regulation by enforcement, particularly where the token projects at issue are not even subject to the enforcement, is detrimental to the industry and contributes to the uncertainty that already exists with respect to certain SEC rules.⁶³

⁶⁰ See, e.g., SEC, Chair Gary Gensler, *Prepared Remarks of Gary Gensler On Crypto Markets Penn Law Capital Markets Association Annual Conference* (Apr. 4, 2022), <https://www.sec.gov/news/speech/gensler-remarks-crypto-markets-040422>.

⁶¹ SEC, Staff Accounting Bulletin No. 121 (Apr. 9, 2022), <https://www.sec.gov/oca/staff-accounting-bulletin-121>.

⁶² Complaint, *SEC v. Wahi, et al.*, No. 2:22-cv-01009 (W.D. Wash. July 21, 2022), available at <https://www.sec.gov/litigation/complaints/2022/comp-pr2022-127.pdf>.

⁶³ We note that the Department of Justice has brought a parallel criminal action based on wire fraud, which does not require a showing that any of the digital assets at issue were securities; a16z fully supports this approach based on the facts articulated in this case.

Members of Congress—both Democrat and Republican—have recognized this uncertainty. In announcing the recently introduced RFIA, Senator Kirsten Gillibrand (D-NY) and Senator Cynthia Lummis (R-WY) wrote that a key goal of the bill is to make “a clear distinction between digital assets that are securities and commodities by looking at the purpose of the product being issued and the rights it conveys the consumer,” which will give “digital asset companies the ability to determine what their regulatory obligations will be....”⁶⁴ In addition, because blockchain projects typically design most digital assets to move between holders in a frictionless, peer-to-peer fashion, broad classification of such assets as securities would significantly undermine the viability of such assets by limiting secondary trading liquidity and native functionality.

U.S. tax treatment of digital assets is another commonly cited example of undue regulatory burden. The Internal Revenue Service (the “IRS”) has indicated that “virtual currency” should be treated as property for tax purposes and not as currency. This means that any virtual currency transaction resulting in a realized gain or loss is a taxable event. In other words, consumers purchasing a cup of coffee must pay sales tax on the purchase, but also must assess the transaction to determine if it resulted in a profit or loss on their virtual currency and pay tax accordingly. Such an interpretation clearly presents a significant burden to use of digital assets as payments. Indeed, this is another area that Senators Gillibrand and Lummis address in the RFIA by creating a *de minimis* exemption allowing consumers to make purchases with digital assets without having to account for and report income on each transaction.⁶⁵

Similarly, recent reforms to 26 U.S.C. § 6045 to require filing of an IRS Form 1099 by “brokers” that are “responsible for regularly providing any service effectuating transfers of digital assets on behalf of another person” for transactions over \$10,000 has injected needless uncertainty in the U.S. digital asset legal regime (here the uncertainty was the product of a recent reform rather

⁶⁴ Sen. Kirsten Gillibrand & Sen. Cynthia Lummis, *To maintain America as the financial capital of the world, the federal government needs to encourage innovation in the digital assets markets and protect consumers through thoughtful regulation. Here's how:*, Medium (June 7, 2022),

<https://gillibrandny.medium.com/the-responsible-financial-innovation-act-218a764abd6c>.

⁶⁵ RFIA, S. 4356, 117th Congress (2022).

than a lack of reform as in the cases above). In particular, by using an overly broad definition of broker that could seemingly capture miners, transaction validators, and many others, the legislative reform has generated significant concern among industry. While the IRS recently indicated it would interpret the term “broker” in a narrower fashion, industry should not have to rely on an IRS interpretation when it comes to issues of such significance.⁶⁶

V. General and Specific Risks in the Digital Asset Markets (Questions 4-5)

a. Resiliency in Market Downturns

There has been a lot of recent discussion regarding the viability and solvency of certain blockchain projects given the market downturn and high profile failure of a small number of projects. As with any industry, certain projects will fail and it is important to carefully review those failures, learn from any identified mistakes, and make changes to prevent similar mistakes in the future. With that said, outsized attention paid to the small number of mostly centralized projects that have not survived the recent market downturn has overshadowed a general story of resilience in the blockchain space. That resilience has been particularly true for fully decentralized projects that operate entirely on-chain with high levels of transparency.⁶⁷ For example, lending projects such as AAVE and Compound and stablecoins such as DAI have not experienced any significant issues. The projects that have failed have tended to have at least some off-chain or non-transparent elements.

Indeed, blockchain technology offers several unique features that contribute to the stability of the technology and help prevent runs and contagion. Many projects operate on the basis of overcollateralization to prevent against such risks and use tools such as escrow wallets that can be automatically liquidated when certain parameters are met or when certain events occur.

⁶⁶ Helen Partz, *Crypto miners exempt from IRS reporting rules, U.S. Treasury affirms*, Cointelegraph (Feb. 14, 2022), <https://cointelegraph.com/news/crypto-miners-exempt-from-irs-reporting-rules-us-treasury-affirms>.

⁶⁷ See Miles Jennings, *In defence of stablecoins*, Financial Times (Aug. 8, 2022), <https://www.ft.com/content/39681aa2-aa01-4d60-b399-8ecb236c627e>.

b. Maturing Cyber Security Defenses

It is no secret that many blockchain projects have suffered from hacks or other cyber attacks over the years. As a result, blockchain companies have invested significant sums of money into cybersecurity defenses in recent years, and many platforms, particularly those custodial assets, have robust defenses that are among the strongest in any industry. We believe that the government has an important role to play in this process as well. With respect to regulatory requirements, we note that certain regimes, such as New York state's BitLicense, already contain cybersecurity requirements.⁶⁸ a16z believes that including cybersecurity principles in any legislative or regulatory framework is a prudent measure, provided any requirements account for the broad range of differences in structure and functionality of blockchain platforms and are not overly burdensome such that they stifle innovation and prohibit new market entries.

It is also important to note that blockchain technology creates unique opportunities for law enforcement to track cyber criminals and recover stolen funds in ways that are simply not possible in the fiat context. For example, in February 2022, the Department of Justice seized \$3.6 billion in stolen cryptocurrency linked to the 2016 hack of a digital asset platform and arrested two individuals in connection with that crime.⁶⁹ Similarly, in June 2021, the Department of Justice seized approximately \$2.3 million in digital assets paid in ransom by Colonial Pipeline.⁷⁰ a16z believes that arrests and asset recoveries of this nature will only become more common as various blockchain analytic tools increase in sophistication and law enforcement

⁶⁸ 23 CRR-NY 200.16.

⁶⁹ U.S. Dep't of Justice, Press Release, *Two Arrested for Alleged Conspiracy to Launder \$4.5 Billion in Stolen Cryptocurrency* (Feb. 8, 2022), <https://www.justice.gov/opa/pr/two-arrested-alleged-conspiracy-launder-45-billion-stolen-cryptocurrency>.

⁷⁰ U.S. Dep't of Justice, Press Release, *Department of Justice Seizes \$2.3 Million in Cryptocurrency Paid to the Ransomware Extortionists Darkside* (June 7, 2021), <https://www.justice.gov/opa/pr/departement-justice-seizes-23-million-cryptocurrency-paid-ransomware-extortionists-darkside>.

becomes more experienced using these tools in conjunction with traditional investigative methods.

In addition, the ability to trace and seize stolen assets using blockchain analysis gives industry a powerful tool to prevent bad actors from being able to use or profit from stolen funds. In particular, most entities that facilitate the exchange of digital assets to fiat currency are subject to anti-money laundering regimes such as the Bank Secrecy Act or its foreign equivalents and have robust blockchain analytics built into their compliance programs.

From a capital markets perspective, blockchains can provide for significant improvements of market surveillance and supervision; the transparency and auditability of these digital assets markets allow regulators to observe and analyze trades and patterns far more efficiently than other markets. The key challenge may be obtaining attribution data for participating parties to the transactions.

c. Uncertain Legal Landscape

We strongly believe that one of the most significant risks facing users of digital assets is the uncertain legal landscape that currently exists for many digital assets and blockchain projects. This uncertainty makes it difficult for users to assess the risks associated with a given asset or project or plan for contingencies should an asset they hold or a project they participate in suddenly be shut down or otherwise be made unavailable. Rather than providing regulatory guidance and clarity, some regulatory agencies are engaging in regulation by enforcement. These types of actions are by definition selective and not industry wide and can dramatically impact the value of a consumer's holdings with no warning to the consumer. While these cases target specific projects, they have a significant and unavoidable impact on the consumers that participate in the targeted projects. This is not to say that enforcement actions are never appropriate. Indeed, a16z strongly supports enforcement actions against persons that have engaged in activity that is illegal or harmful to the market — positively, multiple regulators already possess and have employed such authorities. We simply believe that it is better policy to

regulate through the rule-making process to ensure regulations are appropriately tailored to the innovation's characteristics, balance costs and benefits, and identify acceptable practices while mitigating risks. Selective enforcement actions fail in this regard and consumers are left to worry that the value of their digital asset holdings could significantly diminish overnight because a regulatory agency targeted the project. Guidance and regulatory clarity also benefits consumers in that it helps them assess its risk and identify compliant products.

As noted above, a16z strongly supports legislative efforts that would help create clear and workable rules for industry and give consumers clarity with respect to their activities. We believe the Biden administration should focus on such comprehensive efforts, which are likely to spur industry innovation, as opposed to the more unpredictable and sometimes detrimental regulation by enforcement.

VI. Impact on Vulnerable Populations (Question 6)

a16z is deeply committed to financial inclusion and proud that many of its portfolio companies are leading the way with respect to innovative blockchain products that are already having a significant impact in promoting financial inclusion in the U.S. and around the world. We are pleased to see the Biden administration has made financial inclusion a priority both in the context of digital assets and more broadly. As President Biden expressed in Executive Order 14067:

The United States has a strong interest in promoting responsible innovation that expands equitable access to financial services, particularly for those Americans underserved by the traditional banking system, including by making investments and domestic and cross-border funds transfers and payments cheaper, faster, and safer, and by promoting greater and more cost-efficient access to financial products and services. The United States also has an interest in ensuring that the

*benefits of financial innovation are enjoyed equitably by all Americans and that any disparate impacts of financial innovation are mitigated.*⁷¹

Secretary Yellen echoed a similar sentiment before the Senate Finance Committee last year telling the Committee, “issues of diversity, inclusion and racial equity are incredibly important, particularly at this moment in history when the pandemic has taken an unbelievable and disproportionate toll on low-income workers and especially people of color.”⁷²

As noted in the Treasury RFC, a 2019 FDIC report found that 5.4% of American households are unbanked, meaning that no one in the household had a checking or savings account at a bank or credit union.⁷³ However, the RFC question did not note that those numbers are significantly higher for communities of color. Among Black American households that number was 13.8% and among Hispanic American households it was 12.2%.⁷⁴

Survey respondents cited a number a number of factors for not having bank accounts, including: not having enough money to meet minimum balance requirements (48.9%), lack of trust in banks (36.3%), a desire to retain privacy (36.0%), high account fees (34.2%), unpredictable account fees (31.3%), personal identification, credit, or former bank account problems (20.5%), banks not offering needed products and services (19.6%), inconvenient bank locations (14.1%), and inconvenient bank hours (13.0%).⁷⁵

Blockchain can help resolve many of these issues by reducing fees, creating faster settlement times (addressing a significant driver of “payday” lending), putting users in charge of their own

⁷¹ EO 14067: Ensuring Responsible Development of Digital Assets, 87 Fed. Reg. 14143 (Mar. 9, 2022), Section 2(e).

⁷² FINANCE COMMITTEE QUESTIONS FOR THE RECORD: Hearing on the Nomination of Dr. Janet Yellen Before the S. Comm. On Fin., 117th Cong. 34 (2021) (Responses by Dr. Yellen).

⁷³ FDIC, How America Banks: Household Use of Banking and Financial Services, at 1 (2020), <https://www.fdic.gov/analysis/household-survey/2019execsum.pdf>.

⁷⁴ *Id.* at 2.

⁷⁵ *Id.* at 3.

finances, helping users maintain privacy, and doing away with bank location/hours issues, among other advantages.

Indeed, communities of color have been turning to blockchain for exactly that reason. As noted above, according to recent research from the University of Chicago, 44% of cryptocurrency traders were persons of color as compared to just 35% of investors in the traditional stock market.⁷⁶ A recent Harris Poll found that 30% of Black Americans and 27% of Hispanic Americans owned cryptocurrency compared to just 17% of White Americans.⁷⁷ We believe this is a direct reflection of blockchain technology's design, which intentionally puts control in users' hands. Users need not depend on a centralized institution that may have institutional biases or requirements that disadvantage certain groups. Instead, anyone with an Internet connection can access, custody, and transfer digital assets directly.

VII. Conclusion

a16z greatly appreciates the opportunity to provide comments on these important matters. We believe it is critically important that the United States is the leader when it comes to blockchain technology, which we believe is rapidly becoming a key pillar of the international financial system. Without U.S. leadership, we are concerned that adversaries, like China, Russia, Iran, and Venezuela, who are actively working on competing systems that would take control away from individual users and give it to those governments, may fill the leadership void. We believe the U.S. can most effectively meet this challenge by promoting the U.S. blockchain industry, including through the creation of a clear and workable legal framework, and by pushing for greater international coordination to ensure an even playing field for U.S. companies.

⁷⁶ Kori Hale, *Why Black Investors Seemingly Prefer Cryptocurrencies Over Traditional Stocks*, Forbes (Aug. 10, 2021), <https://www.forbes.com/sites/korihale/2021/08/10/why-black-investors-seemingly-prefer-cryptocurrencies-over-traditional-stocks/?sh=30d7c2616839>.

⁷⁷ *Id.*

We would be pleased to provide any additional information that may be helpful to the Department of the Treasury as it considers these important matters.

Respectfully submitted,

Jai Ramaswamy, Chief Legal Officer
a16z

Scott Walker, Chief Compliance Officer
a16z

Michele R. Korver, Head of Regulatory
a16z Crypto

Miles Jennings, General Counsel
a16z Crypto