From Crypto Wild West to Regulated Frontier: Unleashing the Potential of Blockchain Technology

Pawan Jain
Virginia Commonwealth University

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FROM CRYPTO WILD WEST TO REGULATED FRONTIER: UNLEASHING THE POTENTIAL OF BLOCKCHAIN TECHNOLOGY

Pawan Jain*

ABSTRACT

The emergence of blockchain technology has transformed the financial landscape in many ways. From creating new cryptocurrencies to facilitating decentralized exchanges and smart contracts, blockchain has the potential to disrupt traditional financial institutions and reshape the way we conduct business. However, the adoption of blockchain technology has also raised concerns about its potential risks and challenges, such as its susceptibility to fraud, market manipulation, and money laundering. These concerns have led to calls for regulating blockchain technology to mitigate these risks and ensure the integrity and stability of financial markets. Recent collapses in the crypto market caused by the bankruptcy of one of the largest crypto exchanges, FTX, and the failure of a stablecoin, Luna, have intensified the need for regulations in this space.

Establishing clear regulations and guidelines for blockchain-based transactions can help prevent such activities and ensure a level playing field for all participants in the market, as well as increase stakeholders’ confidence in the security and reliability of these transactions. In addition, regulating blockchain technology can also promote innovation and competition in the market. By establishing clear rules and guidelines, new entrants can enter the market with greater ease, encouraging competition and innovation. Increased competition leads to greater efficiency and lower costs for consumers, as well as new financial products and services.

Regulating blockchain technology is not without its challenges. The decentralized nature of blockchain technology makes it difficult to regulate, and the global nature of cryptocurrencies and blockchain-based transactions makes it difficult to establish consistent regulations across different jurisdictions. Moreover, regulating blockchain technology too stringently could stifle innovation and harm the growth of the industry. Further, deregulation can help

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* Department of Finance, Insurance, and Real Estate, School of Business, Virginia Commonwealth University, Richmond, VA; Email: JainP5@vcu.edu
promote financial inclusion by making it easier for individuals and businesses to access crypto assets and participate in the digital economy.

Therefore, policymakers and regulators must strike a balance between regulating blockchain technology to mitigate risks and promote stability, while also allowing for innovation and growth in the industry. This balance requires a deep understanding of the technology and its potential risks and benefits, as well as a commitment to establishing clear and consistent regulations across different jurisdictions.

This Article fills an important gap in the literature by summarizing and comparing how different countries and regions approach blockchain regulation. I also identify best practices and highlight areas where regulation can be improved to better support innovation and growth. I contribute to the literature by providing a comparative analysis to deepen our understanding of the different approaches to blockchain regulation and how each approach impacts the development of the technology. By highlighting the benefits and drawbacks of different approaches to blockchain regulation, this research can help regulators make informed decisions that balance the need for innovation with the need to protect consumers and maintain market stability. Further, I highlight the need for collaboration between different countries and regions to promote innovation and ensure a level playing field for businesses and individuals operating in the blockchain space. Finally, I present the lessons that can be learned from the recent “systemic” failures of stablecoins, crypto exchanges, and crypto banks.

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I. INTRODUCTION

Financial technologies (Fintech) offer better financial solutions for lower costs.\(^1\) However, successful implementation of any Fintech solution requires more than just advanced technology; it also requires an understanding of the laws and regulations applicable to the business and the proposed Fintech solution. The existing regulatory framework often does not inform the new Fintech products.\(^2\) Fintech solutions generally allow easier access to financial services to unsophisticated individuals who may require additional protection. Fintech can also create complexities in terms of privacy, customer protection, transparency, and cyber-security.\(^3\) Further, decentralization, disintermediation, and anonymity associated with certain Fintech solutions has made regulating the industry quite challenging. All these factors can result in the tightening of Fintech regulations, both at the state and federal levels.

A particular Fintech innovation that has caught the attention of both academics and regulators is blockchain-based financial products. Blockchain is a decentralized, distributed ledger technology that allows for the secure and transparent storage and transfer of data.\(^4\) Blockchain provides a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.\(^5\) In a blockchain, data is stored in “blocks” that are linked together in a chain.\(^6\) Each block contains a digital record of transactions, which is verified by a network of users rather than a single central authority.\(^7\) Once a block is added to the chain, it cannot be altered, which ensures the integrity and immutability of the data stored on the blockchain.\(^8\) This makes blockchain a trusted and reliable technology for a variety of use cases, including financial transactions, supply chain management, and digital identity.\(^9\)

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\(^3\) Id.


\(^7\) See Nakamoto, supra note 4, at 1.

\(^8\) Id.

\(^9\) Id.
Blockchain technology saw its first significant application in the Bitcoin cryptocurrency, first introduced in 2009. The most fundamental aspect of any currency is to avoid the possibility that the same unit of currency can be spent twice by the same person. Bitcoin uses a blockchain to solve the double spending problem providing users with a mechanism that guarantees everyone in the community can trust the record of transactions. The ledger is immutable because there is a financial cost (in the form of computational effort, i.e., electricity) to add a new block extending the existing blockchain together with a reward for doing so. The fact that adding a block incurs a significant cost gives a “Proof of Work” guarantee to the other parties competing to add the next block to the chain. The reward provides the incentive for many parties (miners) to compete to add the next block. Anyone/everyone on a blockchain network can have a copy of the ledger. The distributed and decentralized property of blockchain makes the system immutable, which also provides trust.

A secure, immutable, distributed ledger is a perfect vehicle for cryptocurrencies but has many other applications. Blockchain technology can be useful in any application where multiple parties, who may not necessarily trust one another or whose stake in a transaction may be different, need to update a common database where transactions can be verified by all parties. Currently, such applications are typically mediated by legal contracts, central trusted authorities, or governmental institutions. A fundamental feature of the new technology is that blockchains can be used to decentralize control by replacing institutional trust with digital trust.

Blockchain technology is an innovative distributed ledger technology that enables the secure transfer of data and value across a decentralized network without the need for intermediaries. Blockchain technology has the potential to disrupt traditional financial services and improve the efficiency and transparency

10 See Caldwell, supra note 6, at 1.
12 Id.
13 Id.
17 Longbing Cao, Decentralized AI: Edge Intelligence and Smart Blockchain, Metaverse, Web3, and DeSci, 37 IEEE INTEL. SYS. 6, 7 (2022).
18 Id.
19 Id.
of financial transactions. However, the emergence of blockchain technology has also raised significant regulatory challenges for policymakers and regulators around the world.

While blockchain technology provides a high degree of transparency and immutability, it also enables users to transact without revealing their identities, which makes it challenging for regulators to monitor and detect illegal activities, such as money laundering and terrorist financing, and to enforce relevant laws and regulations. Striking a balance between promoting innovation and protecting consumers and investors poses unique regulatory challenges. The regulatory challenges are further intensified by the recent crises in the crypto market. In May 2022, the collapse of the third largest stablecoin, Terra-USD-Classic (USTC), wiped out about $500 billion in the crypto market causing Bitcoin, the general indicator of crypto health, to plummet from about $68,000 to below $20,000. To make the situation worse, in November 2022, FTX, one of the world’s largest cryptocurrency exchanges, valued at $32 billion, collapsed overnight on account of governance problems. The two largest collapses in the short history of cryptocurrencies may further deter investors, who already are cautious because of concerns about stability and security. Global regulators may see these collapses in the crypto space as a justification for tightening regulatory scrutiny of cryptocurrencies, which may result in the creation of new laws governing digital tokens and exchanges. This Article examines the latest regulatory developments in blockchain regulation and highlights the key issues and challenges facing regulators.

By describing and contrasting the various approaches to blockchain regulation taken by various nations and regions, I make several significant contributions to the literature. I highlight the areas where the regulations can be improved to promote innovation and growth. In order to further our understanding of the various approaches to blockchain regulation and how they affect the advancement of technology, I add to the literature by offering a comparative study of blockchain regulations across states and countries. The findings from this research can assist regulators in making decisions that strike a balance between the need for innovation and the need to maintain market stability by emphasizing the advantages and disadvantages of various approaches to blockchain regulation.

Finally, I evaluate the failure of a major stablecoin, Luna (launched by TerraUSD), the bankruptcy of FTX, and the recent banking crisis due to the collapse of crypto-friendly banks: Silicon Valley Bank and Signature Bank. There is a lack of transparency and regulation that makes it difficult for investors to understand the risks involved in investing in these products. Based on these case studies, I propose regulations that could help the blockchain industry to grow while minimizing the risk.

II. CURRENT REGULATORY FRAMEWORK FOR BLOCKCHAIN TECHNOLOGY

The regulation of blockchain technology varies significantly across different jurisdictions, with some countries embracing the technology while others adopt a more cautious approach. In general, regulators around the world have been grappling with how to apply existing laws and regulations to blockchain technology, and in some cases, new regulations are being developed specifically for blockchain applications. Some countries, such as Malta, Switzerland, and Singapore, have taken a proactive approach to blockchain regulation and have created a supportive regulatory environment for blockchain companies. These countries have recognized the potential of blockchain technology to attract investment and create jobs and have taken steps to provide clarity on the legal and regulatory frameworks for blockchain businesses.

Other countries, such as the United States, China, and India, have adopted a more cautious approach to cryptocurrency regulation. China has

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cracked down on cryptocurrency exchanges and initial coin offerings (ICOs) due to concerns over financial stability and money laundering.\textsuperscript{32} India has adopted a stringent position on cryptocurrencies while showing a more receptive attitude toward blockchain technology, with the government setting up a task force to explore the use of blockchain technology in various sectors.\textsuperscript{33}

Blockchain is a novel and emerging technology that has the potential to revolutionize a wide range of industries. However, the regulatory environment for blockchain is still in its early stages of development, and this has led to a great deal of uncertainty for businesses and investors. By collaborating, regulators can help to create a clear and stable regulatory environment for blockchain, which will promote innovation and investment in this emerging new technology.

\textbf{A. The Fragmented Approach to Regulation in the United States}

In the United States, the regulatory landscape for blockchain technology is complex and fragmented, with different regulatory bodies, such as the Securities and Exchange Commission (SEC), the Commodity Futures Trading Commission (CFTC), and the Financial Crimes Enforcement Network (FinCEN), having different interpretations of how blockchain technology should be regulated.\textsuperscript{34} The differences in approaches towards regulating blockchain-based assets has led to regulatory uncertainty, which has hindered innovation and investment in the blockchain industry.\textsuperscript{35}

The decentralized nature of blockchain technology and the potential for crypto assets to facilitate illicit activities has led to a patchwork of state legislation in the United States.\textsuperscript{36} While there is regulatory uncertainty at the federal level, several states have enacted blockchain regulations. The division of regulatory authority between the federal government and the states regarding blockchain is likely to continue to evolve as the technology develops and is used in new and innovative ways. As of 2023, more than half of the states have enacted legislation related to blockchain and crypto assets.\textsuperscript{37} These laws vary in their


\textsuperscript{34} ROSARIO GIRASA, \textit{REGULATION OF CRYPTOCURRENCIES AND BLOCKCHAIN TECHNOLOGIES: NATIONAL AND INTERNATIONAL PERSPECTIVES} 18–19, 83–84, 93 (Bernardo Nicoletti ed., 2018).


\textsuperscript{36} Id.

\textsuperscript{37} Paul Hodnefield, \textit{Blockchain and Distributed Ledger Laws: State-by-State Adoption}, THOMSON REUTERS,
scope, with some states focusing on the regulation of crypto assets, while others have addressed the use of blockchain technology in a wide range of applications, including voting systems, smart contracts, and property records.38

One of the earliest states to pass legislation related to blockchain and crypto assets was Vermont.39 In 2018, Vermont passed the Digital Currency Limited Liability Company Act, which allowed for the formation of digital currency limited liability companies.40 This law provided a legal framework for businesses to operate in the cryptocurrency industry, offering protections to consumers and investors while also ensuring compliance with state regulations.41

Other states have focused on regulating the use of crypto assets. For example, New York passed the BitLicense in 2015, which required companies involved in virtual currency business activities to obtain a license to operate in the state.42 The BitLicense has been controversial, with critics arguing that it imposes overly burdensome requirements on businesses in the crypto industry.43

Many states have also passed legislation related to blockchain technology more broadly. In Arizona, for example, the legislature passed a bill in 2017 that recognized the legality of smart contracts and blockchain signatures.44 This law provided a legal framework for the use of blockchain technology in a variety of applications, including contracts and transactions.45

In addition to state legislation, several states have formed blockchain task forces or study committees to examine the potential uses and risks associated with the technology. For example, in 2019, the Governor of Colorado signed a bill creating a blockchain task force to study the technology and make recommendations for its use in the state.46 Other states, such as Florida, have formed blockchain study committees to examine the regulatory and economic implications of blockchain technology.47 The role of the task force is to develop a master plan for fostering the expansion of the blockchain industry in the state.

38 Satya Prakash Yadav et al., Blockchain-Based Cryptocurrency Regulation: An Overview, 59 COMPUTATIONAL ECON. 1659 (2022).
40 See VT. STAT. ANN. tit. 11, § 4173 (West 2023).
41 Id.
44 See ARIZ. REV. STAT. ANN. § 44-7061 (2017).
45 Id.
46 See COLO. REV. STAT. ANN. § 24-37.5-105 (West 2023).
and to recommend policies and state investments to help make Florida a leader in blockchain technology.\textsuperscript{48}

Another common regulation enacted by a handful of states relates to the creation of a regulatory sandbox program. Sandbox regulations are a set of guidelines and frameworks established by the state regulatory authorities to allow fintech and blockchain startups to experiment with innovative financial technologies and products in a live environment within the state.\textsuperscript{49} Florida enacted a Financial Technology Sandbox Program within the Office of Financial Regulation, which allows financial technology innovators to test new products and services in a supervised, flexible regulatory sandbox, using waivers of specified general law and rule requirements under predefined conditions.\textsuperscript{50} Similarly, Louisiana,\textsuperscript{51} North Carolina,\textsuperscript{52} Rhode Island,\textsuperscript{53} Utah,\textsuperscript{54} and West Virginia,\textsuperscript{55} have created blockchain regulatory sandbox programs to provide a regulation-friendly environment to innovators.\textsuperscript{56}

\textbf{B. The Blockchain Capital of the World: Wyoming's Progressive Approach for a Regulatory Framework}

Wyoming has emerged as a leader in the United States when it comes to the adoption of blockchain technology and the development of a regulatory framework for crypto assets. After the passage of several bills in 2018, Wyoming has become known as the “Blockchain State,” and has attracted a number of blockchain-related businesses to the state.\textsuperscript{57} I will examine the key pieces of

\textsuperscript{48} See Hodnefield, \textit{supra} note 37.


\textsuperscript{50} See Hodnefield, \textit{supra} note 37, at 12.


\textsuperscript{56} Fintech and blockchain sandbox regulations provide a conducive environment for startups to experiment with new and innovative technologies and encourage the development of new ideas, solutions, and business models. The sandbox regulations also mitigate the risks associated with experimenting with new financial technology and reduce the barrier to entry by reducing the cost of meeting regulations. However, Fintech and blockchain sandbox regulations are not consistent across jurisdictions, leading to uncertainty in the regulatory environment for businesses operating across states.

\textsuperscript{57} During its 2018 Budget Session, the Wyoming State Legislature passed five bills, now codified into law. \textit{See WYO. STAT. ANN.} §§ 17-4-102, -206, 17-16-140 to -142, -626, -720, -724, -730, -1601, 17-29-21, 39-11-105, 40-22-102, -104, -126 (West 2023).
blockchain legislation that have been passed in Wyoming and their impact on the industry. Table 1 presents a quick summary of all the legislation proposed in the state of Wyoming.

In 2018, the Wyoming legislature passed the Wyoming Money Transmitter Act–Virtual Currency Exemption, which exempts a person who develops, sells, or facilitates the exchange of an open blockchain token from the Wyoming Money Transmitters Act. The act further provided a legal framework for the issuance, sale, and transfer of digital assets. The law defined digital assets as intangible personal property, which means that they are subject to the same laws as other forms of property. The law also established a process for the certification of digital asset depositories, which are entities that hold digital assets on behalf of others.

In 2019, Wyoming passed a series of additional bills aimed at promoting the use of blockchain technology and providing regulatory clarity for businesses operating in the industry. One of the most notable of these bills was the Wyoming Utility Token Act, which exempted certain types of digital tokens from securities laws. The law provided a framework for the issuance and sale of utility tokens, which are tokens that are used to access a specific product or service.

In 2019, Wyoming passed groundbreaking legislation that paved the way for a new type of bank known as the Special Purpose Depository Institution (SPDI). SPDI banks are designed to provide custody and other financial services specifically for digital assets, including cryptocurrencies and other blockchain-based assets. The introduction of SPDI banks in Wyoming represents a major step forward for the blockchain industry by providing a secure and regulated framework for financial services related to digital assets.

The Wyoming SPDI law is the first of its kind in the United States and has been hailed as a major breakthrough for the blockchain industry. Before the introduction of SPDI banks, digital asset custodians were required to obtain banking licenses from traditional banks, which can be a lengthy and expensive process. SPDI banks provide a more streamlined and cost-effective option for

61 Id.
62 Id.
63 Id.
64 Id.
digital asset custodians, as well as a secure and regulated framework for the
storage and transfer of digital assets.\textsuperscript{66}

Under Wyoming law, SPDI banks are authorized to provide a range of
financial services related to digital assets, including custody, fiduciary, and
deposit-taking services.\textsuperscript{67} SPDI banks are required to maintain certain minimum
capital and liquidity requirements and must also comply with a range of
regulatory requirements related to risk management and other areas. SPDI banks
provide a secure and regulated framework for financial services related to digital
assets.\textsuperscript{68} The creation of SPDI banks has been driven by a recognition that the
existing regulatory framework for traditional banks is not well-suited to the
unique risks and challenges posed by digital assets.\textsuperscript{69}

One of the key benefits of SPDI banks is the increased security and
protection they provide for digital assets. Custody services provided by SPDI
banks are subject to strict regulatory requirements and oversight, helping to
ensure that digital assets are securely stored and protected. This increased
security and protection is especially important given the high value and volatility
of many digital assets.

The introduction of SPDI banks in Wyoming has also helped to promote
innovation and growth within the blockchain industry. By providing a secure and
regulated framework for financial services related to digital assets, SPDI banks
have helped to reduce barriers to entry for new entrants in the industry. This, in
turn, has helped to foster innovation and competition within the industry by
driving the development of new products and services related to digital assets.
Other states are following the footsteps of Wyoming. The state of Nebraska
recently passed a law that creates a state bank charter for depository
institutions.\textsuperscript{70} These would be similar to the SPDI banks in Wyoming and will
deal primarily with cryptocurrencies.\textsuperscript{71} Similarly, the Texas Department of
Banking has approved its state-chartered banks to store cryptocurrencies for their
clients.\textsuperscript{72}

In addition, Wyoming passed the Blockchain Regulatory Sandbox Act,
which provides a safe harbor for blockchain-related businesses to test new

\textsuperscript{66} Id.
\textsuperscript{67} Id.
\textsuperscript{68} Id.
\textsuperscript{69} Id.
\textsuperscript{70} Nate DiCamillo, \textit{Nebraska Legislature Approves Framework for Digital Asset Banks},
\textsuperscript{71} Id.
\textsuperscript{72} Charles G. Cooper, Commissioner, \textit{Industry Notice 2021-03: Authority of Texas State-
Chartered Banks to Provide Virtual Currency Custody Services to Customers}, TEX. DEP’T BANKING
products and services without running afoul of existing regulatory requirements. Under the law, businesses can apply for a permit to operate in the sandbox for a period of up to two years. During this time, the business is exempt from certain state laws and regulations, provided that it complies with the conditions of the permit.

Another important piece of legislation passed in Wyoming in 2019 is the Corporate Stock-Certificate Tokenization Act (CSCTA), which allows for the issuance of tokenized stock certificates. The law enables corporations to issue shares of stock in the form of digital tokens, which can be transferred and traded on a blockchain. The CSCTA allows for more efficient and transparent trading of securities, as well as potentially reducing the costs associated with traditional stock issuance and trading.

Further, Wyoming was the first state to pass legislation recognizing Decentralized Autonomous Organizations (DAOs) as legal entities in 2019. DAOs are a new and innovative way of organizing and running businesses. A DAO is a digital organization that uses blockchain technology to automate decision-making and governance processes. Wyoming has taken a lead in regulating DAOs, recognizing the potential of this new form of organization for promoting innovation and economic growth.

The Wyoming DAO law provides a clear legal framework for the formation and operation of DAOs, allowing them to operate within the state and providing legal certainty for investors and other stakeholders. Under the Wyoming DAO law, a DAO is defined as “a digital entity that is organized based on rules encoded as computer programs or smart contracts and that uses a distributed ledger or blockchain to maintain and verify its operations.”

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Id.

Id.

See H.B. 185, 65th Leg., Budget Sess. (Wyo. 2019).

Id.

Id.


Id.

Samuel D. Brunson, Standing on the Shoulders of LLCs: Tax Entity Status and Decentralized Autonomous Organizations, 57 GA. L. REV. 603, 603 (2023) (“Since the formation of the first decentralized autonomous organization (DAO) in 2016, their use has exploded. Thousands of DAOs now try to take advantage of smart contracts to solve a problem that plagues business entities: the gulf between ownership and management.”).
recognizes that a DAO is a distinct legal entity that can enter into contracts, hold assets, and sue and be sued in its own name.83

The Wyoming DAO law also outlines clear guidelines for the governance and decision-making processes of DAOs.84 DAOs are required to have a written operating agreement that sets out the rules for decision-making, voting, and other governance processes.85 The operating agreement must be stored on a blockchain or other distributed ledger and must be accessible to all members of the DAO.86

One of the key benefits of the Wyoming DAO law is the legal certainty it provides for investors and other stakeholders.87 By recognizing DAOs as legal entities, the law allows investors to hold ownership in the DAO and participate in decision-making processes which, in turn, promotes investment in innovative new businesses and helps to support economic growth and job creation.88

Wyoming’s blockchain legislation has had a significant impact on the industry, both within the state and beyond. The state has become known as a hub for blockchain-related businesses, with companies such as Kraken and IOHK setting up operations in the state.89 In addition, the legislation has helped to create a more supportive environment for blockchain startups, with a number of incubators and accelerators opening up in Wyoming in recent years.90

However, there have also been criticisms of Wyoming’s blockchain legislation. Some have argued that the state’s approach to regulatory exemptions for certain types of digital tokens could create a “wild west” environment, with

83 See Cathy Hackl, What Are DAOs and Why You Should Pay Attention, FORBES (June 1, 2021, 8:00 AM) https://www.forbes.com/sites/cathyhackl/2021/06/01/what-are-daos-and-why-you-should-pay-attention/?sh=492852e7305f (noting that Bitcoin is generally considered to be the first fully functional DAO but also noting that DAOs can operate in much more complex settings); see also Kat Mustatea, Meet Plantoid: Blockchain Art with a Life of its Own, FORBES (Jan. 31, 2018, 12:50 PM), https://www.forbes.com/sites/katmustatea/2018/01/31/meet-plantoid-blockchain-art-with-a-life-of-its-own/?sh=6f668a8f3f64 (discussing a DAO that facilitates art).
85 Id.
86 Id.
87 Id.
90 See Table 1 for the legislation proposed and approved by Wyoming legislators during the years 2018–2021.
little oversight or protection for investors.\textsuperscript{91} In addition, some have expressed concern that the state’s regulatory framework could conflict with federal laws and regulations, particularly in the area of securities regulation.\textsuperscript{92} Further, some states have proposed a state cryptocurrency which might pose constitutional concerns.\textsuperscript{93} In these states, including Wyoming, cryptocurrencies are recognized by law to settle both public and private debts.\textsuperscript{94}

Despite these criticisms, Wyoming’s approach to blockchain regulation has been widely praised by industry participants and policymakers alike. The state’s focus on providing regulatory clarity and support for blockchain-related businesses has been viewed as a model for other states to follow. As the blockchain industry continues to grow and evolve, Wyoming will likely continue to play a leading role in shaping the regulatory landscape for the industry in the United States.

However, the regulatory landscape for blockchain and crypto assets is far from settled. The lack of uniformity in state laws has created a patchwork of regulations that can be difficult for businesses and investors to navigate. In addition, the federal government has yet to provide clear guidance on how it intends to regulate the industry, leading to further uncertainty. As explained below, the Uniform Law Commission (ULC) might play an active role in standardizing the crypto assets regulatory framework across states, which can help promote consumer protection and reduce regulatory uncertainty for businesses operating in the crypto asset industry.

\begin{footnotes}

\footnote{92} \textit{Id.} at 65.

\footnote{93} Ben Schreckinger, \textit{A Crypto Breakthrough? Western States Consider Taking Digital Currency: Proposals in Wyoming and Arizona to Accept Tax Payments in Bitcoin and Other Cryptocurrencies Would Undermine the Dollar’s Unique Status}, \textit{POLITICO} (Feb. 1, 2022, 4:30 AM), https://www.politico.com/news/2022/01/31/crypto-wyoming-arizona-tax-payments-00003910. Article I, Section 8 of the Constitution states that “Congress shall have Power . . . To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures.” \textit{U.S. CONST.} art. I, § 8. This power has been interpreted by the Supreme Court to give the federal government exclusive control over the money supply. \textit{See} M’Culloch v. Maryland, 17 U.S. 316 (1819). By allowing tax payments in cryptocurrencies, states might be violating the federal government’s exclusive power to coin money and regulate its value.

\end{footnotes}
III. REGULATORY CHALLENGES: RISK, ILLEGAL ACTIVITIES, FRAUD, AND LACK OF UNIFORMITY

The regulation of blockchain technology presents several challenges for policymakers and regulators. One of the biggest challenges is how to strike a balance between fostering innovation and protecting consumers and investors. Blockchain technology has the potential to disrupt traditional financial services and create new business models, but it also poses risks to investors, such as the risk of fraud and money laundering. Regulators must ensure that blockchain companies comply with relevant laws and regulations, such as securities and anti-money laundering laws, while also providing a regulatory environment that fosters innovation and growth.

In addition, the anonymity and pseudonymity of blockchain transactions pose challenges for regulators. While blockchain technology provides a high degree of transparency and immutability, it also enables users to transact without revealing their identities. The anonymity in transactions makes it challenging for regulators to monitor and detect illegal activities, such as money laundering and terrorist financing, and to enforce relevant laws and regulations.

One area of particular concern for regulators and lawmakers is the potential for crypto assets to be used in illegal activities, such as money laundering or financing terrorism. To address these concerns, several states have passed laws requiring cryptocurrency exchanges to register with the state and adhere to anti-money laundering regulations. For example, in 2019, Texas passed a law requiring virtual currency exchanges to obtain a state license and comply with state anti-money laundering laws.95 New York has been a leader in this area, with its Department of Financial Services creating BitLicense in 2015, which requires companies involved in virtual currency business activities to obtain a license to operate in the state.96

The potential for fraud in the crypto industry poses another area of concern for regulators. To address this issue, several states have passed laws requiring businesses involved in the industry to disclose certain information to their customers, such as the risks associated with investing in crypto assets or the fees charged for trading. For example, in 2020, the State of California passed a law requiring businesses involved in virtual currency transactions to disclose certain information to their customers, including the risks associated with investing in crypto assets and the fees charged for trading. Other states, such as

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95 Carlo D’Angelo & Carlos Garcia, Digital Asset Crime: Are We Still Early?, STATE BAR TEX. (May 2023), https://www.texasbar.com/AM/Template.cfm?Section=articles&ContentID=60084&Template=/CM/HTMLDisplay.cfm#:~:text=If%20you%20spend%20enough%20time,mass%20adoption%20is%20very%20much.

96 See Adelman & Strobel, supra note 43.
New Jersey and Rhode Island, have passed similar laws requiring the disclosure of information to customers.

Lack of uniformity poses another challenge in blockchain laws. While the Uniform Law Commission finalized the Uniform Regulation of Virtual–Currency Businesses Act (URVCBA) in 2017 and the Uniform Supplemental Commercial Law for the Uniform Regulation of Virtual–Currency Businesses Act (Supplemental Act) in 2018, which proposes uniformity in regulation among the states in the U.S., it is not fully adopted across the nation. Further, the global nature of blockchain technology requires greater international coordination and cooperation among regulators to ensure that blockchain companies can operate in a consistent and predictable regulatory environment. Without international harmonization, blockchain companies may face a patchwork of regulations that vary significantly across different jurisdictions, hindering their ability to operate and innovate. Hence, to promote continuous innovation in the blockchain space, there is a need for international synchronization in blockchain regulation.

IV. RECENT GLOBAL DEVELOPMENTS IN BLOCKCHAIN REGULATION

In recent years, there have been several significant developments in blockchain regulation. In the United States, the SEC has taken a more proactive approach to regulating cryptocurrencies and ICOs. The SEC has issued guidance on the application of securities laws to cryptocurrencies and ICOs and has taken enforcement actions against companies that have violated securities laws. In addition, the Financial Stability Oversight Council (FSOC), a regulatory body established after the 2008 financial crisis, has been studying the potential risks posed by blockchain technology to financial stability.

In the European Union (EU), the General Data Protection Regulation (GDPR) has had a significant impact on blockchain technology. The GDPR, which came into effect in 2018, requires companies to obtain explicit consent from individuals before collecting and processing their personal data. This has posed challenges for blockchain applications, as the immutability of blockchain transactions makes it difficult to delete or modify personal data once it has been

99 Id.
recorded on the blockchain. The European Blockchain Partnership, a collaboration between several EU member states, has been working to address these challenges and develop a regulatory framework for blockchain applications.

In Asia, China has taken a more active approach to blockchain regulation in recent years. In 2019, the government introduced a new cryptocurrency law that provides a legal framework for the use of cryptocurrency in China, which includes blockchain technology. The law requires companies to obtain government approval before using cryptocurrency and imposes strict penalties for violations. In addition, the People’s Bank of China, the country’s central bank, has been working on developing its digital currency, which is based on blockchain technology.

A. The TerraUSD Debacle: What Went Wrong and What We Can Learn

The collapse of the TerraUSD (UST) stablecoin in May 2022 was one of the largest cryptocurrency crashes in history. The event has led to calls for increased regulation of stablecoins, which are digital assets that are designed to maintain a stable value relative to another asset, such as the US dollar.

UST, a stablecoin pegged to the value of the US dollar, was launched in 2019 by the Terra blockchain network. UST was intended to be a reliable, decentralized, and secure digital asset that could be used for transactions and as a store of value. The UST stablecoin was designed to maintain a value of $1 by using a complex algorithm that relied on the price of another cryptocurrency,
Luna.\textsuperscript{110} When the price of Luna began to fall in May 2022, it triggered a sell-off in TerraUSD, which caused its value to drop below $1. This led to further selling, which caused the value of TerraUSD to fall even further.\textsuperscript{111}

There are several factors that contributed to the collapse of UST. Terraform Labs, the creator of UST, did not provide enough information about how the TerraUSD system worked, which made it difficult for investors to understand the risks involved.\textsuperscript{112} One factor was the large amount of short selling\textsuperscript{113} that was taking place against UST.\textsuperscript{114} The Terra ecosystem was a decentralized finance (DeFi) ecosystem that used UST as its native currency.\textsuperscript{115} The DeFi protocols in the Terra ecosystem were heavily dependent on UST, and when UST lost its peg to the dollar, traders started selling it in large volumes. The lack of buyers and increase in short-selling activity put downward pressure on the price of UST.\textsuperscript{116}

The collapse of UST has raised concerns about the stability of stablecoins.\textsuperscript{117} The event led to a loss of confidence in stablecoins, which in turn caused the prices of other stablecoins to fall.\textsuperscript{118} The collapse of TerraUSD has also led to calls for increased regulation of stablecoins.\textsuperscript{119} The current regulations at the federal level have proven to be insufficient to address this type of failure in a stablecoin. To mitigate stability concerns, perhaps the Wyoming law on SPDI banks could be revised and adopted to regulate the issuers of stablecoins. Specifically, stablecoins should be issued by regulated entities and should be backed by sufficient reserves. Further, stablecoins should also be subject to regular audits. These proposed regulations will ensure transparency and reduce risk in the operation of a stablecoin.

\textsuperscript{110} Id.
\textsuperscript{111} Id.
\textsuperscript{112} Id.
\textsuperscript{113} Short selling is when an investor borrows a cryptocurrency and sells it, hoping to buy it back at a lower price in the future.
\textsuperscript{114} JS HELD, \textit{supra note} 1088, at 7.
\textsuperscript{115} Id. at 6.
\textsuperscript{116} Id. at 7.
\textsuperscript{118} Id. at 49.
B. Systemic Risk Created by TerraUSD Crash: Collapse of FTX

The collapse of Luna created risks for the holders of the cryptocurrency Luna and investors in Terraform Labs. One such company that went bankrupt following the crash in Luna was the leading crypto exchange, FTX.\(^\text{120}\)

FTX was founded in 2019 by Sam Bankman-Fried, a 29-year-old cryptocurrency entrepreneur.\(^\text{121}\) Bankman-Fried had previously founded Alameda Research, a cryptocurrency trading firm. FTX was initially based in Hong Kong, but it moved to the Bahamas in 2020.\(^\text{122}\) FTX quickly became one of the largest cryptocurrency exchanges in the world.\(^\text{123}\) The company offered a variety of features that were popular with cryptocurrency traders, including a high trading volume, low fees, and a variety of trading options. FTX also offered its own cryptocurrency, FTT, which was used to pay for fees on the exchange.\(^\text{124}\)

In November 2022, FTX began to experience a liquidity crisis.\(^\text{125}\) FTX was a major holder of Luna and was also a major lender to Terraform Labs, the company that created Luna. When Luna crashed and Terraform Labs defaulted on its loans to FTX, FTX’s liquidity crisis was exacerbated.\(^\text{126}\) Further, the collapse of Luna led to a decline in the price of Bitcoin and other cryptocurrencies.\(^\text{127}\) This decline in the price of cryptocurrencies led to a decrease in trading volume on FTX and the withdrawal of funds by large investors, which

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\(^{122}\) Id.

\(^{123}\) Id.

\(^{124}\) Id.


\(^{126}\) See Lee Reiners & Sangita Gazi, Wanted: A Prudential Framework for Crypto-Assets, ARK. L. REV. (forthcoming 2023) (manuscript at 2–3) (on file with author) (“The collapse of cryptocurrency exchange FTX in November 2022 is the most significant moment in cryptocurrency history. While many commentors [sic] referred to FTX’s failure as ‘crypto’s Lehman moment,’ the fallout was largely contained within the cryptocurrency ecosystem and there was minimal spillover into the traditional financial system.”).

further contributed to FTX’s liquidity crisis.\textsuperscript{128} As the liquidity crisis worsened, FTX was forced to suspend withdrawals from its platform. This led to a panic among investors, and many people began to sell their FTT tokens.\textsuperscript{129} The price of FTT plummeted, and FTX was forced to file for bankruptcy.\textsuperscript{130}

The collapse of FTX has also raised concerns about the regulation of cryptocurrency exchanges. Currently, there are no federal regulations for cryptocurrency exchanges in the United States. This lack of regulation has allowed cryptocurrency exchanges to operate with little oversight, and it has made it difficult for investors to protect themselves from fraud.

C. The Rise and Fall of Silicon Valley Bank: Spillover of Systemic Risk Created by TerraUSD and FTX Failures

The crypto risk story that started with the failure of TerraUSD, followed by the collapse of FTX, has continued on causing a major banking crisis. In fact, following the bankruptcy of FTX, Senators Elizabeth Warren (D-MA) and Tina Smith (D-MN) sent letters to the heads of the Board of Governors of the Federal Reserve System (Fed), Federal Deposit Insurance Corporation (FDIC), and Office of the Comptroller of the Currency (OCC) expressing their concern “over ties between the banking industry and cryptocurrency firms” and asking detailed questions regarding banks’ exposure to crypto assets and how each agency evaluates “banks’ relationships with crypto firms” and “crypto-related activities.”\textsuperscript{131} The letters specifically mentioned the possibility of the failure of Silicon Valley Bank.\textsuperscript{132}

Silicon Valley Bank (SVB), founded in 1983, focused on providing financial services to technology companies in Silicon Valley.\textsuperscript{133} SVB quickly became successful, and by the early 2000s, it was one of the largest banks in the United States.\textsuperscript{134} The bank expanded into newer markets and opened branches in

\textsuperscript{128} Id.
\textsuperscript{129} Id.
\textsuperscript{130} Id.
\textsuperscript{132} Id.
\textsuperscript{134} Id.
New York City and London, and it also began to invest in new technologies, including crypto assets. The bank invested in large cryptocurrencies such as Bitcoin and Ethereum, and it also invested in a number of smaller crypto projects. SVB also invested heavily in one of the largest crypto exchanges, FTX. SVB’s investment in crypto assets paid off as the crypto markets went through a phase of significant bull run. SVB invested the returns generated on its portfolio in long-term treasury bonds.

However, SVB was hit with losses following the dramatic collapse of crypto exchange FTX in late 2022. Further, the price of crypto assets plummeted due to the fall of stablecoin Luna and FTX bankruptcy. SVB’s investment in FTX and the decline in crypto prices coupled with rising interest rates caused billions of dollars in losses to SVB on its investments. SVB became insolvent, and the bank was forced to file for bankruptcy. This event was quickly followed by the failure of another crypto-friendly bank, Signature.

The collapse of SVB and Signature banks is a cautionary tale about the risks of investing in crypto assets. Crypto assets are a new and volatile asset class, and the banks investing in such assets need different regulations than traditional banks. Wyoming’s SPDI bank regulation can provide some guidance. To strike the proper balance between regulation and stability, perhaps such banks should be 100% reserve banks and should not be allowed to operate in consumer banking.

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137 Id.


140 Id.

141 See Reiners & Gazi, supra note 126 (manuscript at 5) (“Bank regulators have little visibility into the nature and extent of banks’ exposure to crypto-assets. One of the few authoritative data sources on the subject comes from the Basel Committee on Banking Supervision (BCBS), which launched a voluntary crypto-asset data collection template based on 2021 year-end data. Only 19 internationally active banks, out of 182 banks in the Basel III monitoring exercise, reported data, and the BCBS acknowledges that not all 19 reporting banks ‘consistently applied the same approach to classifying any exposures.’”).
D. Towards a More Regulated Frontier

Wyoming has emerged as a leader in the adoption of blockchain technology and the development of a regulatory framework for crypto assets. The state’s legislative efforts have helped to create a more supportive environment for blockchain-related businesses, with a focus on providing regulatory clarity and reducing barriers to entry. The passage of the Wyoming Money Transmitters Act in 2018 provided a legal framework for the issuance, sale, and transfer of digital assets, while subsequent legislation in 2019, such as the Wyoming Utility Token Act and the Blockchain Regulatory Sandbox Act, helped to provide further regulatory clarity and support for the industry.

Looking ahead, it is likely that Wyoming will continue to play a leading role in shaping the regulatory landscape for the blockchain industry in the United States. As the industry continues to grow and evolve, it will be important for lawmakers and regulators to balance the need for regulatory clarity and investor protection with the desire to promote innovation and encourage the growth of the industry.

The need for different regulations for crypto assets is highlighted by the recent failure of stablecoins, crypto exchanges, and crypto-friendly banks. Wyoming laws not only provide clarity and regulation certainty for blockchain businesses, but they can provide a strong foundation for building regulations at the federal level. The ULC should take the leadership in unifying the regulations across states, which would promote innovation and foster investment in this industry.

V. CONCLUSION

Blockchain technology has the potential to transform the financial industry and create new business models, but it also presents significant regulatory challenges for policymakers and regulators. The regulatory landscape for blockchain technology varies significantly across different jurisdictions, and there is a need for greater international coordination and cooperation to ensure that blockchain companies can operate in a consistent and predictable regulatory environment. Regulators must strike a balance between fostering innovation and protecting consumers and investors and must develop a regulatory framework that is flexible enough to adapt to the rapidly evolving blockchain industry. In the coming years, it will be important for regulators to continue to monitor the development of blockchain technology and to take a proactive approach to regulate this rapidly evolving sector.
<table>
<thead>
<tr>
<th>YEAR</th>
<th>BILL</th>
<th>TITLE</th>
<th>DESCRIPTIVE SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>HB070</td>
<td>Open Blockchain Tokens Exemption</td>
<td>Defines “open blockchain token.” These are utility tokens that are not marketed as an investment.</td>
</tr>
<tr>
<td>2018</td>
<td>HB010</td>
<td>Electronic Corporate Records</td>
<td>Authorizes Wyoming corporations to use distributed and electronic means to create and maintain corporate records as long as they are also convertible into written form. Use a data address associated with a private key to identify a shareholder, provide requisite notices, arrange lists, and accept votes.</td>
</tr>
<tr>
<td>2018</td>
<td>HB016</td>
<td>Limited Liability Companies - Series LLCs</td>
<td></td>
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<tr>
<td>2018</td>
<td>SF011</td>
<td>Property Taxation Digital Currencies</td>
<td>Exempts virtual currencies from property taxation where “virtual currency” is any type of digital representation of value that is used for exchange, accounting, or to store value; and is not recognized as legal tender.</td>
</tr>
<tr>
<td>2019</td>
<td>HB057</td>
<td>Financial Technology Sandbox Act</td>
<td>Waiver of certain regulations to permit the testing of innovative financial products and services through a designated sandbox program for, up to, 3 years.</td>
</tr>
<tr>
<td>2019</td>
<td>HB062</td>
<td>Wyoming Utility Token - Property Amendments</td>
<td>Amends and clarifies 2018 HB0070 about the exemption of open blockchain tokens from securities regulations.</td>
</tr>
<tr>
<td>2019</td>
<td>HB070</td>
<td>Commercial Filing System</td>
<td>Authorizes the Secretary of State to develop and implement a blockchain-based filing system for business and commercial filings otherwise required by law to be filed, including UCC financing statements.</td>
</tr>
</tbody>
</table>
2019 HB0074 Special Purpose Depository Institutions (SPDI) Creates a new form of a financial institution to provide necessary financial services to blockchain innovators, which institution must maintain 100% of its depository liabilities as liquid assets and is prohibited from all kinds of commercial lending. Requires the institution to maintain a contingency account into which depositors must make payments which shall, after three years, be maintained at no less than 2% of the institution’s overall liabilities. The institution can only provide services to bona fide businesses formed by at least 5 persons who maintain a minimum deposit of $5,000 and provide sufficient evidence to enable compliance with KYC/AML regulations. Specifies information to be included in the articles of incorporation, and that the capital stock shall be no less than $5 million.

2019 HB0113 Special Electric Utility Agreements Utility use case.

2019 HB0185 Corporate Stock Certificate Tokens Authorizes a business entity to issue stock certificates in the form of electronic certificate tokens as long as it contains all the information required by statute and is entered into a blockchain or a secure, auditable database.

2019 SF0028 Banking Technology and Stock Revisions Authorizing banks to use electronic corporate records and issue any type of stock authorized for corporations under existing law, including non-voting shares. Shareholder identity may be maintained using data addresses associated with a private key.

2019 SF0125 Digital Assets Existing Law Establishes the legal nature of “digital assets” within existing law, divides them into three categories of intangible personal property, and classifies them within the UCC as: Digital Consumer Assets: Treated as general intangibles under UCC Article 9 of W.S. 34; Digital Securities: Treated as securities & investment property under UCC Articles 8 and 9 of W.S. 34; and Virtual Currencies: Treated as money under UCC Article 9 of W.S. 34. Under W.S. 34.1-8-102(a)(ix) digital assets may be treated as financial assets pursuant to a written agreement with the owner of the digital asset. Defines “custodial services” as the safekeeping
and management of customer currency and digital assets through the exercise of fiduciary and trust powers as a custodian, including fund administration and the execution of customer instructions.

<table>
<thead>
<tr>
<th>Year</th>
<th>Bill Number</th>
<th>Bill Title</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>HB0041</td>
<td>Disclosure of private cryptographic keys</td>
<td>No person shall be compelled to produce a private key or make a private key known to any other person in any civil, administrative, legislative, or other proceeding in this state.</td>
</tr>
<tr>
<td>2020</td>
<td>HB0043</td>
<td>Digital representation tokens</td>
<td>An act relating to digital assets; defining the rights, duties, and obligations associated with digital representation tokens; providing exceptions.</td>
</tr>
<tr>
<td>2020</td>
<td>SF0047</td>
<td>Digital assets-statutory amendments</td>
<td>Amending the scope of authorized custodial services; clarifying the application of digital asset statutes; clarifying the duty of digital asset custodians to pay supervisory fees; clarifying the jurisdiction of Wyoming courts to hear cases related to digital assets.</td>
</tr>
<tr>
<td>2021</td>
<td>HB0043</td>
<td>Digital assets-amendments</td>
<td>Amending the definition of digital asset; amending provisions relating to the nature of digital assets under commercial law; amending security interest provisions relating to digital assets; specifying the application of commercial law to specific types of digital assets; clarifying provisions relating to custody of digital assets by banks; establishing that certain digital asset provisions are consumer protection statutes for commercial law purposes.</td>
</tr>
<tr>
<td>2021</td>
<td>HB0133</td>
<td>Online sports wagering</td>
<td>Authorizing online sports wagering; providing for regulation by the Wyoming gaming commission; imposing fees; requiring rulemaking; creating an account; providing for the collection and distribution of revenues from online sports wagering to the state; providing for a continuous appropriation; creating penalties; specifying that fantasy sports contests are not gambling.</td>
</tr>
<tr>
<td>2021</td>
<td>SF0038</td>
<td>Decentralized autonomous organizations (DAO)</td>
<td>Providing for the formation and management of decentralized autonomous organizations; providing definitions.</td>
</tr>
<tr>
<td>2021</td>
<td>SF0105</td>
<td>Disclosure of private cryptographic keys</td>
<td>Specifying disclosure obligations applicable to private cryptographic keys.</td>
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