

July 5, 2022

Ms. Diane Farrell, Deputy Under Secretary for International Trade  
U.S. Department of Commerce  
1401 Constitution Avenue NW  
Washington, DC 20230

Delivered via regulations.gov

**Re: Notice and Request for Comment on Developing a Framework on Competitiveness of Digital Asset Technologies**

Dear Deputy Under Secretary Farrell:

Andreessen Horowitz (“a16z”) appreciates the opportunity to respond to the Department of Commerce’s request for comment entitled “Developing a Framework on Competitiveness of Digital Asset Technologies” published on May 19, 2022 (the “RFC”). We support the Department of Commerce’s important goal of “enhancing U.S. economic competitiveness in, and leveraging of, digital asset technologies.” 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....”

Many of the earliest and most successful blockchain projects originated from or had close ties to the United States, but today there is increased competition from actors around the world, including both privately launched projects and projects backed by foreign governments, some of whom are unfriendly to the United States. 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. Fortunately, a16z believes 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 Commerce and other U.S. government agencies have a critical role to play in creating an environment that encourages responsible innovation and ensures the United States remains at the forefront of the international financial system. In short, we believe that blockchain and web3 technology are poised to fundamentally change the Internet and the international financial system and that it is critical for American business, jobs, and national security that the United States leads the way.

## **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 help our portfolio companies grow their business, 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 United States 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 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. Competitiveness

### Responses to Questions 1-5, 9, and 10:

#### a. Current Use Cases

While the digital asset industry is continuing to develop, there is already a wide range of use cases including activities such as payments, cyber security, enterprise uses, collectibles and other uses of non-fungible tokens (“NFTs”), gaming, and digital identity, among others. Digital assets are sometimes maligned as being primarily used for speculative trading or illicit activity, but that label significantly shortchanges digital assets’ potential and their current use-case reality.

Many U.S. companies including Microsoft, Overstock, Whole Foods, Etsy, Starbucks, and Home Depot, among others, now accept cryptocurrency as payment for goods or services. 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. Cryptocurrency

payments are often faster, cheaper, and easier, particularly for disadvantaged communities that are underbanked or unbanked. According to a report published by PYMNTS.com in April of 2022, in the 30 days prior to the report’s publication, 16.1 million Americans used cryptocurrency to make an online purchase and 7.1 million Americans used cryptocurrency to make an in-store purchase.<sup>1</sup>

Blockchain technology can also help enhance cyber security and use digital identity technology to promote a safe and secure Internet. Blockchain companies currently offer solutions relating to identity and access management, device lifecycle management, remote access, and more. These solutions not only offer significant benefits to industry, but 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 (“FinCEN”) in 2021.<sup>2</sup> a16z strongly agrees with the FDIC that digital identity proofing is “a foundational element to enable digital financial services to function properly”<sup>3</sup> and believes that blockchain-based solutions are well-placed to help achieve that goal.

With respect to NFTs, while there are already highly publicized and well-developed uses for sports collectibles and works of art, 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.<sup>4</sup> Royal is currently beta testing a platform that uses NFTs to help musicians sell

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<sup>1</sup> Pymnts.com, *The U.S. Crypto Consumer* (Apr. 2022), <https://www.pymnts.com/wp-content/uploads/2022/04/PYMNTS-The-US-Crypto-Consumer-April-2022.pdf>.

<sup>2</sup> Federal Deposit Insurance Corporation, 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>.

<sup>3</sup> *Id.*

<sup>4</sup> OpenSea, OpenSea.io (last visited, Jun. 25, 2022).

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 artists, inscribe a public comment on the song, and engage with the artist and other fans. Dapper Labs has revolutionized sports trading cards with products such as NBA Top Shot, NFL All Day, and UFC Strike. Similarly, Autograph is creating new ways for athletes and fans to connect. NFTs will have additional powerful future use cases that are just beginning to emerge. A vast array of unique assets (e.g., real property deeds, stock certificates, etc.) could all be managed more efficiently and effectively using NFTs.

Enterprise blockchain uses are rapidly growing for applications such as supply chain integrity, supply chain management, interbank transfers, and trade finance. These developments are being led by blockchain startups, as well as more established companies such as IBM,<sup>5</sup> Maersk,<sup>6</sup> Walmart,<sup>7</sup> J.P. Morgan,<sup>8</sup> and others. 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.”<sup>9</sup>

Digital assets have also become key components of the online gaming world. Many of today’s most popular games are closely intertwined with digital assets. For example, League of Kingdoms

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<sup>5</sup> IBM, *IBM Blockchain Platform*, <https://www.ibm.com/cloud/blockchain-platform> (last visited, Jun. 27, 2022).

<sup>6</sup> Maersk, *TradeLens*, <https://www.maersk.com/apa-tradelens> (last visited, Jun. 27, 2022).

<sup>7</sup> Michael Corkery and 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>.

<sup>8</sup> J.P. Morgan, *About Coin Systems*, <https://www.jpmorgan.com/onyx/coin-system.htm> (last visited, Jul. 2, 2022).

<sup>9</sup> *Id.*

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.

## **b. Emerging and Future Use Cases**

In addition to the myriad 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. That environment is dominated by a small number of companies whose economic incentives are often misaligned with the best interests of individual users of their products. The harm caused by today's technology ecosystem has 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.<sup>10</sup>*

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<sup>10</sup> EO 14036: Executive Order on Promoting Competition in the American Economy, 86 Fed. Reg. 36987 (Jul. 9, 2021), Section 1.

The executive order 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.”<sup>11</sup>

President Biden has also specifically addressed the harm the current ad-based revenue model of many large tech companies is causing 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.”<sup>12</sup>

a16z strongly agrees with the challenges articulated by the President and believes addressing these challenges is critically important for the wellbeing of Americans and the American tech industry. Blockchain technology is ideally positioned to help solve these challenges. By their very nature, blockchains empower individual users by giving them control over their assets, their intellectual property, and their personal information and giving them a voice in the governance of underlying technology protocols. While big tech is unlikely to go away, for the first time since the earliest days of the Internet, users have a choice in how they engage in online activities and the ability to engage in many activities directly or through decentralized bodies.

While the promise of web3 is still being unlocked, we are already seeing competitors to big tech for products like online maps and GPS navigation, social media, cloud computing and storage, spam filters, online document creation and storage, and domain name purchases and management,

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<sup>11</sup> *Id.*

<sup>12</sup> 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/>.

among many other solutions. To offer a concrete example, Helium<sup>13</sup> has recently launched a decentralized wireless network that enables devices anywhere in the world to wirelessly connect to the Internet and geolocate themselves without the need for power-hungry satellite location hardware or expensive cellular plans. Prior to these blockchain-based alternatives, the above products were primarily offered only through a small handful of big tech companies.

We believe that blockchain is a critical tool in achieving the Biden administration's important goals of promoting competition, pushing back against over concentration in the tech industry, the centralized value-transfer over user-generated content, and finding alternatives to the harmful ad-driven revenue models used by social media and other tech companies. This has benefits for consumers, entrepreneurs, artists and creators, and many others.

Blockchain also promises to play a critical role in solving many other pressing global challenges ranging from climate change to supply chain resiliency. Just one example, as described below, our portfolio company Flowcarbon is working to bring carbon on chain to create democratized access to carbon offsets and incentivize high impact climate change mitigation projects.

Finally, an appropriately tailored regulatory regime will contribute to further innovation in the blockchain sector, including with respect to foundational technologies that can make blockchain-based systems more efficient and secure. Such continued innovation will help mitigate environmental concerns, ensure the safekeeping of customer assets, and speed the development of various web3 projects. Uncertain and unworkable 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.

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<sup>13</sup> Helium, <https://www.helium.com/> (last visited Jul. 2, 2022).



**c. Importance of Keeping these Projects in the US**

Many of the earliest and most successful blockchain projects were created in whole or in part in the United States. However, as the U.S. has fallen behind in developing a clear and workable legal and regulatory landscape, more and more projects are being launched partly or exclusively outside the United States. Some of these projects are eventually able to enter the U.S. market, often in a limited manner, after obtaining sufficient capital to navigate the burdensome legal landscape or after obtaining public or private assurances from regulators (a process that can take many months or longer). However, many projects never enter the U.S. market, depriving the U.S. of the latest technological innovations, hurting U.S. jobs, and hurting U.S. startups and entrepreneurs.

For example, most of the world’s largest digital asset exchanges have split themselves into two with a U.S. facing entity and a rest of the world (“ROW”) entity. The ROW entity typically has significantly more functionality including additional transaction types and a broader range of available digital assets.<sup>14</sup> Similarly, given the ongoing uncertainty with respect to the status of many digital tokens under federal securities law (described in further detail below), many token projects are now launched outside the United States in order to claim exemption from SEC rules under Regulation S, which provides that offers and sales of securities that occur outside the United States are exempt from the registration requirements of Section 5 of the Securities Act.<sup>15</sup> Many projects even distribute a material portion of their token supply to their users for free, but often limit such distributions to persons outside the U.S. given the securities laws concerns, thereby depriving Americans of ownership of web3.

In addition to the obvious economic harms caused by this dynamic, this also has the effect of ceding U.S. leadership in the blockchain industry to other countries, including many countries that are taking a government-led approach with the potential for significant harm to U.S. industry and U.S. national security. Countries such as China have been actively pushing projects such as China’s government-controlled digital yuan (“e-CNY”) and its government-backed Blockchain-

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<sup>14</sup> See, e.g., FTX.us versus FTX.com.

<sup>15</sup> 17 C.F.R. § 230.901-230.905.

based Service Network (“BSN”). If foreign government-led solutions ultimately form the backbone of the rapidly developing digital asset ecosystem this will have a harmful impact on U.S. industry, U.S. jobs, financial stability, the privacy of Americans using blockchain-based protocols, and, perhaps most importantly, the national security of the United States.

#### **d. Examples of Current Regulatory and Legal Harms**

While a comprehensive summary of existing U.S. regulatory issues for 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.*<sup>16</sup> 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 only limited guidance and instead relied largely on enforcement actions to articulate its views.<sup>17</sup>

The SEC’s failure to provide constructive guidance since 2019 and other SEC actions have contributed to uncertainty and confusion among industry. For example, the current SEC Chair has noted on a number of occasions that many digital asset trading platforms are trading securities and should register with SEC,<sup>18</sup> but the SEC has not provided any guidance on how an exchange would

<sup>16</sup> *SEC v. W.J. Howey Co.*, 328 U.S. 293 (1946).

<sup>17</sup> See, e.g., Securities Act Release No. 11060, Exchange Act No. 94858 (May 06, 2022); Securities Act Release No. 11029; Investment Company Act No. 34503 (Feb. 14, 2022); Securities Act Release No. 10961; Exchange Act Release No. 92588 (2021).

<sup>18</sup> See, e.g., Securities and Exchange Commission, 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>.

go about becoming registered or operating 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 the event of a bankruptcy of the custodian,<sup>19</sup> prompting SEC Commissioner Hester Peirce to call it part of a “scattershot and inefficient approach to crypto” by the Commission.<sup>20</sup>

This uncertainty has been recognized by members of Congress from both parties. In announcing the recently introduced *Responsible Financial Innovation Act (“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....”<sup>21</sup> In addition, because most digital assets are intended 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. The trading of securities is necessarily governed by a complex set of rules that require significant investments in time and expertise to navigate, in order to protect investors and provide stability to capital markets. These rules are inappropriate, however, for assets meant to be used on a day-to-day basis to access basic protocol functionality and engage in a variety of technology-enabled activity. Application of these rules place all companies and other entities engaged in platform creation, digital asset use, and protocol governance in an impossible bind of trying to comply with a regulatory regime designed for an entirely different set of financial instruments. This treatment also discourages individuals and companies from accessing,

<sup>19</sup> Securities and Exchange Commission, Staff Accounting Bulletin No. 121 (Apr. 9, 2022), <https://www.sec.gov/oca/staff-accounting-bulletin-121>.

<sup>20</sup> Securities and Exchange Commission, Commissioner Hester Peirce, *Statement Response to Staff Accounting Bulletin No. 121* (Mar. 31, 2022), <https://www.sec.gov/news/statement/peirce-response-sab-121-033122>.

<sup>21</sup> Sen. Kirsten Gillibrand and Sen. Cynthia Lummis, Medium, *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* (Jun. 7, 2022), <https://gillibrandny.medium.com/the-responsible-financial-innovation-act-218a764abd6c>.

experimenting with, and implementing web3 and digital asset-based technologies that may be more beneficial to consumers and industry as well as to efforts by other U.S. regulators to advance equally important policy goals.

Another commonly cited example of undue burden created by the U.S. legal regime is the tax treatment of digital assets. The Internal Revenue Service (“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.<sup>22</sup>

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 actually the product of a recent reform rather than a lack of reform as in the cases above. In 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 more narrow fashion, industry should not have to rely on an IRS interpretation when it comes to issues of such significance.<sup>23</sup>

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<sup>22</sup> The Responsible Financial Innovation Act, S. 4356, 117th Congress (2022).

<sup>23</sup> Helen Partz, Cointelegraph, *Crypto miners exempt from IRS reporting rules, U.S. Treasury affirms* (Feb. 14, 2022), <https://cointelegraph.com/news/crypto-miners-exempt-from-irs-reporting-rules-us-treasury-affirms>.

**e. Ongoing Legislative Efforts and Core Principles**

a16z is pleased to see proactive and helpful pieces of legislation that have recently been introduced, which will provide regulatory clarity to the industry and help ensure the U.S. is positioned to maintain a dominant position in the blockchain industry. In particular, the introduction of the RFIA, discussed above, and the Digital Commodity Exchange Act (“DCEA”) introduced by Representatives Glenn Thompson (R-PA), Ro Khanna (D-CA) Tom Emmer (R-MN), and Darren Soto (D-FL) are steps in the right direction. While work remains to strengthen and enhance such legislation, both bills represent bipartisan efforts to bring a clear and workable regulatory regime to the digital asset space and both, with the right enhancements, would be a significant benefit to the U.S. blockchain industry.

a16z has also been proactive in making concrete suggestions for legislation that would help ensure U.S. leadership in the blockchain space while creating workable solutions for industry and adopting appropriate safeguards for consumers and others.<sup>24</sup> For example, a16z’s *A Legal Framework for Decentralized Autonomous Organizations* offers specific legislative suggestions for the creation of a decentralized autonomous organization (“DAO”) entity structure capable of addressing various entity formation and operational issues, including filing and paying taxes, opening an entity bank account, signing legal agreements, and limiting liability for DAO members.<sup>25</sup> a16z is actively working on a number of similar measures, including a model state law for DAOs that will be published 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.

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. blockchain industry. We believe that any regulatory

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<sup>24</sup> Tomicah Tillemann, Miles Jennings, and James Rathmell, a16z, *Our Proposals to the Senate Banking Committee*, <https://a16z.com/2021/10/05/our-proposals-to-the-senate-banking-committee/>.

<sup>25</sup> Miles Jennings and David Kerr, a16z, *A Legal Framework for Decentralized Autonomous Organizations*, <https://a16z.com/tag/legal-frameworks-for-daos-series/>.

framework ultimately adopted must (1) reduce, to the degree possible, barriers to entry created by expensive and burdensome regulatory regimes, (2) recognize that the nature of blockchain projects can shift over time and be able to adapt as projects morph, and (3) be comprehensive in nature, while taking into account the unique benefits and risks of assets that can trade on public blockchains.

With respect to barriers to entry, innovation comes when industry is able to create new products and services without becoming entangled in regulatory regimes that impose costs and time commitments so significant it effectively bars many early-stage companies from participating. Regulatory regimes of that nature lead to ossification of an industry and contribute to many of the antitrust and related concerns noted above. Several jurisdictions have adopted regulatory regimes that account for this 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 licenses” that provide greater flexibility and less burdensome obligations for certain startups.<sup>26</sup> 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 U.S. laws.<sup>27</sup>

With respect to the shifting status of projects, blockchain technology is, by design, fluid. Many blockchain projects are launched with the expectation they will be community driven and will evolve in ways that may not have been foreseen by the initial developers. 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 SEC’s 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

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<sup>26</sup> Bermuda Monetary Authority, Class M License; Virtual Asset (Service Provider) Law, 2020, Sandbox License.

<sup>27</sup> *See, e.g.*, 23 NYCRR 200.4(c).

not be required.”<sup>28</sup> 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.<sup>29</sup>

Finally, any proposal that is ultimately adopted should be comprehensive in nature. While solving issues in the existing U.S. regulatory regime in a piecemeal fashion may be tempting, we believe that doing so may create unintended consequences such that a solution to one issue exacerbates another issue. Because digital assets touch on a variety of legal regimes, including securities, commodities, anti-money laundering, tax, and more, it is important to think holistically across those legal regimes to ensure the U.S. ultimately creates a clear and workable regulatory regime that fosters innovation while maintaining appropriate safeguards that reflect the unique benefits and risks of digital assets.

#### **f. Additional Benefits of a Clear U.S. Legal and Regulatory Regime**

In addition to the obvious economic benefits in terms of U.S. industry and U.S. jobs, having a clear and workable regulatory regime also has the benefit of encouraging offshore projects to come into the U.S. and be subject to U.S. legal regimes. While there is significant work to do with respect to the U.S. legal system and blockchain, the U.S. has robust and well-developed regimes relating to consumer protection, financial stability, and illicit finance. Currently, many projects operate from jurisdictions with poorly developed regulatory regimes, underfunded regulators, or, in many cases, no applicable regulatory regime at all.

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<sup>28</sup> William Hinman, Director, Division of Corporation Finance, Securities and Exchange Commission, *Digital Asset Transactions: When Howey Met Gary (Plastic)* (Jun. 14, 2018), <https://www.sec.gov/news/speech/speech-hinman-061418>.

<sup>29</sup> The Responsible Financial Innovation Act, S. 4356, 117th Congress (2022), Section 301; Digital Commodity Exchange Act of 2022, 117th Congress (2022), Section 2(f)(3)(D)(iii); Hester M. Peirce, Commissioner, Securities and Exchange Commission, *Token Safe Harbor Proposal 2.0* (Apr. 13, 2021), <https://www.sec.gov/news/public-statement/peirce-statement-token-safe-harbor-proposal-2.0>.

The U.S. has a variety of applicable consumer protection laws including the Unfair, Deceptive, or Abusive Practices Act (“UDAAP”) administered by the Consumer Financial Protection Bureau (“CFPB”), state and federal anti-fraud statutes, and disclosure and related consumer protection provisions built into state money transmitter laws.<sup>30</sup> Most cryptocurrency exchanges and similar platforms that operate in the U.S. are subject either to state banking laws or to state money transmitter laws, which typically include things like surety bond and minimum net worth requirements that are designed to ensure the financial solvency and stability of licensed entities.<sup>31</sup> The U.S. also has perhaps the best developed and enforced regimes with respect to anti-money laundering and economic sanctions. These are just a few examples of the various laws that can apply to digital assets.

By discouraging entrepreneurs and others from operating in the U.S. market, the current system effectively pushes these projects outside the reach of many U.S. laws, driving them to underregulated or unregulated markets with weaker protections. We believe the ultimate goal should be to develop a regime that attracts blockchain projects from around the world while ensuring appropriate safeguards are implemented in a clear and workable manner.

**Response to Question 6:**

**g. Environmental Considerations**

There has been significant recent discussion surrounding the environmental impact of bitcoin mining. However, lost in that discussion is the positive environmental contributions by many blockchain projects. By way of example, the above-mentioned company, 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

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<sup>30</sup> See, e.g., Colorado Money Transmitters Act (CMTA), Title 11, Article 110 (2017).

<sup>31</sup> See, e.g., Regulation of Money Service Providers, Washington State Legislature, Chapter 208-690 WAC (2018).



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.<sup>32</sup> These exciting projects show that blockchain can be a key contributor in the fight against climate change and other environmental harms. Therefore, we encourage Commerce to ensure that any conversation surrounding the environmental impact of blockchain technology takes into account the various ways blockchain technology can positively impact the environment.

**Response to Question 7:**

**h. CBDCs**

While this response does not address the advisability of a U.S. central bank digital currency (“CBDC”), a16z is concerned by the work of many foreign adversaries to create CBDCs or similar government-supported digital assets. Countries including China, Russia, Iran, and Venezuela have all either launched or are actively working on a CBDC or government-supported digital asset. We believe it is imperative that the U.S. is at the center of the future digital asset ecosystem and believe that ceding ground to foreign adversaries pushing projects of this nature will harm U.S. business, consumers, and national security.

Consider, for example, China’s push to establish a digital yuan. According to the People’s Bank of China, there were 261 million users of the digital yuan at the end of 2021 and in the last half of

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<sup>32</sup> Celo Foundation, Medium, *A Carbon Negative Blockchain? It’s Here and it’s Celo* (May 26, 2021), <https://medium.com/celoorg/a-carbon-negative-blockchain-its-here-and-it-s-celo-60228de36490>.

that year 53.1 billion digital yuan were transferred.<sup>33</sup> As of October 2021, 10 million businesses had digital yuan wallets.<sup>34</sup>

Unlike most of the major digital assets in circulation today, the digital yuan is government controlled. This means that the government can make changes to the protocol at any time including drastic changes such as seizing tokens from a user’s wallet or forcing a transfer of tokens from one user to another. While China has indicated the digital yuan will be associated with certain privacy controls, every wallet must be linked to a valid phone number, which is traceable back to a valid ID.<sup>35</sup> This means Chinese authorities could have visibility into nearly every transaction conducted by an individual or business that uses the digital yuan. Federal Reserve Chairman Jerome Powell recently remarked that the digital yuan “really allows the government to see every payment for which it is used in real time.”<sup>36</sup> That type of visibility presents concerns with respect to user privacy, corporate espionage, and national security. China has also banned most dealings in privately created digital assets,<sup>37</sup> which among other consequences, has the effect of pushing users into China’s government-backed offering.

A Hong Kong company, that reportedly has close links to the mainland Chinese government,<sup>38</sup> has also recently launched the BSN, designed to compete with centralized cloud offerings from companies such as Amazon and Microsoft. While the project was originally focused on the

<sup>33</sup> Evelyn Cheng, CNBC, *China’s digital yuan notches \$8.3 billion in transactions in 6 months, taking a tiny share of payments*, <https://www.cnbc.com/2022/01/18/chinas-digital-yuan-notches-8point3-billion-transactions-in-half-a-year.html#:~:text=China's%20digital%20yuan%20users%20have,June%2C%20according%20to%20the%20PBOC..>

<sup>34</sup> *Id.*

<sup>35</sup> Zeyi Yang, Protocol, *Who should be scared of China’s big, bad digital yuan?* (Jul. 27, 2021), <https://www.protocol.com/china/digital-yuan-real-worries>.

<sup>36</sup> *Id.*

<sup>37</sup> Alan John, Samuel Shen, and Tom Wilson, Reuters, *China’s top regulators ban crypto trading and mining, sending bitcoin tumbling* (Sep. 24, 2021), <https://www.reuters.com/world/china/china-central-bank-vows-crackdown-cryptocurrency-trading-2021-09-24/>.

<sup>38</sup> Arjun Kharpal, CNBC, *China has been quietly building a blockchain platform. Here’s what we know* (May 15, 2022), <https://www.cnbc.com/2022/05/16/china-blockchain-explainer-what-is-bsn-.html>.

Chinese market, the founders recently indicated their intent to expand globally.<sup>39</sup> Having U.S. and other companies from allied jurisdictions rely on a Chinese solution for the backbone of their offerings similarly presents significant privacy, corporate espionage, and national security risks.

Unfortunately, China is not the only adversary pushing government-backed digital assets. In 2018, Venezuela announced the launch of a digital asset known as the “petro” that is supposedly backed by Venezuela oil in an attempt to counteract U.S. sanctions against the country. Pursuant to Executive Order 13827 (Taking Additional Steps to Address the Situation in Venezuela), President Trump banned U.S. persons and persons within the United States from all transactions related to the petro and any other digital asset issued by the Government of Venezuela.<sup>40</sup> Earlier this year, Russia announced it was piloting its own CBDC,<sup>41</sup> and Iran indicated it was planning to launch a crypto-rial.<sup>42</sup> Many of these government-backed digital assets have been motivated by a desire to evade U.S. sanctions.

Conversely, privately created digital assets have not been a significant source of sanctions evasion to date. For example, when addressing the House Financial Services Committee in April, Secretary of the Treasury Janet Yellen noted, “We haven’t seen significant evasion through crypto so far,” when discussing the newly imposed Russia sanctions.<sup>43</sup> Similarly, at the Chainalysis Links

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<sup>39</sup> Martin Young and Geraint Price, BeInCrypto, *Surveillance Concerns as China’s State Blockchain Firm Plans International Expansion* (May 23, 2022), <https://beincrypto.com/china-surveillance-concern-over-blockchain-firm-international-expansion/>.

<sup>40</sup> EO 13827: Executive Order on Taking Additional Steps to Address the Situation in Venezuela, 84 Fed. Reg. 509 (Jan. 25, 2019), <https://home.treasury.gov/system/files/126/13827.pdf>.

<sup>41</sup> Anna Baydakova, CoinDesk, *Bank of Russia Proceeds with Digital Ruble, Renews Push for Crypto Ban* (Feb. 16, 2022), <https://www.coindesk.com/policy/2022/02/16/bank-of-russia-proceeds-with-digital-ruble-renews-push-for-crypto-ban/>.

<sup>42</sup> Coin Geek, *Iranian central bank to launch its crypto-rial CBDC* (Apr. 19, 2022), <https://coingeek.com/iranian-central-bank-to-launch-its-crypto-rial-cbdc/>.

<sup>43</sup> Derek Andersen, Cointelegraph, *Yellen says crypto hasn’t been used for significant Russian sanctions evasion so far* (Apr. 06, 2022), <https://cointelegraph.com/news/yellen-alleges-crypto-has-not-been-used-for-significant-russian-sanctions-evasion-so-far>.

Conference in May, FinCEN’s Associate Director of Enforcement and Compliance Alessio Evangelista noted, “There’s been a lot of discussion recently about Russia turning to cryptocurrency to evade the growing net of U.S. and international sanctions. We’ve acknowledged that large-scale sanctions evasion using cryptocurrency by a state actor like Russia is not that practicable.”<sup>44</sup>

Indeed, the traceability of many of the most popular digital assets provides regulators and law enforcement with enhanced tools to identify bad actors, locate their assets, and, increasingly, to seize their assets.<sup>45</sup>

We believe U.S. leadership in the blockchain sector is critically important to ensure that solutions from the U.S. and other allies ultimately form the backbone of the global digital asset ecosystem and not adversaries like China, Russia, and others. While a U.S. CBDC may, potentially, be part of that equation, ensuring a robust private sector that is well-positioned to compete with foreign government-backed offerings is even more important.

Finally, it is worth highlighting that a number of U.S. companies have been at the forefront of privately launched stablecoins that can provide a strong alternative to CBDCs. While the stablecoin market has come under scrutiny of late, it is worth noting that the term “stablecoin” encompasses a broad category of assets that include coins with significantly different structures, backing, and regulatory oversight. Many of the U.S.-based offerings are highly regulated, typically under state banking or money transmitter laws, and have weathered the recent stablecoin market turmoil without incident. Moreover, issuers and administrators of stablecoins are generally considered Money Services Businesses by FinCEN, subjecting them to obligations under the Bank

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<sup>44</sup> FinCEN, Prepared Remarks of Alessio Evangelista, Associate Director, Enforcement and Compliance Division, During Chainalysis Links Conference (May 19, 2022), <https://www.fincen.gov/news/speeches/prepared-remarks-alessio-evangelista-associate-director-enforcement-and-compliance>.

<sup>45</sup> *See, e.g.*, Department of Justice, Two Arrested for Alleged Conspiracy to Launder \$4.5 Billion in Stolen Cryptocurrency (Feb. 08, 2022), <https://www.justice.gov/opa/pr/two-arrested-alleged-conspiracy-launder-45-billion-stolen-cryptocurrency>.

Secrecy Act. We believe that even if a U.S. CBDC is ultimately launched, private stablecoins will continue to have an important role to play, including with respect to promoting resiliency, enhancing privacy, and fostering innovation.

### **III. Comparisons to Traditional Financial Services and Financial Inclusion Considerations**

#### **Response to Question 12:**

##### **a. U.S. Economic Leadership has Been Consistently Driven by Flexible, Fit-for-Purpose Regulation of Emerging Technology**

Since the Second World War, the United States has been a leader in developing the international economic system. With respect to governmental action, we believe this is primarily attributable to two key factors: (1) U.S. government efforts to foster innovation and promote U.S. industry and (2) active U.S. participation in international bodies such as the International Monetary Fund, World Bank, World Trade Organization, Organization for Economic Cooperation and Development, the Financial Action Task Force (“FATF”), and others to ensure a well-developed, rules-based, even playing field for industry. a16z believes focusing on these same two core tenants is essential to ensure the U.S. remains a dominant player in the digital asset ecosystem.

U.S. industry has been most successful when allowed to flourish in a market-driven manner with appropriate and well-scoped regulation playing a role where necessary. This phenomenon is perhaps best illustrated with respect to the early days of the Internet. Many of the criticisms aimed at blockchain today are the same criticisms previously aimed at the Internet. The Internet is so ubiquitous today that people often forget there was a time when the Internet was widely criticized as offering little practical value to average users and mostly attracting persons engaged in illicit conduct. Few people imagined the Internet would develop into what it is today. Nonetheless, the U.S. wisely took a light-touch regulatory approach, allowing innovation to flourish and not seeking to regulate where clear uses were only beginning to become apparent. As described above, with

respect to a16z’s support for comprehensive legislative reform, we believe such an approach is necessary with respect to blockchain. The U.S. simply cannot afford to fall beyond and cede the future of international finance to China and other competitors.

In addition to allowing industry to flourish, the U.S. should be an active proponent of the industry in international forums and push for adoption of a clear, workable, and even international legal landscape. Unfortunately, this has not been the case to date. Take for example, the so-called “travel rule” that in 2019 FATF indicated should apply to “virtual assets.”<sup>46</sup> FATF issued updated guidance telling national regulators to impose the travel rule on “virtual asset service providers” or “VASPs,” but did not offer any clear solutions to the bevy of issues associated with that guidance, including the lack of technological solutions to implement compliance and the fact that many jurisdictions did not have any rules regulating VASPs, never mind a workable law focused on the travel rule and virtual assets. The result has been uneven and slow adoption by national regulators, leaving industry to try to sort through the mess on its own. According to FATF’s most recent update, only 29 jurisdictions have passed legislation or issued regulations extending the travel rule to digital assets, and only 11 jurisdictions have begun enforcing the travel rule with respect to digital assets.<sup>47</sup> The Department of Treasury has similarly sought to engage in new rulemakings with respect to the travel rule<sup>48</sup> and unhosted wallets<sup>49</sup> that would place the U.S. out-of-step with other jurisdictions, creating unique compliance burdens that would contribute to an uneven regulatory playing field and add to the reasons many projects avoid the U.S. market.

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<sup>46</sup> *Updated Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers*, Financial Action Task Force (2021), <https://www.fatf-gafi.org/media/fatf/documents/recommendations/Updated-Guidance-VA-VASP.pdf>.

<sup>47</sup> [Financial Action Task Force, \*Targeted Update on Implementation of the FATF Standards on Virtual Assets and Virtual Asset Service Providers\*](https://www.fatf-gafi.org/media/fatf/documents/recommendations/Targeted-Update-Implementation-FATF%20Standards-Virtual%20Assets-VASPs.pdf) (Jun. 2022), <https://www.fatf-gafi.org/media/fatf/documents/recommendations/Targeted-Update-Implementation-FATF%20Standards-Virtual%20Assets-VASPs.pdf>.

<sup>48</sup> 85 Fed. Reg. 68005 (Oct. 27, 2020).

<sup>49</sup> 86 Fed. Reg. 7352 (Jan. 28, 2021).

While appropriate regulatory safeguards are a key component of an effective and attractive legal framework, the U.S. should make every effort to ensure that U.S. companies are not disadvantaged when competing against companies in other jurisdictions. This includes pushing for clear, specific, and workable solutions at international bodies such as FATF, as well as ensuring that any new U.S. statutory or regulatory changes are in keeping with international practices and do not hamper the ability of companies to enter the U.S. market or to flourish once here.

**Response to Question 13:**

**b. Comparisons to Traditional Payments and Trade Finance**

Digital assets provide significant advantages compared to fiat currency in the cross-border context, including for cross-border payments, remittances, and trade finance.

The United States is the world’s largest remittance-sending country, sending over \$70 billion in 2019.<sup>50</sup> 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%.<sup>51</sup> 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%.<sup>52</sup> 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 (e.g. a post office), mobile money or e-money account.”<sup>53</sup> Traditional remittance

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<sup>50</sup> Dany Bahar, Brookings Institution, *Remittances: One more thing that economists failed at predicting during COVID-19* (Jul. 01, 2021), <https://www.brookings.edu/blog/future-development/2021/07/01/remittances-one-more-thing-that-economists-failed-at-predicting-during-covid-19/>.

<sup>51</sup> The World Bank Group, *Remittance Prices Worldwide* (June 2021), [https://remittanceprices.worldbank.org/sites/default/files/rpw\\_main\\_report\\_and\\_annex\\_q221.pdf](https://remittanceprices.worldbank.org/sites/default/files/rpw_main_report_and_annex_q221.pdf).

<sup>52</sup> *Id.*

<sup>53</sup> *Id.*

services are also quite slow. For example, Western Union states that international money transfers will typically be completed in one to five business days.<sup>54</sup> 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.<sup>55</sup> While the speed and cost of a digital asset transaction varies depending on the blockchain used, almost all digital asset transactions are faster and cheaper than the traditional fiat options. To take just one example, bitcoin transactions can be processed as quickly as a few minutes with average transaction fees as low as a dollar.<sup>56</sup> Other blockchains are even faster and cheaper than that.

The same advantages of speed and cost in the remittance context also make digital assets preferable for international payments in other contexts including commerce of all kinds.

With respect to trade finance, blockchain is quickly becoming a go-to solution for many companies. Trade finance blockchain solutions are now offered by entities including IBM, R3, and XDC, among others. These solutions have a number of benefits over the traditional system by moving from an opaque and fragmented system to a transparent and unified system. This means sellers have more visibility and certainty into receipt of payment, and buyers have more visibility and certainty into receipt of goods. Even the financial institutions benefit by reducing

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<sup>54</sup> Christy Lowry, Western Union, *How long do money transfers take?* (Apr. 01, 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.>

<sup>55</sup> 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/>.

<sup>56</sup> Arjit Sarkar, *Bitcoin average transaction fees lowest in two years at \$1.04*, Cointelegraph (Apr. 18, 2022), <https://cointelegraph.com/news/bitcoin-average-transaction-fees-lowest-in-two-years-at-1-04>.



administrative cost and burden. Several detailed reports provide excellent insight on this topic, including reports from Cognizant,<sup>57</sup> and Deloitte,<sup>58</sup> among others.

**Response to Question 14:**

**c. Financial Inclusion**

a16z is deeply committed to financial inclusion, and 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 United States 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.<sup>59</sup>*

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<sup>57</sup> Lata Varghese and Rashi Goyal, *How Blockchain Can Revitalize Trade Finance (Part 1)*, Cognizant (2019), <https://www.cognizant.com/fr/fr/dotcom/documents/how-blockchain-can-revitalize-trade-finance-part1-codex2766.pdf>.

<sup>58</sup> Deloitte, *How Blockchain Can Reshape Trade Finance*, <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/grid/trade-finance-placemat.pdf>.

<sup>59</sup> EO 14067: Ensuring Responsible Development of Digital Assets, 87 Fed. Reg. 14143 (Mar. 09, 2022), Section 2(e).

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.”<sup>60</sup>

As noted in the Commerce 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.<sup>61</sup> However, the RFC question did not note that those numbers are significantly higher for communities of color. Among Black households that number was 13.8%, and among Hispanic households it was 12.2%.<sup>62</sup>

When survey respondents were asked why they didn’t have a bank account, they cited a number a number of factors, 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%).<sup>63</sup>

Blockchain technology can help resolve many of these issues by reducing fees, putting users in charge of their own 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. According to recent research from the University of Chicago, 44% of cryptocurrency traders were persons of

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<sup>60</sup> 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).

<sup>61</sup> Federal Deposit Insurance Corp., How America Banks: Household Use of Banking and Financial Services (2020), <https://www.fdic.gov/analysis/household-survey/2019execsum.pdf> at 1.

<sup>62</sup> *Id.* at 2.

<sup>63</sup> *Id.* at 3.

color as compared to just 35% of investors in the traditional stock market.<sup>64</sup> A recent Harris Poll found that 30% of Black Americans and 27% of Hispanic Americans owned cryptocurrency compared to just 17% of White Americans.<sup>65</sup> 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 access, custody, and transfer digital assets directly.

#### IV. Technological Development

##### Response to Question 15:

##### a. Importance of Standards

While standards are not appropriate for every issue in the blockchain ecosystem, we believe there are areas where the development of standards would be beneficial. We believe the National Institute of Standards and Technology (“NIST”) is well-positioned to play a leading role in the development of standards on topics such as interoperability, digital identity management, device authentication, and more. NIST has already done significant work in some of these areas, such as with its Digital Identity Guidelines,<sup>66</sup> but this work has not been specific to blockchain. We also believe the creation of a self-regulatory organization (“SRO”) under the supervision of financial market regulators, such as the one proposed in the RFIA and the DCEA, could be tasked with the development of standards on other non-technical matters where NIST is less well-suited to lead. A SRO might focus, for example, on standards related to token listing criteria for exchanges,

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<sup>64</sup> 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>.

<sup>65</sup> *Id.*

<sup>66</sup> Paul A. Grassi, Michael E. Garcia, and James L. Fenton, NIST Special Publication 800-63-3, National Institute of Standards and Technology (Jun. 2017), <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-63-3.pdf>.

consumer disclosure, decentralized governance, risk mitigation, code auditing, and code auditor independence, among others.

The U.S. has a long and rich history with respect to successful use of SROs, dating back to the Chicago Board of Trade in the mid-1800s. Today, SROs such as the Financial Industry Regulatory Authority (“**FINRA**”) and the National Futures Association (“**NFA**”), among others, are key pillars of the U.S. securities and commodities legal regimes. The SEC alone supervises several SROs, including national securities exchanges, registered clearing agencies, the Municipal Securities Regulatory Board (“**MSRB**”), and FINRA, among others. Indeed, the Commission has acknowledged that “[s]elf-regulation, with oversight by the Commission, is a basic premise of the Exchange Act.”<sup>67</sup> The CFTC similarly oversees a number of SROs with key roles in the CFTC regulatory regime. As former CFTC Chair Heath Tarbert wrote in his 2021 paper entitled *Self-Regulation in the Derivatives Markets: Stability Through Collaboration*, when appropriately utilized, SROs have a number of potential benefits, including: cost savings for taxpayers, consistent and sustainable financing, deep knowledge and expertise of the underlying market and market participants, better speed and flexibility to respond to changing dynamics, increased trust by market participants, swifter enforcement, and better ability to innovate.<sup>68</sup>

Throughout the history of U.S. financial regulation, SROs have been the rule and not the exception. We believe that an appropriately structured and empowered SRO could play a similarly positive role in the digital asset context.

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<sup>67</sup> 73 Fed. Reg. 40143 (Jul. 11, 2008).

<sup>68</sup> Heath P. Tarbert, *Self-Regulation in the Derivatives Markets: Stability Through Collaboration*, 41 Nw. J. Int'l L. & Bus. 175 (2021).

**Response to Question 16:****b. Security Considerations**

We believe the biggest threat to security in the blockchain space is the possibility that the international blockchain ecosystem becomes dominated by U.S. adversaries offering state-backed solutions such as China’s digital yuan or the BSN. As described above, 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 (“**FIRMA**”) expansion of the Committee on Foreign Investment in the United States’ (“**CFIUS**”) authority over transactions involving sensitive personal data,<sup>69</sup> as well as the Commerce Department’s recently issued regulations on securing the information and communication technology and services supply chain (“**ICTS**”).<sup>70</sup> 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.

Fortunately, privately created blockchains have had the opposite effect by empowering dissidents, journalists, and oppressed minority groups to transact without risking punishment from authorities. It is no coincidence that cryptocurrency penetration is particularly high in many authoritarian

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<sup>69</sup> Foreign Investment Risk Review Modernization Act of 2018, Section 1703(a)(4)(iii)(III).

<sup>70</sup> 15 C.F.R. Part 7.

regimes such as Russia (11.91%) and Venezuela (10.34%).<sup>71</sup> It is also no coincidence that these same types of authoritarian regimes, such as China, are the regimes that have sought to ban privately created blockchains. A payment system controlled by individuals and not by the government presents a direct threat to the authoritarian control exercised by these oppressive regimes. In addition to payments, blockchain technology can provide a variety of other tools for activists, dissidents, and oppressed populations, including things such as private messaging<sup>72</sup> and immutable data storage to archive historical records.<sup>73</sup>

Digital assets have also proven to be 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 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.<sup>74</sup> 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.”<sup>75</sup>

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

<sup>71</sup> *Cryptocurrency across the world*, Triple A, <https://triple-a.io/crypto-ownership/>.

<sup>72</sup> See, e.g., Session, <https://getsession.org/> (last visited Jul. 2, 2022).

<sup>73</sup> See, e.g., Arweave, <https://www.arweave.org/> (last visited Jul. 2, 2022).

<sup>74</sup> Zhiyuan Sun, *Vitalik Buterin quietly donates \$5M ETH to aid Ukraine as total tracked crypto donations reach \$133M*, Cointelegraph, April 7, 2022.

<sup>75</sup> Roundtable Editor, *Exclusive: Ukrainian Deputy Minister Makes Live Appeal to World Crypto Community* (Apr. 08, 2022), <https://roundtable.io/news-causes/exclusive-ukrainian-deputy-minister-makes-live-appeal-to-world-crypto-community>.

withdrawals and many ATMs ran out of money.<sup>76</sup> While Ukraine’s traditional financial system has continued to struggle, digital assets have played a key role in providing liquidity to the Ukrainian economy.<sup>77</sup>

**Response to Question 17:**

**c. Interoperability**

Interoperability is critically important with respect to certain aspects of the blockchain ecosystem, such as travel rule solutions that must be able to talk to and interact with one another. However, it may be less important in other contexts. There are many market-based solutions such as bridges that help users easily move between chains. Centralized exchanges offer another mechanism for users to move between chains. Nonetheless, these solutions do involve some degree of friction and cost. We believe NIST would be well-suited to develop technical standards on interoperability which could then be adopted by a SRO or similar organization.

**V. Conclusion**

a16z greatly appreciates the opportunity to provide comments on these important matters. We believe it is critically important that the U.S. remains a leader when it comes to blockchain technology, which we believe is rapidly becoming a key pillar of the international financial system. If the U.S. is not a leader, we are concerned that this void will be filled by actors such as 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. We believe the U.S. can

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<sup>76</sup> David Attlee, *‘I’ve never paid with crypto before’: How digital assets make a difference amid a war*, Cointelegraph (Apr. 09, 2022), <https://cointelegraph.com/news/i-ve-never-paid-with-crypto-before-how-digital-assets-make-a-difference-amid-a-war>.

<sup>77</sup> Illia Polosukhin, *How Cryptocurrency is Helping Ukraine*, The Wall Street Journal (Mar. 23, 2022), <https://www.wsj.com/articles/how-crypto-is-helping-ukraine-russia-currency-donations-transfer-infrastructure-11648065166>.

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 United States companies.

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

Respectfully submitted,

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