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U.S. Cryptocurrency Regulation: A Slowly Evolving State of Affairs

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ARTICLESU.S. CRYPTOCURRENCY REGULATION: A
SLOWLY EVOLVING STATE OF AFFAIRS*Dr. Aaron Poynton*

After nearly a decade and a half since the creation of the first cryptocurrency, crypto regulation in the United States (“U.S.”) is fragmented, with different measures taken at the federal and state levels and even within and amongst agencies. This sluggish speed is not necessarily a surprise as government regulation has always chased rapid advancements in technology and associated consumer and market behavior changes. However, this is a precarious position for the U.S.—and the world—as the U.S. is a leader in the global financial community, the high concentration of crypto-based wealth, and economies’ increasingly interconnected and interdependent nature. This paper examines the history of currency, features of cryptocurrency, especially those features which make it prone to regulation, the U.S.’ efforts to regulate cryptocurrency, reviewing current and proposed regulatory efforts, and lastly, concludes with an analysis of the research and provides suggestions to lawmakers and regulators. The central theme of the analysis will opine that cryptocurrencies, and their tangencies, such as the crypto-ecosystem they live within, increasingly pose a systematic risk to global financial markets, and little has been accomplished to protect against this from a regulatory perspective. Therefore, there is an imminent need for regulatory action, clarification, and harmonization. Nevertheless, it is essential to maintain a balance in regulatory measures, ensuring that they do not stifle the nascent crypto markets and the flourishing of financial technology innovation.

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U.S. CRYPTOCURRENCY REGULATION:¹ A SLOWLY EVOLVING STATE OF AFFAIRS

*Dr. Aaron Poynton**

INTRODUCTION & BACKGROUND

Since the beginning of man and long before the establishment of the State, there has always been a need to exchange goods and services.² Before the concept of currency, it is believed that exchange was conducted through barter.³ Market participants, often fellow villagers, would directly exchange one good or service for another without a medium of exchange; for example, a farmer may exchange a dozen chickens for a pair of shoes from a shoemaker. However, this process was limiting and inefficient as it required a *double coincidence of wants*,⁴ did not provide transferability or divisibility, and had significant search, negotiation, and transaction costs.⁵ As a result, new mediums of exchange developed over time. Initially, commercial (non-State) mediums developed using commodities and rarities that could be easily traded—cowrie, shells, salt, gold, iron rings, and brass rods.⁶ For over 2,000 years, cities and empires traded this way without using coins or other standardized or government-issued currencies.⁷

Commodity mediums were eventually replaced in mid-600 B.C. with a form of *money*—a mutually accepted representation of value—its

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¹ In the United States, the term “regulation” is distinct from the term “law.” A law is passed by a legislative body where a regulation is an administrative agencies’ standards and rules that govern how laws will be enforced. Regulations, while not laws, have the force of law because they are adopted under authority granted by statutes and frequently include penalties for violations. In this paper, the term “regulation” includes both laws and regulations.

² See generally ADAM SMITH, *THE WEALTH OF NATIONS* (Bibliomania.com Ltd, 2002).

³ See David Graeber, *DEBT: THE FIRST 5,000 YEARS* 21 (Melville House Publ’n, 2001).

⁴ “Double coincidence of wants”: Each party must possess the exact good or be offering the exact service that the other party wants.

⁵ Scott A. Wolla, *Money and Inflation: A Functional Relationship*, FED. RSRV. BANK OF ST. LOUIS, PAGE ONE ECON. NEWSL. (March 2013).

⁶ See generally FELIX MARTIN, *MONEY: THE UNAUTHORIZED BIOGRAPHY* (NEW YORK, ALFRED A. KNOPF 2014). See also Paul Bohannon, *The Migration and Expansion of the Tiv.*, 24 AFR. J. OF THE INT’L AFR. INST. 2–16 (1954).

⁷ Ben Alsop, *Money*, London: The British Museum, Room 68.

tangible counterpart, *currency*.⁸ One of the earliest forms of currency, metal spade coins, was first used in Guanzhuang, China. Similarly, electrum coins (a naturally occurring mix of silver and gold) originated in Lydia, which now resides in central Turkey.⁹ Electrum coins were soon adopted as the State currency by Lydia's King Alyattes, who is often regarded as the originator of coinage.¹⁰ As states developed, there was a need for the government to collect revenue, so they adopted legal tender for citizens to pay taxes, fees, and fines. Currency issued and controlled by the state or central authority advanced, and today government-issued legal tender is the predominant source of currency.

Coins transitioned to paper currency during the Tang dynasty (618–907 AD) in China, eliminating the need to carry heavy strings of metallic coins.¹¹ Coins and paper currency were the primary means of exchange until the Song dynasty (960–1279 AD) when checks were introduced. This payment method later spread to Europe when trade with the Muslim world increased and Europeans began using checks themselves. Nevertheless, it took several hundred more years for the banking system to mature and checks to become ubiquitous. Checks had become the primary means of exchange in the U.S. by the mid-nineteenth century; by the 1950s, more than 28 million checks were written every day.¹²

While coins, paper money, and checks were the leading currency media over the past few centuries, several technological inventions revolutionized how money was exchanged. In the 1800s, the telegram was invented, which transformed long-distance communication. In 1871, Western Union introduced the electronic fund transfer (“EFT”) using the telegraph, marking the beginning of electronic money.¹³ Over the next

⁸ DAVID W. PERKINS, CONG. RSCH. SERV., R45427, CRYPTOCURRENCY: THE ECONOMICS OF MONEY AND SELECTED POLICY ISSUES (2020) [hereinafter PERKINS: CRYPTOCURRENCY]; MARTIN, *supra* note 6.

⁹ Alsop, *supra* note 7.

¹⁰ Jona Lendering, *Alyattes of Lydia*, LIVIUS, <https://www.livius.org/articles/person/alyattes/> (last updated April 21, 2020); *A Case for the World's Oldest Coin: Lydian Lion*, REID GOLDSBOROUGH, <https://rg.ancients.info/lion/article.html> (last visited Nov. 3, 2022).

¹¹ See generally John Pickering, *The History of Pape Money in China*, 1 J. AM. ORIENTAL SOC'Y 136, 136-42 (1871); Chelsea Allison, *Checking Out: A Brief History of Checks*, FIN, <https://fin.plaid.com/articles/checking-out-a-brief-history-of-checks/> (last visited May 6, 2022).

¹² *Id.*

¹³ Cecilia Hendrix, *6 Fascinating Things About Western Union's History*, W. UNION (Oct. 8, 2019), <https://www.westernunion.com/blog/en/6-fascinating-things-about-western-unions-history/>; Tim Ryan, *A Brief History of Western Union Money Transfer Services*, STREETDIRECTORY, https://www.streetsdirectory.com/travel_guide/161051/money_management/a_brief

century, Western Union's "wire" service became the leading means to send money instantly over long distances. Western Union implemented new technologies to improve speed and efficiencies as technology advanced, such as when the microwave radio beam system was introduced in 1964.¹⁴ Western Union's presence grew to a network of hundreds of thousands of locations in over 200 countries, serving many unbanked customers.¹⁵

In the second half of the twentieth century, a revolutionary development would forever disrupt the financial industry and later change the form of currency—the computer was invented. The computer is arguably the most significant invention—ever—and it marked the beginning of a new technological era. By 1983, *Time Magazine* named the computer its "Person of the Year," stating, "the entire world will never be the same."¹⁶ In that article, Harold Todd, Executive Vice President at First Atlanta Bank, predicted, "[m]anagers who do not have the ability to use a terminal within three to five years may become organizationally dysfunctional. That is to say, useless."¹⁷ Todd was right: the financial industry increasingly went electronic. Computers allowed financial transactions, such as currency exchange, to happen with speed, accuracy, and traceability. For example, the aforementioned 28 million checks processed daily in the 1950s grew to 49.5 *billion* checks processed in 1995 via automated electronic means.¹⁸ Moreover, computer advancements facilitated other innovative means of currency exchange, such as debit and credit cards, which far exceeded checks and automated clearing house ("ACH") payments.¹⁹

As electronic currency exchange grew, the use of cash declined. In most developed countries, their economies transitioned from all cash to a mix of cash, check, and traditional electronic exchange (debit, credit,

_history_of__western_union_money_transfer_services.html (last visited May 6, 2022).

¹⁴ *Id.*

¹⁵ Cecilia Hendrix, *6 Fascinating Things About Western Union's History*, WESTERNUNION (Oct. 8, 2019) <https://www.westernunion.com/blog/en/6-fascinating-things-about-western-unions-history/>.

¹⁶ Otto Friedrich, *The Computer Moves In*, TIME (Jan. 3, 1983) <https://content.time.com/time/subscriber/article/0,33009,953632-8,00.html>.

¹⁷ *Id.*

¹⁸ Allison, *supra* note 11.

¹⁹ In 2015 in the U.S., payments occurred via debit card (69.5 billion transactions worth \$2.56 trillion), credit card (33.8 billion transactions worth \$3.16 trillion), automated clearing house payment (23.5 billion transactions worth \$26.83 trillion), and check payment (17.3 billion payments worth \$26.83 trillion). DAVID W. PERKINS, CONG. RSCH. SERV., R45716, LONG LIVE CASH: THE POTENTIAL DECLINE OF CASH USAGE AND RELATED IMPLICATIONS 9 (2019) [hereinafter PERKINS: LONG LIVE CASH].

and ACH). In 2016, cash only accounted for 31 percent of all transactions in the U.S., and traditional electronic transactions accounted for 56 percent of transactions.²⁰ Although the use of cash has declined, some experts have repeatedly projected cash's obsolescence and disappearance. For example, when the Mondex machine and cards were initially rolled out in a 1995 trial, newspapers headlined, "Cash Died Today."²¹ However, despite its initial excitement, the trials ended without a nationwide launch of the service. Likewise, a 2019 report from the U.S. Congressional Research Service, titled "Long Live Cash," acknowledges the decline of cash but cites its robustness and staying power, stating, "[c]ash has a number of advantageous features that has made it a simple and robust payment system throughout most of human history. It is difficult to imagine conditions under which cash would be replaced entirely, and disappear from the economy, at least in the near future."²²

While currency exchange has evolved from coins to paper to checks to electronic, one feature has remained consistent throughout most of modern history—the currency exchanged has been *legal tender* and controlled by the government.²³ Any form of payment recognized by a government that is used to pay debts or financial obligations is considered legal tender. This includes not only taxes or other government payments, but all parties are generally obligated to accept the legal tender and settle debts.²⁴ Therefore, legal tender status gives the currency value because anyone who wishes to engage in basic economic activities must have and use this type of money. National currencies, such as the U.S. dollar, and multinational currencies, such as the Euro, are considered legal tender within their respective jurisdictions. Some countries with weak governments, institutions, or financial systems also use another country's currency as their legal tender, such as Panama with the U.S. dollar and South Georgia with the Sterling Pound. However, the government's exclusive control over the tender is more important than simply the recognition of legal tender.

In the U.S., Congress is granted the exclusive power by Article 1, Section 8 of the U.S. Constitution "[t]o coin Money, [and] *regulate the*

²⁰ PERKINS: LONG LIVE CASH, *supra* note 19, at 2.

²¹ Alsop, *supra* note 7.

²² PERKINS: LONG LIVE CASH, *supra* note 19, at 25.

²³ Although private banks did print their own currency before the 1930s, these banks were chartered by the United States Government, backed by U.S. treasury bonds, and were generally accepted to settle debts. Ben S. Bernanke, *A Century of US Central Banking: Goals, Frameworks, Accountability*, 27 J. ECON. PERSPECTIVES 3, 3-16 (2013).

²⁴ See PERKINS: CRYPTOCURRENCY, *supra* note 8 at 4.

*Value thereof.*²⁵ The Department of the Treasury creates and distributes coins and dollars to the public through its Bureau of Engraving and Printing. The Federal Reserve acts as the central bank and creates monetary policy. Its primary responsibilities include implementing national monetary policy, supervising and regulating banks, ensuring financial stability, and providing banking services.²⁶ Likewise, in Great Britain, the money supply is controlled by the Bank of England (“BOE”), and the Monetary Policy Committee (“MPC”) makes monetary policy decisions.²⁷ In essence, the government has a powerful monopoly on money, which was a driving factor leading to the creation of cryptocurrencies. This control became especially important as governments transitioned from commodity-based currencies with an inherent value to currency where value is derived from government decree.

While the first government coins used for currency from China and Lydia had intrinsic value because they were created from a commodity, such as metal or Electrum, this had limited scalability and the concept could not be transferred to paper currency. Instead, governments began to issue currency that was backed by a commodity. For example, the United Kingdom adopted a gold standard for the Sterling in 1717. The gold standard backed the government-issued paper and coins with a promise to pay the currency holder a certain amount of gold on demand, and it established a fixed price for gold at which it buys and sells gold.²⁸ Master of the Mint, Sir Isaac Newton, established the gold price of £4.25 per fine ounce, which lasted two centuries.²⁹ This practice of backing a currency with gold spread beyond England to France, Germany, Switzerland, Belgium, and the U.S. during what is known as the “classical gold standard era.”³⁰ In the United States, a bimetallic gold and silver standard existed in its early days, but the U.S. transitioned to an all-gold standard in 1879.³¹ The *Gold Standard Act* of

²⁵ U.S. CONST. art. 1, § 8 (emphasis added).

²⁶ Adam Hayes, *Federal Reserve: What It Is and How It Works*, INVESTOPEDIA (June 7, 2022), <https://www.investopedia.com/terms/f/federalreservebank.asp>.

²⁷ *Monetary Policy*, BANK OF ENGLAND, <https://www.bankofengland.co.uk/monetary-policy> (last visited May 12, 2022).

²⁸ Chris Parker, *A Short History of the British Pound*, WORLD ECON. F., (June 27, 2016), <https://www.weforum.org/agenda/2016/06/a-short-history-of-the-british-pound/>.

²⁹ *Id.*

³⁰ James Chen, *Gold Standard: Definition, How It Works, and Example*, INVESTOPEDIA (updated August 25, 2022), <https://www.investopedia.com/terms/g/goldstandard.asp>.

³¹ CRAIG K. ELWELL, CONG. RSCH. SERV., R41887, BRIEF HISTORY OF THE GOLD STANDARD IN THE UNITED STATES 6 (2011).

1900 fixed the value of a dollar to the equivalent of \$20.67 per troy ounce.³² Most of this gold was stored at the Fort Knox Bullion Depository, where it held up to 650 million ounces of gold in reserve, which is the equivalent of \$1.2 trillion in April 2022.³³

However, in the early 1930s, a historic shift occurred that unwound millennia of convention. No longer was a medium of exchange either made from or backed by a commodity—*fiat money* was introduced. The term “fiat” comes from the Latin “*fieri*,” which means an arbitrary act or “a decree, command, order.”³⁴ During the Great Depression, most developed countries that followed the gold standard began to abandon it for a fiat currency. The gold standard was abandoned due to its volatility and the constraints it imposed on governments.³⁵ Governments were hampered in pursuing expansionary policies during the Depression by maintaining a fixed exchange rate.³⁶ Japan was the first large economy to make the switch in 1931, followed by much of Europe in the following years. The United States partially followed suit in 1933, eventually abandoning the gold standard in 1973.

Today, the gold standard is not used by any major government—currency does not have an intrinsic value and is not backed by a physical commodity, such as gold or silver. Instead, its value is derived from the “full faith and credit” of the issuing government. The U.S. Congressional Research Service notes, “[t]he currency is neither valued in, backed by, nor officially convertible into gold or silver.”³⁷ The history described above of currency and technology created the perfect conditions for developing cryptocurrencies. Computing power has advanced exponentially since the invention of the computer, facilitating innovation in the financial markets. Additionally, the transition from the gold standard to a fiat currency has left a void for a medium of exchange that an omnipotent government does not control, paving the way for the adoption of cryptocurrencies. Today, despite its novelty, significant

³² *Id.* at 10.

³³ See generally *Fort Knox Bullion Depository*, U.S. MINT, <https://www.usmint.gov/about/mint-tours-facilities/fort-knox> (last accessed May 9, 2022).

³⁴ See generally *Fiat*, ETYMYONLINE, <https://www.etymonline.com/word/fiat> (last visited May 13, 2022).

³⁵ See BARRY J. EICHENGREEN, *GLOBALIZING CAPITAL: A HISTORY OF THE INTERNATIONAL MONETARY SYSTEM*, 1-85, (Princeton Univ. Press 3rd ed. 2019), for an overview of the volatility of the gold standard.

³⁶ *Id.*

³⁷ ELWELL, *supra* note 31, at Summary.

risks, and lack of regulation, an estimated 27 million Americans and 2.3 million Britons own cryptocurrency.³⁸

The 2008 Global Financial Crisis eroded confidence and trust in banks and financial institutions and was a catalyst for introducing cryptocurrencies.³⁹ It appears to be more than a mere coincidence that Bitcoin, the inaugural and preeminent cryptocurrency, was introduced in January 2009 at the pinnacle of the Global Financial Crisis. While Bitcoin and other cryptocurrencies continue to advance, government regulators have moved to begin regulating them. However, regulatory efforts have been disjointed and uncoordinated as regulators strive to comprehend the innovative developments in cryptocurrency and its associated implications. Government proponents of cryptocurrency are going even further, exploring the adoption of cryptocurrencies as a central bank product, such as a Central Bank Digital Currency (“CBDC”). While the history of cryptocurrency is yet to be written, in less than a decade, it has accelerated from a little-known, niche technology to a mainstream financial asset that is primed for regulatory intervention before it expands further and poses a systemic financial risk.

Having a thorough understanding of the historical and contextual backdrop of traditional currency that prompted the inception of cryptocurrencies, the following section of this paper will explore the features of cryptocurrency in-depth, especially those features which make it prone to regulation. In the next section, this paper will examine the U.S.’s efforts to regulate cryptocurrency, reviewing current and proposed regulatory efforts. Lastly, this paper will conclude with an analysis of the research and provide suggestions to lawmakers and regulators. The fundamental premise of this analysis is to assert that cryptocurrencies, along with their related components such as the crypto-ecosystem, are progressively posing a systemic risk to global financial markets, and little has been accomplished to protect against this from a regulatory lens. Therefore, there is an imminent need for regulatory action, clarification, and harmonization. Nevertheless, it is essential to maintain a balance in regulatory measures, ensuring that they do not stifle the nascent crypto markets and the flourishing of financial technology innovation. While it is imperative to regulate the

³⁸ *Cryptocurrency Across the World: Global Crypto Adoption*, TRIPLEA, <https://triplea.io/crypto-ownership-data/> (last visited Nov. 11, 2022); Rupert Jones, *About 2.3m Britons Hold Cryptocurrencies Despite Warnings of Risk*, THE GUARDIAN (June 12, 2021, 11:50 EDT), <https://www.theguardian.com/technology/2021/jun/17/about-23m-britons-hold-cryptocurrencies-despite-warnings-of-risk>.

³⁹ Timothy C. Earle, *Trust, Confidence, and the 2008 Global Financial Crisis*, 29 RISK ANALYSIS, 6 (2009).

cryptocurrency sector, it must be acknowledged that the benefits of innovation cannot be overlooked.

I. FEATURES OF CRYPTOCURRENCY

Cryptocurrency, sometimes called *virtual currency* or *digital currency*, is “a digital currency in which transactions are verified and records maintained by a decentralized system using cryptography, rather than by a centralized authority.”⁴⁰ The key features of a cryptocurrency are 1) digital (i.e., no physical currency), 2) decentralized (i.e., no central authority), 3) secured by cryptography (i.e., encryption algorithm), and 4) managed on a distributed ledger (i.e., peer-to-peer network). Other characteristics of some types of cryptocurrency include a limited supply (i.e., scarcity) and backing or pegging of the cryptocurrency to fiat money or an exchange-traded commodity (e.g., stable coin). These features distinguish a cryptocurrency from the ubiquitous fiat-money electronic cash, which is simply an electronic version of the government’s physical currency with its exact features, benefits, and drawbacks.

There are over 18,000 cryptocurrencies in circulation, and the global cryptocurrency market is valued at over \$1.28 trillion as of May 16, 2022.⁴¹ Despite the plethora of cryptocurrencies, Bitcoin, the first cryptocurrency, remains the most prominent and dominant crypto in 2022—accounting for about 45% of the market.⁴² However, stable coins, a type of cryptocurrency backed or pegged by an external reference, such as a fiat currency, are increasing in popularity and have snagged significant market share from Bitcoin in recent years. Stable coins also represent most of today’s trading volume: in May 2022, stable coin trading made up over 89% of the crypto market’s volume.⁴³ The stable coin Tether, which is pegged to the value of a U.S. dollar, made up nearly all of that volume.⁴⁴ Nonetheless, because of Bitcoin’s history, market dominance, and popularity, it will be used predominantly throughout this paper for examples, references, and illustrations.

⁴⁰ Rally Point, *Crypto 101: Everything You Need to Know...to Start*, RALLY POINT (May 16, 2022), <https://rallypoint.pr/crypto-101-everything-you-need-to-know/>; Mary Eltawil, *Why Cryptocurrency?*, AZREIA (Sept. 1, 2022), <https://azreia.org/chicago-title-agency/why-cryptocurrency/>.

⁴¹ See generally *Today’s Cryptocurrency Prices by Market Cap*, COINMARKETCAP, <https://coinmarketcap.com/> (last visited Nov. 8, 2022).

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

Bitcoin was introduced in early 2009 by Satoshi Nakamoto, a pseudonym for an unknown computer programmer or group of programmers.⁴⁵ The launch followed Nakamoto's momentous white paper, *Bitcoin: A Peer-to-Peer Electronic Cash System*, which made a case for creating a new online payment system and described its processes. Blockchain is the core technology at the heart of Bitcoin: a distributed database known as a distributed ledger technology (DLT) that is shared among computer network nodes.⁴⁶ The DLT allows digital information to be recorded and distributed but not edited—a feature often described as “immutable.”⁴⁷ The Bitcoin blockchain went live on January 3, 2009, when the first block—coined the *genesis block*—was mined.⁴⁸ Sixteen months later, the first economic transaction occurred when a man paid 10,000 Bitcoin through barter on an internet forum to purchase two pizzas, establishing a then-market price of four Bitcoin per penny.⁴⁹ Later that same year, Bitcoin hit multiple exchange platforms, allowing for easier exchange, although its market price was zero dollars at launch.⁵⁰ Over the decade, the value and use of Bitcoin accelerated, and in 2021 Bitcoin had an average price of \$47,300, and there were about 250,000 confirmed transactions per day.⁵¹

Bitcoin was created with a finite supply of 21 million coins that are mined using powerful computers solving complex math problems to discover new Bitcoins and confirm the legitimacy and accuracy of previous Bitcoin transactions.⁵² Miners are rewarded with new Bitcoin, and the block reward given to Bitcoin miners for processing transactions

⁴⁵ Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, METSDOWD, (Oct. 31, 2008, 12:10 EDT), <https://www.metzdowd.com/pipemail/cryptography/2008-October/014810.html>.

⁴⁶ Adam Hayes, *What is Blockchain?* INVESTOPEDIA, <https://www.investopedia.com/terms/b/blockchain.asp> (last visited Mar. 12, 2022).

⁴⁷ *Id.*

⁴⁸ Paulina Likos and Coryanne Hicks, *The History of Bitcoin, the First Cryptocurrency*, U.S. NEWS, (Feb. 4, 2020), <https://web.archive.org/web/20210127074436/https://money.usnews.com/investing/articles/the-history-of-bitcoin>.

⁴⁹ *Id.*

⁵⁰ Cryptopedia Staff, *The Early Days of Crypto*, CRYPTOPEDIA, (Mar. 17, 2022), <https://www.gemini.com/cryptopedia/crypto-exchanges-early-mt-gox-hack#section-more-bitcoin-exchanges-hit-the-scene>.

⁵¹ Vildana Hajric, *Bitcoin's Plunge Is Hitting the Little Guy Who Got into Crypto During COVID Worst of All*, FORTUNE (May 10, 2022), <https://fortune.com/crypto/2022/05/10/bitcoin-plunge-hitting-small-investor-crypto-during-covid/>; *Confirmed Transactions Per Day*, BLOCKCHAIN, <https://www.blockchain.com/charts/n-transactions> (last visited May 12, 2022).

⁵² Likos & Hicks, *supra* note 48.

is cut in half every 210,000 blocks mined, or roughly every four years.⁵³ The last halving event was on May 11, 2020, and the reward went from 12.5 Bitcoins per block to 6.25 Bitcoins per block, where it will remain until all coins have been mined.⁵⁴ Halving allows for controlled, synthetic inflation with a predictable and decreasing inflationary impact over time. All Bitcoins are estimated to be mined around 2140.⁵⁵ After that, miners are expected to be paid a fee for their work to validate and confirm new transactions.⁵⁶ However, it is unknown whether Bitcoin will remain the dominant cryptocurrency or it will be replaced with another cryptocurrency, such as the emerging stable coins. New crypto coins and tokens are coming into the market at a brisk pace. As of January 2021, there were 5,728 initial coin offerings (“ICOs”)—an unregulated method to raise capital for a new cryptocurrency or crypto ventures—valued at more than \$27 billion.⁵⁷

The name “Cryptocurrency” is a misnomer because cryptocurrencies are rarely used as currency in the traditional sense. A comprehensive review of all cryptocurrencies found that two-thirds of all cryptocurrency transactions are non-economic transactions.⁵⁸ Transactions do not involve a user purchasing something with the currency but rather involve transactions between a single user’s own crypto accounts. According to a joint study conducted by finance professors Antoinette Schoar at the MIT Sloan School of Management and Igor Makarov of the London School of Economics, 90% of Bitcoin transactions are “not tied to economically meaningful activities.”⁵⁹ This is because currency is a medium of exchange representing money—and cryptocurrency is a poor representation of money.

⁵³ Luke Conway, *Bitcoin Halving*, INVESTOPEDIA, <https://www.investopedia.com/bitcoin-halving-4843769> (last visited May 13, 2022).

⁵⁴ *Id.*

⁵⁵ Benedict George, *What Happens When All Bitcoin Are Mined*, COINDESK, <https://www.coindesk.com/learn/what-happens-when-all-bitcoin-are-mined/> (last visited May 13, 2022).

⁵⁶ Conway, *supra* note 53.

⁵⁷ Oksana A. Karpenko, Tatiana K. Blokhina, and Lali V. Chebukhanova, *The Initial Coin Offering (ICO) Process: Regulation and Risks*, J. RISK AND FIN. MGMT. 14: 599 (2021); *Investor Bulletin: Initial Coin Offerings*, SEC (July 25, 2017), https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_coinofferings [hereinafter *Investor Bulletin*].

⁵⁸ Olga Kharif, *Up to Two-Thirds of Bitcoin Transactions Have No Economic Value*, BLOOMBERG (July 26, 2018, 9:07 EDT), <https://www.bloomberg.com/news/articles/2018-07-26/up-to-two-thirds-of-bitcoin-transactions-have-no-economic-value>.

⁵⁹ Igor Makarov & Antoinette Schoar, *Blockchain Analysis of the Bitcoin Market* (Oct. 13, 2021), <https://ssrn.com/abstract=3942181>.

Money is a mutually accepted representation of value, and currency is its tangible counterpart. Money should have the three following characteristics: a medium of exchange, a unit of account, and a store of value. A widely accepted expanded definition for each category is:

[t]o function as a *medium of exchange*, the thing must be tradable and agreed to have value. To function as *unit of account*, the thing must act as a good measurement system. To function as a *store of value*, the thing must be able to purchase approximately the same value of goods and services at some future date as it can purchase now.⁶⁰

The extreme volatility alone disqualifies cryptocurrency as a well-functioning store of value and unit of account. For example, Bitcoin has an annualized volatility of 81%, meaning extreme price swings are common.⁶¹ These swings can be dramatic, like when Bitcoin lost 60% of its value in one month between January and February 2018.⁶² Furthermore, cryptocurrency's absence of legal-tender status, lack of ubiquitous acceptance, high transaction costs, and other practical factors make it a dubious medium of exchange.

Despite cryptocurrency's current lack of value as money and its lack of use as currency, crypto still offers several conceivable advantages and possesses future potential. Proponents of crypto refer to its benefits of privacy, security, speed, cost, mobility, accessibility, and immutability. However, the most notable feature of cryptocurrency is its decentralization, meaning there is no central authority, such as a central bank or government that controls the currency. Crypto advocates cite this feature as eventually allowing crypto to be more efficient and secure than current monetary and payment systems.⁶³ Modern financial institutions operate and maintain sizeable electronic network infrastructure, employ people, and take time to complete transactions, which adds cost and complexity, particularly in international

⁶⁰ PERKINS: CRYPTOCURRENCY, *supra* note 8, at 2.

⁶¹ Alex Botte & Mike Nigro, *Risk Analysis of Crypto Assets*, TWO SIGMA, <https://www.twosigma.com/articles/risk-analysis-of-crypto-assets/> (last visited May 22, 2022).

⁶² Ben Popken, *Bitcoin Loses More Than Half Its Value Amid Crypto Crash*, NBC NEWS (Feb. 2, 2018, 4:43 EDT), <https://www.nbcnews.com/tech/internet/bitcoin-loses-more-half-its-value-amid-crypto-crash-n844056>.

⁶³ PERKINS: CRYPTOCURRENCY, *supra* note 8, at 2.

transactions.⁶⁴ Proponents believe that removing these intermediaries will improve economic efficiency by reducing costs through competition or eliminating them.⁶⁵

Related to crypto's decentralization feature is increasing credibility and trust relative to fiat currency. In the United States, trust in the federal government and financial institutions remains low, with only 39% of Americans trusting the federal government and 33% of Americans trusting financial institutions.⁶⁶ According to the most recent Chicago Booth/Kellogg School Financial Trust Index (FTI), the 33% of Americans who trust financial institutions is an "all-time high" since the index was established in 2008 during the Great Financial Crisis (GFC).⁶⁷ However, this report was published in 2020 before the after-effects of the COVID-19 stimulus spending were felt. Today, due at least partly to extraordinary government stimulus spending not linked to productivity, America is experiencing high inflation, and consumer confidence is at an 11-year low.⁶⁸ The current sentiment likely reflects further government and financial institution trust decline.

Waning confidence in government, its fiat currency, and financial institutions motivate people to acquire and use Bitcoin and other cryptocurrencies to hedge against fiat. In contrast to declining trust in financial institutions, Bitcoin's unique features and staying power have increased cryptocurrency trust. A recent survey reported that 50% of professionals trust cryptocurrency, and 57% currently own some.⁶⁹ What's more, financial institution employees had much more trust, with 90% of professionals at JP Morgan Chase and 70% of workers at Goldman Sachs saying they trust cryptocurrency.⁷⁰ Another survey found

⁶⁴ *Id.* at 15.

⁶⁵ *Id.* at 15-16.

⁶⁶ Megan Brenan, *Americans' Trust in Government Remains Low*, GALLUP, (Sept. 30, 2021), <https://news.gallup.com/poll/355124/americans-trust-government-remains-low.aspx>; Paolo Sapienza & Luigi Zingales, *Financial Trust Index*, CHI. BOOTH KELLOGG SCHOOL, (last visited May 23, 2022), <http://www.financialtrustindex.org/resultswave28.htm>.

⁶⁷ *Id.*

⁶⁸ Megan Henney, *Consumer Confidence Sinks to 11-Year Low in May as Inflation Rages*, FOX BUS., <https://www.foxbusiness.com/economy/consumer-confidence-sinks-may-inflation> (last visited May 24, 2022).

⁶⁹ Benjamin Powers, *Half the Professionals Surveyed in Anonymous Poll 'Trust' Crypto*, COINDESK (Sept. 14, 2021, 8:20 PM), <https://www.coindesk.com/markets/2021/03/03/half-the-professionals-surveyed-in-anonymous-poll-trust-crypto/>.

⁷⁰ *Id.*

that 41% of people globally trust Bitcoin over their local currency.⁷¹ Established cryptocurrencies, such as Bitcoin, are gaining the public's trust despite their turbulent past. The growing trust and popularity of cryptocurrencies have garnered lawmakers' and regulators' attention, who often cite crypto's numerous potential risks and drawbacks.

Many people who question the benefits of cryptocurrency cite the exaggeration of its benefits. Nearly every crypto benefit has practical counterpoints overlooked by proponents who hype cryptocurrency. Take privacy and security as an example—two of the hallmark features that led criminals to flock to cryptocurrency. As it turns out, this is more of an “in theory” feature than a “real-world” one. Two features make this system *theoretically* tamperproof: a cryptographic fingerprint unique to each block and a “consensus protocol,” the process by which network nodes agree on a shared history.⁷² However, hackers have repeatedly demonstrated vulnerability in the system using sophisticated methods, such as an “eclipse attack” that fools the blockchain network by confirming fake transactions.⁷³ In 2021 alone, there were over \$7.7 billion stolen as a result of crypto hacks.⁷⁴ The trend accelerated in 2022 with the infamous March 2022 hack of \$600 million that stole from Ronin Network—an NTF gaming blockchain platform.⁷⁵ This hack occurred only *one month* after the February 2022 Wormhole attack, where hackers stole 120,000 wETH, a token pegged to Ether, valued at \$325 million.⁷⁶

Likewise, cryptocurrency is not as private as many believe. This was demonstrated in 2018 when Mashael Al Sabah, a cybersecurity researcher at the Qatar Computing Research Institute, was able “to trace purchases made on the black-market ‘dark web’ site Silk Road back to users’ real identities simply by culling through the public Bitcoin

⁷¹ Eric Vazquez, *Why the Success of Alts Like Dogecoin Is Promising for the Future of Bitcoin*, PREMISE (Nov. 2, 2021), <https://www.premise.com/blog/why-the-success-of-alts-like-dogecoin-is-promising-for-the-future-of-bitcoin/>.

⁷² Mike Orcutt, *How Secure Is Blockchain Really?*, MIT TECH. REV. (Apr. 25, 2018), <https://www.technologyreview.com/2018/04/25/143246/how-secure-is-blockchain-really/>.

⁷³ *Id.*

⁷⁴ Carly Page, *FBI Eyes Ransomware Profits with New Cryptocurrency Crimes Unit*, TECHCRUNCH+ (Feb. 18, 2022, 9:58 AM), <https://techcrunch.com/2022/02/18/fbi-ransomware-cryptocurrency-crimes/>.

⁷⁵ Joe Tidy, *Ronin Network: What's a \$600m Hack Says About the State of Crypto*, BBC NEWS (Mar. 30, 2022), <https://www.bbc.com/news/technology-60933174>.

⁷⁶ *Wormhole Cryptocurrency Platform Hacked for \$325M After GitHub Bug*, 6PARK.NEWS/USA (Feb. 3, 2022, 5:43 AM), <https://6park.news/usa/wormhole-cryptocurrency-platform-hacked-for-325m-after-github-bug.html>.

blockchain and social media accounts for matching data.”⁷⁷ Because cryptocurrency transactions are all publicly recorded, identifying the wallets used by buyers to store their digital currency is simple and it is often a starting point in unraveling anonymity.⁷⁸ This is especially the case now since crypto platforms are legally required to know the identities of their customers.⁷⁹ The U.S. Department of Justice (DOJ) and other international organizations are increasingly able to track and recover cryptocurrency used in illegal activity. For example, in February 2022, the DOJ announced it seized \$3.6 billion of Bitcoin stolen in the 2016 hack of Bitfinex and charged the suspects with conspiracy to commit money laundering and conspiracy to defraud the United States, a crime that carries a sentence up to 25 years in prison.⁸⁰

Other economic and efficiency aspects of touted cryptocurrency benefits are also shaky and exaggerated. Increased speed and reduction or elimination of intermediary infrastructure appear to be two of these questionable features. In 2022, the average Bitcoin transaction took forty minutes,⁸¹ compared to the average Visa credit card chip transaction, which takes less than two seconds.⁸² Moreover, one of the key characteristics of crypto is its direct peer-to-peer network and the promise to eliminate middlemen. The original Bitcoin whitepaper by the pseudonym Satoshi Nakamoto states in its first sentence that Bitcoin “would allow online payments to be sent directly from one party to another without going through a financial institution.”⁸³ However, an ecosystem of crypto-asset service providers (CASPs), such as wallets, exchanges, and trading platforms, performs the same functions as

⁷⁷ MIT Technology Review Insights, *Cryptocurrency Isn’t Private—But with Know-How, It Could Be*, MIT TECH. REV., (Oct. 28, 2021),

<https://www.technologyreview.com/2021/10/28/1027250/cryptocurrency-isnt-private-but-with-know-how-it-could-be/>.

⁷⁸ Rebecca Heilweil, *The Rise of the Crypto Cop*, VOX, (May 11, 2022, 11:30 AM), <https://www.vox.com/recode/2022/5/11/23065956/detectives-crypto-cops-irs-fbi-cyber-bitcoin>.

⁷⁹ *Id.*

⁸⁰ U.S. Dep’t of Just., Off. of Pub. Aff., *Two Arrested for Alleged Conspiracy to Launder \$4.5 Billion in Stolen Cryptocurrency*, U.S. DEP’T JUST. (Feb. 8, 2022), <https://www.justice.gov/opa/pr/two-arrested-alleged-conspiracy-launder-45-billion-stolen-cryptocurrency>.

⁸¹ *Average Transaction Speed of 66 Cryptocurrencies with the Highest Market Cap as of September 2022*, STATISTA, <https://www.statista.com/statistics/944355/cryptocurrency-transaction-speed/> (last visited May 28, 2022).

⁸² Chris Isidore, *Visa Moves to Speed Up Chip Card Transactions*, CNN MONEY, (Apr. 20, 2016, 7:45 AM), <https://money.cnn.com/2016/04/20/pf/visa-chip-card-speed/index.html>.

⁸³ Nakamoto, *supra* note 45.

custodians, stock exchanges, and brokers in traditional financial institutions.⁸⁴ Dr. Philipp Paech with the London School of Economics writes, “Structurally, the functions are comparable, and so are the ensuing risks . . . the pure existence of these intermediaries contradicts . . . the promises on which the crypto-space is built.”⁸⁵

In summary, the benefits of cryptocurrency were built on features and characteristics that have been oversold and morphed into what increasingly looks like a more traditional finance space, and regulation is no exception. The largely unregulated beginnings that cryptocurrency operated within was a key concern for government officials, and over the past several years, authorities have begun to regulate cryptocurrency, but more work needs to be done. According to the U.S. Security and Exchange Commission (SEC) Chairman, novel financial services never existed long-term outside the regulatory perimeter because financial services required trust.⁸⁶ The SEC Chairman noted that much of what currently constitutes the cryptocurrency market would either disappear or enter the regulated space.⁸⁷ The following section of this paper will review the U.S.’s current and proposed efforts to bring cryptocurrency into its regulatory sphere.

II. U.S. CRYPTOCURRENCY REGULATORY LANDSCAPE

The U.S. financial regulatory framework is vast, comprehensive, and complex. In the U.S., a constitutional federal republic system of government exists. The U.S. has fifty-one separate and autonomous governments in its simplest form—fifty state governments and one federal government. Federal and state governments have independent and autonomous authority over their respective territories through separate administrative, legislative, and judicial branches. This authority includes broad powers such as assessing, levying, and collecting taxes; passing and enforcing laws; and appointing officials. They also bear many responsibilities, such as providing public services and ensuring people’s safety and well-being, including financial regulation. Even though each government is distinct and autonomous, they are not wholly independent of one another. Many of their powers and responsibilities are shared and divided, resulting in interdependence

⁸⁴ Philipp Paech, “Crypto Assets” (lecture taught at the London School of Economics and Political Science in 2021) (on file with author).

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*

at all levels of government. This shared and divided governance method is woven into the republic's fabric and is at the heart of American federalism.

The federal government's authority is derived from and limited to the powers explicitly granted to it in the U.S. Constitution, including those implied by the Constitution's text and structure. The delegated and enumerated powers are found in Article I, Section 8 and include the authority to *borrow and coin money*, regulate commerce with foreign nations, declare war, raise and support armies, provide and maintain a navy, and call forth the militia to execute the laws of the union, suppress insurrections, and repel invasions.⁸⁸ Except for the powers delegated to the federal government, the Constitution reserves all other powers to the states and the people.⁸⁹ Despite its limited powers, the federal government is supreme: Article VI, clause 2 of the U.S. Constitution, often referred to as "The Supremacy Clause," states, "the Laws of the United States ... shall be the supreme Law of the land."⁹⁰ This means that no state can pass a law that conflicts with the supreme laws of the federal government. Regardless of the type of government, one of the most fundamental responsibilities of any government is to protect its citizens—and financial regulation aims to do this.

Financial regulation is a tool for the government to protect its people through transparency, fairness, and honesty and protect the government's interests in maintaining the financial system's integrity, stability, and efficiency to facilitate growth. The American system of federalism means that states and the federal government may each pass their own laws and enact regulations to oversee financial markets and companies. In practice, federalism leads to a complex patchwork of overlapping regulatory agencies and efforts. In addition to the fifty state legislatures and U.S. Congress, there are multiple regulatory bodies, including the Federal Reserve Board (FRB), Office of the Comptroller of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC), Office of Thrift Supervision (OTS), Commodity Futures Trading Commission (CFTC), Financial Industry Regulation Authority (FINRA), State Bank and Insurance Regulators, and the Securities and Exchange

⁸⁸ U.S. CONST. art. I, § 8; *see also* Aaron S. Poynton, *The Duel Over Duality: Effects of Federalism on the United States National Guard's Emergency Response Mission* (2010) (unpublished Ph.D. dissertation, University of Baltimore) (on file with University of Baltimore).

⁸⁹ Poynton, *supra* note 88.

⁹⁰ U.S. CONST. art. VI, cl. 2.

Commission (SEC).⁹¹ This regulatory framework serves as the foundation for the current efforts to regulate cryptocurrency.

There are two primary approaches to cryptocurrency regulation that are taking place concurrently. First, government officials are regulating cryptocurrencies through existing laws and authorities. However, many are concerned whether existing laws and regulations adequately and efficiently address the risks posed by cryptocurrency. For example, SEC Chairman Jay Clayton stated in testimony to Congress in 2018 that “[t]he recent proliferation and subsequent popularity of cryptocurrency markets creates a question for market regulators as to whether our historic approach to the regulation of sovereign currency transactions is appropriate for these new markets.”⁹² Second, legislators are looking for new laws and regulations to govern cryptocurrencies and their ecosystems, some of which is happening at the state level. However, there are renewed efforts to take a more comprehensive, federal approach following several incidences, such as the crash of TerraUSD, a stablecoin whose value plummeted 98% in May 2022, and the November 2022 collapse of FTX, which lost \$8.9 billion in deposits.⁹³

Each approach will be discussed further below. Regardless of the path, there are three general government responses to cryptocurrencies: 1) encouraging the use and development of cryptocurrencies within the jurisdiction; 2) prohibiting or restricting the use of cryptocurrencies within the jurisdiction; and 3) regulating the use of cryptocurrencies to reduce potential risks while encouraging financial innovation.⁹⁴ Because cryptocurrencies are still relatively new, government approaches are still evolving in all cases.⁹⁵

With Bitcoin millionaires appearing overnight, the first aspect of cryptocurrency that the government addressed was how to tax cryptocurrency. The Internal Revenue Service (IRS) issued Notice 2014-

⁹¹ Michael Schmidt, *Financial Regulators: Who They Are and What They Do*, INVESTOPEDIA (Dec. 6, 2021), <https://www.investopedia.com/articles/economics/09/financial-regulatory-body.asp#toc-state-securities-regulators>.

⁹² Jay Clayton, *Chairman’s Testimony on Virtual Currencies: The Roles of the SEC and CTTC*, U.S. SEC. & EXCH. COMM’N. (Feb. 6, 2018), <https://www.sec.gov/news/testimony/testimony-virtual-currencies-oversight-role-us-securities-and-exchange-commission>.

⁹³ *TerraUSD*, COINDESK, <https://www.coindesk.com/price/terrausd/> (last visited May 28, 2022); Alexander Saeedy, *FTX Says \$8.9 Billion in Customer Funds Are Missing*, WSJ (Mar. 2, 2023), <https://www.wsj.com/articles/ftx-says-8-9-billion-in-customer-funds-are-missing-c232f684>.

⁹⁴ REBECCA NELSON, CONG. RSCH. SERV., R45440, INTERNATIONAL APPROACHES TO DIGITAL CURRENCIES 1 (2018).

⁹⁵ *Id.*

21 in March 2014, stating that cryptocurrency would be classified as property rather than currency for federal income tax purposes.⁹⁶ States commonly follow the federal treatment, although due to its novelty and lack of harmonization, states currently differ in their treatment of cryptocurrency for tax purposes.⁹⁷ Cryptocurrency is calculated as a capital gain or loss and is generally taxed at a lower rate than ordinary income, with a top federal tax bracket of 20% versus 37%, as long as the asset is held for at least one year.⁹⁸ Those who trade cryptocurrency frequently and hold less than one year are generally taxed at ordinary income rates. Suspecting many sellers of cryptocurrencies were not paying taxes on their gains, in July 2019, the IRS began sending letters to cryptocurrency owners whose information they received from crypto exchanges as part of their know-your-customer (KYC) requirements.⁹⁹ The letters advised owners to file amended tax returns and pay back taxes based on the IRS's suspicions that many were not properly paying taxes on their gains.¹⁰⁰

Crypto exchanges are required to collect KYC and other due diligence information, but they are not required to report transactions to the IRS automatically. In contrast, broker-dealer firms and banks must report all securities and cash transactions over \$10,000 to the IRS.¹⁰¹ As a result, the IRS requests “John Doe” summons court orders to gain information about possible tax-evaders, which is a court order allowing them to gather information from third parties, such as banks or other financial institutions, even if they don't have the names of the individuals involved. In 2021, the IRS stated it would increase the use of these

⁹⁶ U.S. INTERNAL REVENUE SERV., NOTICE 2014-21 (2014), <https://www.irs.gov/pub/irs-drop/n-14-21.pdf>.

⁹⁷ Scott Schiefelbein & Tyler Greaves, *Uncharted Territory: The State Income Tax Implications of Blockchain Technology and Cryptocurrency*, DELOITTE TAX LLP 1 (2020), <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/Tax/us-uncharted-territory-state-income-tax.pdf>.

⁹⁸ *IRS Provides Tax Inflation Adjustments for Tax Year 2022*, U.S. INTERNAL REVENUE SERV. (Nov. 10, 2021), <https://www.irs.gov/newsroom/irs-provides-tax-inflation-adjustments-for-tax-year-2022>.

⁹⁹ *IRS Has Begun Sending Letters to Virtual Currency Owners Advising Them to Pay Back Taxes, File Amended Returns; Part of Agency's Larger Efforts*, U.S. INTERNAL REVENUE SERV. (July 26, 2019), <https://www.irs.gov/newsroom/irs-has-begun-sending-letters-to-virtual-currency-owners-advising-them-to-pay-back-taxes-file-amended-returns-part-of-agencys-larger-efforts>.

¹⁰⁰ Susan Tompor, *Crypto Taxes: Not as Easy to Hide from as You'd Imagine*, DETROIT FREE PRESS (Mar. 25, 2022, 6:01 AM), <https://www.freep.com/story/money/personal-finance/susan-tompor/2022/03/25/taxes-bitcoin-digital-currency-crypto/6972094001/>.

¹⁰¹ *Understand How to Report Large Cash Transactions*, U.S. INTERNAL REVENUE SERV. 1 (Feb. 2021), <https://www.irs.gov/newsroom/understand-how-to-report-large-cash-transactions>.

summonses and launched Operation Hidden Treasure, a new tax enforcement initiative for cryptocurrency-related tax evasion.¹⁰² However, many exchanges already reported this information to the IRS voluntarily and notified account holders via forms 1099K, 1099-MISC or 1099B.¹⁰³ Reporting has become a legal requirement beginning in 2023 as the Infrastructure Investment and Jobs Act (IIJA) mandates that exchanges generate 1099-Bs and report to the IRS. In addition to the revenue generated by the government, the collection of transaction information serves as a baseline tool to counter illegal activity—a key concern for regulators.

Most financial laws and regulations were drafted prior to the invention and subsequent growth of cryptocurrencies, raising concerns about whether existing laws and regulations adequately and efficiently address the risks posed by cryptocurrency.¹⁰⁴ Nevertheless, some of the first regulatory efforts have adopted current regulations, akin to the metaphor “fitting a square peg into a round hole.” As noted above, the American system of federalism constructs a fragmented and overlapping dual federal-state regulatory system. Moreover, the regulatory regime has evolved mainly due to major historical financial crises.¹⁰⁵ These characteristics form an imperfect set of conditions to regulate cryptocurrency, and one must wonder if regulation is always chasing the last crisis. For example, following the Great Financial Crisis of 2008, the Dodd-Frank Wall Street Reform and Consumer Protection Act created the Financial Stability Oversight Council (FSOC) to address the regulatory system’s fragmentation, and prevent systemic failure.¹⁰⁶ The FSOC is only now beginning to address the risks of cryptocurrencies.

The FSOC provides the U.S. financial industry’s first comprehensive monitoring system to identify risks, promote market discipline, and respond to emerging risks.¹⁰⁷ In 2021, the FSOC recommended in its annual report that “state and federal regulators review available regulations and tools that could be applied to digital

¹⁰² Philip J. Bezanson, Anne M. Termine & Brittney E. Justice, *The IRS Is Mining for Crypto Account Holders*, 172 NAT’L L. REV. (June 21, 2022), <https://www.natlawreview.com/article/irs-mining-crypto-account-holders>.

¹⁰³ Andrew Perlin, *Everything You Need to Know About Crypto 1099s in 2023*, TOKEN TAX (Apr. 12, 2023), <https://tokentax.co/blog/form-1099-crypto-exchange>; See also I.R.S. Form 1099-b, <https://www.irs.gov/forms-pubs/about-form-1099-b>.

¹⁰⁴ PERKINS: CRYPTOCURRENCY, *supra* note 8, at 15.

¹⁰⁵ MARC LABONTE, CONG. RSCH. SERV., R44918, WHO REGULATES WHOM? AN OVERVIEW OF THE U.S. FINANCIAL REGULATORY FRAMEWORK 1 (2020).

¹⁰⁶ *Id.*

¹⁰⁷ *Financial Stability Oversight Council*, U.S. DEP’T OF TREAS. (last visited May 28, 2022), <https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc>.

assets.” Particularly, it focused on stablecoins, stating, “[a] run on stablecoins during strained market conditions may have the potential to amplify a shock to the economy and the financial system.”¹⁰⁸ The recommendation followed the President’s Working Group on Financial Markets Report on Stablecoins that echoed similar concerns and warned that stablecoins are “not subject to a consistent set of prudential regulatory standards.”¹⁰⁹ It cites a loss of value risk associated with a run on stablecoins; payment system risks, “including credit risk, liquidity risk, operational risk, risks arising from improper or ineffective system governance, . . . settlement risk” risk of scale, systemic risk, and concentration of power.¹¹⁰ In essence, these reports sounded the alarm for the first time that a cryptocurrency posed a systemic risk to the financial system—an eerie reminder of 2008. The President’s report recommends legislative action to close the regulatory gaps by having legislation provide consolidated supervision, prudential standards, and a federal safety net.¹¹¹ Following this report, the stablecoin TerraUSD crashed, and legislative initiatives have been moved to the forefront of Congress’ agenda, where they have already introduced a record thirty-five bills in 2021 focused on cryptocurrencies and blockchain.¹¹²

In addition to the FSOC, which is vigilant against systemic risk, several other existing laws, regulations, and regulatory bodies apply to cryptocurrency. The first and most significant application of current legislation to cryptocurrency is the Banking Secrecy Act (BSA), the principal federal anti-money laundering statute enforced by the Financial Crimes Enforcement Network (FinCEN).¹¹³ In 2013, FinCEN released guidelines clarifying the BSA’s application to the financial industry related to cryptocurrency.¹¹⁴ The guidance clarified that a virtual currency *administrator* or *exchanger* is a Money Services Business (MSB) and, therefore, subject to registration, reporting, and

¹⁰⁸ *Id.*

¹⁰⁹ President’s Working Group on Financial Markets, et al., *Report of STABLECOINS*, U.S. DEP’T OF TREAS. (Nov. 2021), https://home.treasury.gov/system/files/136/StableCoinReport_Nov1_508.pdf.

¹¹⁰ *See generally id.*

¹¹¹ *Id.* at 16.

¹¹² Jason Brett, *In 2021, Congress Has Introduced 35 Bills Focused on U.S. Crypto Policy*, FORBES (Dec. 27, 2021), <https://www.forbes.com/sites/jasonbrett/2021/12/27/in-2021-congress-has-introduced-35-bills-focused-on-us-crypto-policy/?sh=47b77d2dc9e8>.

¹¹³ Office of the Comptroller of the Currency, *Bank Secrecy Act*, U.S. DEP’T OF TREAS., <https://www.occ.treas.gov/topics/supervision-and-examination/bsa/index-bsa.html>.

¹¹⁴ U.S. DEP’T OF TREAS., FINANCIAL CRIMES ENFORCEMENT NETWORK, APPLICATION OF FINCEN’S REGULATIONS TO PERSONS ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES (2013).

recordkeeping regulations. The guidance further clarified that a *user* of cryptocurrency is not an MSB, and therefore not subject to the BSA.¹¹⁵ This means that crypto exchanges must follow a comprehensive compliance program—including verifying customer identity—establishing due diligence systems and monitoring programs; screening against controlled government lists; monitoring and reporting suspicious activity; and creating risk-based anti-money laundering programs.¹¹⁶

In 2021, FinCEN proposed a new rule to expand the BSA to “unhosted wallets or wallets hosted in a jurisdiction identified by FinCEN,” citing it was a “loophole-closing measure to prevent illicit transactions [that] would otherwise be subject to familiar and long-established reporting requirements if they were in cash.”¹¹⁷ If FinCEN chooses to finalize the rule, it will likely occur in February 2024.¹¹⁸ The application of the BSA to crypto exchanges and potentially wallets is a regulatory measure meant to curb money laundering and illegal activities, such as terrorist financing, tax and sanction evasion, and drug and human trafficking. Although, many opponents of the expanded regulation cite the erosion of cryptocurrency’s privacy—one of its hallmark features that attracted many cryptocurrency users. Balancing regulation against the benefits of cryptocurrency must be considered holistically so that regulation does not diminish crypto’s positive attributes or hamper financial innovation generally.

As noted above, current regulatory efforts fall within the existing authority and the regulatory enforcement agencies. While a myriad of regulatory agencies and departments exist, the most prominent is the Securities and Exchange Commission. The SEC was established in 1934 by the Securities Exchange Act to aid in the restoration of investor confidence following the 1929 stock market crash.¹¹⁹ Its mission was to protect investors; maintain fair, orderly, and efficient markets; and facilitate capital formation.¹²⁰ The SEC’s jurisdiction extends to companies that offer securities for public sale, as well as those who sell

¹¹⁵ *Id.*

¹¹⁶ 31 U.S.C. §§ 5311-5330.

¹¹⁷ Requirements for Certain Transactions Involving Convertible Virtual Currency or Digital Assets, 86 Fed. Reg. 7352 (proposed Jan. 28, 2021) (to be codified at 31 C.F.R. pts. 1010, 1020, 1022).

¹¹⁸ *View Rule*, EXEC. OFFICE OF THE PRESIDENT, <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202104&RIN=1506-AB41> (last visited Apr. 18, 2023).

¹¹⁹ *The Role of the SEC*, U.S. SEC. & EXCH. COMM’N, <https://www.investor.gov/introduction-investing/investing-basics/role-sec> (last visited June 2, 2022).

¹²⁰ *Id.*

and trade securities—such as brokers, dealers, and exchanges. The SEC has regulatory jurisdiction over some types of cryptocurrencies and related activities, but not over digital assets—which it differentiates as a commodity, not a security. The SEC regulates securities, which are defined as: “(1) an investment of money, (2) in a common enterprise, (3) with a reasonable expectation of profit, (4) to be derived from the efforts of others.”¹²¹ Some cryptocurrency activities, such as many ICOs, fit this description, but Bitcoin does not, as a profit-seeking business does not issue it.¹²²

Adding to the ambiguity of crypto regulatory jurisdiction, SEC Chair Gary Gensler said to the U.S. Congress House Appropriations Financial Services Subcommittee on May 18, 2022, that his agency has jurisdiction “over probably a vast number” of cryptocurrencies, but Bitcoin was “maybe” not under its purview.¹²³ These statements certainly did not give the impression of definitiveness or confidence. Around the same time as Gensler’s testimony, SEC Commissioner Hester Peirce stated that the agency “dropped the regulatory ball” by not acting sooner and there would be “long-term consequences of that failure.”¹²⁴ Both statements were made during a time of public scrutiny as crypto markets were melting down. Peirce went on to redirect the issue back to Congress, stating, “[i]t would be helpful if Congress came in and said, ‘SEC, here’s the role we think you should be playing. CFTC, here’s the role for you.’”¹²⁵

Commissioner Peirce was referring to the other federal securities regulatory body with jurisdiction over cryptocurrencies, the Commodity Futures Trading Commission. The CFTC was established in 1974 to regulate commodity futures and options markets, which historically included agricultural commodities but grew to include financial variables contracts, such as interest rates and stock indexes.¹²⁶ The CFTC was given exclusive jurisdiction over any contract “in the character of” future contracts, and its jurisdiction was later expanded to over-the-counter derivatives.¹²⁷ Its mission is to “*protect market users and the public from*

¹²¹Jay B. Sykes, *Securities Regulation and Initial Coin Offerings: A Legal Primer*, CONG. RSCH. SERV. 1, 5 (last updated Aug. 31, 2018).

¹²² EVA SU, CONG. RSCH. SERV., R45221, CAPITAL MARKETS, SECURITIES OFFERINGS, AND RELATED POLICY ISSUES 37 (2018).

¹²³ MacKenzie Sigalos, *SEC’s Hester Peirce Says the U.S. Has Dropped the Ball on Crypto Regulation*, CNBC (May 25, 2022), <https://www.cnbc.com/2022/05/25/secs-hester-peirce-us-dropped-the-ball-on-crypto-regulation.html>.

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ RENA S. MILLER, CONG. RSCH. SERV., IF10117, INTRODUCTION TO FINANCIAL SERVICES: DERIVATIVES 1, (2019).

¹²⁷ MARC LABONTE, CONG. RSCH. SERV., R44918, WHO REGULATES WHOM? AN OVERVIEW OF THE U.S. FINANCIAL REGULATORY FRAMEWORK 19 (2020).

*fraud, manipulation, and abusive practices related to the sale of commodity futures, options and swaps, and to foster open, competitive, and financially sound commodity futures, options and swaps markets.”*¹²⁸ Even though many of the aforementioned federal government agencies play a significant role in cryptocurrency regulation, in 2014, the CFTC declared cryptocurrency a commodity subject to oversight under its authority.¹²⁹ It went on to take several regulatory actions, such as suing the unregistered bitcoin futures exchange BitFinex.¹³⁰ In May 2022, in response to various bills circulating in Congress related to the regulation of cryptocurrency, CFTC Chairman Rostin Behnam reiterated that his agency believes Bitcoin and ether are commodities.¹³¹

While officials are using existing authority to regulate cryptocurrency, and regulatory jurisdiction is evolving, the federal government is considering new laws and regulations to organize regulatory efforts better and more effectively achieve the regulation’s goals. On March 9, 2022, President Joseph Biden signed an Executive Order (EO) to ensure the responsible development of digital assets, which was claimed to be the first whole-of-government strategy to protect consumers, financial stability, national security, and address climate change.¹³² The EO called for measures to protect consumers, investors and businesses, protect financial stability and mitigate systemic risk, promote leadership in technology and economic competitiveness and reinforce leadership in the global financial system, promote equitable access to safe and affordable financial services, support technological advanced and ensure responsible development and use of digital assets and explore a CBDC.¹³³ Many critics of the EO describe it as lackluster as it does not prescribe any regulatory framework, issue any

¹²⁸ *Summary of CFTC Mission Statement, Strategic Goals & Outcomes*, COMMODITY FUTURES TRADING COMM’N <https://www.cftc.gov/sites/default/files/reports/presbudget/2012/2012presidentsbudget0405.html> (last visited Nov. 4, 2022).

¹²⁹ Timothy Massad, Testimony of CFTC Chairman Timothy Massad before the U.S. Senate Committee on Agriculture, Nutrition and Forestry (Dec. 10, 2014).

¹³⁰ *In re BXFNA Inc.*, CFTC Docket. No. 16-19 (June 2, 2016).

¹³¹ Kevin Helmes, *CFTC Chairman Confirms Bitcoin, Ether Are Commodities*, BITCOIN.COM (May 22, 2022), <https://news.bitcoin.com/cftc-chairman-confirms-bitcoin-ether-are-commodities/>.

¹³² Exec. Order No. 14067, 87 Fed. Reg. 40881 (July 8, 2022); *see also Executive Order on Ensuring Responsible Development of Digital Assets*, THE WHITE HOUSE, (March 9, 2022), <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/>

¹³³ Exec. Order No. 14067, 87 Fed. Reg. 40881.

new rules or provide any further guidance.¹³⁴ The EO simply gives the various departments and agencies about 180 days to submit reports on the assigned topics.¹³⁵ Furthermore, some of the EO's requirements have already been addressed; for example, at the time of the EO's announcement, the Federal Reserve had recently published two reports on CBDC, which likely satisfy the EO's request.¹³⁶ As a result, the executive order was criticized by many as insufficient to address the regulatory challenges in the cryptocurrency space.

Regardless of the EO's issuance, new laws related to crypto should ultimately come from Congress. The 116th Congress (2019-2021) introduced thirty-five bills related to cryptocurrency, and the 117th Congress (2021-2023) introduced fifty bills covering the crypto regulatory landscape—a significant uptick from previous sessions. The bills are broken into six categories: taxation, CBDC, regulatory treatment, national security, and limitations on elected officials.¹³⁷ The most comprehensive bill introduced to date that would have provided regulatory guidance and clarity, H.R.6154 - Crypto-Currency Act of 2020, was never passed.¹³⁸ The bill provided clear and distinct classifications and definitions for digital assets, made the CFTC the primary regulator of crypto-currencies and the SEC the primary regulator of crypto-securities, and assigned the primary regulators various additional oversight responsibilities and required “those agencies to notify the public of any Federal licenses, certifications, or registrations required to create or trade in such assets, and for other purposes.”¹³⁹ To date, the only federal legislation passed related to crypto-regulation was in the aforementioned IIJA, which merely expanded reporting requirements.

Lastly, because of the lack of federal action, many new laws and regulations are being enacted at the state level. There are about thirty-

¹³⁴ Sean Anderson, et al, *U.S. Crypto Regulation: Biden Signs Executive Order on Strategy to Regulate Crypto*, JDSUPRA (Mar. 16, 2022), <https://www.jdsupra.com/legalnews/u-s-crypto-regulation-biden-signs-5184693/>

¹³⁵ Exec. Order No. 14067, 87 Fed. Reg. 40881.

¹³⁶ Aaron Klein, *How Biden's Executive Order on Cryptocurrency May Impact the Fate of Digital Currency and Assets*, BROOKINGS (Mar. 17, 2022) <https://www.brookings.edu/blog/techtank/2022/03/17/how-bidens-executive-order-on-cryptocurrency-may-impact-the-fate-of-digital-currency-and-assets/>.

¹³⁷ Jason Brett, *Congress Has Introduced 50 Digital Asset Bills Impacting Regulation, Blockchain, and CBDC Policy*, FORBES (May 19, 2022), <https://www.forbes.com/sites/jasonbrett/2022/05/19/congress-has-introduced-50-digital-asset-bills-impacting-regulation-blockchain-and-cbdc-policy/?sh=708ddb4e3f>.

¹³⁸ Crypto-Currency Act of 2020, H.R. 6154, 116th Cong. (2020).

¹³⁹ Scott H. Kimpel, *The Crypto-Currency Act of 2020*, HUNTON ANDREWS KURTH (Mar. 17, 2020), <https://www.blockchainlegalresource.com/2020/03/the-crypto-currency-act-of-2020/>; H.R. 6154.

three states with active legislation and seventeen states with enacted legislation as of 2021.¹⁴⁰ While the particulars of state legislation are beyond this paper's scope, it is noteworthy that New York and California have been the most active in implementing cryptocurrency regulation, primarily due to the number of cryptocurrency businesses in these states and the pro-regulation political environment.¹⁴¹ Conversely, Arizona, Texas, and Wyoming have become the most progressive states. For example, Arizona considered a bill that would have established Bitcoin as legal tender;¹⁴² likewise, Texas has taken legislative steps to make Bitcoin its legal tender.¹⁴³ Although, the constitutional legality of these initiatives is doubtful, and they may not survive a legal challenge.¹⁴⁴

The most important aspect of these laws is allowing states to experiment. The U.S. federal system of government permits states to implement novel laws to determine their impact and effectiveness before scaling to other states or the federal government. Associate Supreme Court Justice Louis Brandeis was the first to popularize the phrase "states are laboratories of democracy."¹⁴⁵ In his dissenting opinion of *New State Ice Co v. Liebmann* in 1932, he stated: "a state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."¹⁴⁶ Yet, while these state efforts may be a good stopgap and allow experimentation in an emerging market, harmonization of the laws and regulations at the federal level is desperately needed to coalesce the haphazard, fragmented, and patchwork evolution of regulation this path is producing.

¹⁴⁰ Heather Morton, *Cryptocurrency 2021 Legislation*, NAT'L CONF. OF STATE LEGISLATURES (Dec. 16, 2021), <https://www.ncsl.org/research/financial-services-and-commerce/cryptocurrency-2021-legislation.aspx>.

¹⁴¹ Rakesh Sharma, *More US States May Roll Out Cryptocurrency Regulations*, INVESTOPEDIA (June 25, 2019), <https://www.investopedia.com/news/majority-us-states-are-still-acknowledge-cryptocurrencies/>

¹⁴² Ben Schreckinger, *A Crypto Breakthrough? Western States Consider Taking Digital Currency*, POLITICO (Feb. 1, 2021, 4:30 AM), <https://www.politico.com/news/2022/01/31/crypto-wyoming-arizona-tax-payments-00003910>.

¹⁴³ Rachel Wolfson, *More Than a Law: Texas Takes Steps to Amend Bitcoin into State Constitution*, COINTELEGRAPH (Sept. 10, 2021), <https://cointelegraph.com/news/more-than-a-law-texas-takes-steps-to-amend-bitcoin-into-state-constitution>.

¹⁴⁴ Schreckinger, *supra* note 142.

¹⁴⁵ Bradley A. Blakeman, *States Are the Laboratories of Democracy*, THE HILL (May 7, 2020), <https://thehill.com/opinion/judiciary/496524-states-are-the-laboratories-of-democracy/>.

¹⁴⁶ *New State Ice Co. v. Liebmann*, 285 U.S. 262, 387 (1932).

CONCLUSION

The United States has the most robust economy and greatest capital markets in the world. The free enterprise systems of capitalism and democracy have been forces for good, lifting people out of poverty, creating economic wealth, and promoting cultural freedom. But, then, why regulate? Because guardrails are needed to keep the system working optimally. Regulation has always been a means to provide a check and balance against the ever-lurking darkness of freedom and capitalism. It strives to protect consumer interests, promote market efficiency, and mitigate risk.¹⁴⁷ Nevertheless, the regulation's consumer protection and risk mitigation efforts must be designed and implemented with great finesse so as not to strangle the productivity and innovation created by the imaginative entrepreneurs that seek their efforts' social and economic rewards. This is the "art" of regulation.

However, this paper demonstrates that the U.S. is far from the subtle art of implementation; the crude foundation is still evolving. After nearly a decade and a half since the creation of the first cryptocurrency, crypto regulation in the United States is fragmented, with different measures taken at the federal and state levels, and even within and among agencies. For example, the SEC has indicated that initial coin offerings may qualify as "securities"; the CFTC categorized many cryptocurrencies as "commodities"; the IRS regards crypto as "property"; states oversee virtual currencies through state money transfer laws; and FinCEN treats crypto as a currency for anti-money-laundering purposes.¹⁴⁸ Despite all of this, the only thing that is certain, as recently put by SEC Chairman Gary Gensler: "there are no customer protections right now in the crypto market."¹⁴⁹

This sluggish speed is not necessarily a surprise as government regulation has always chased rapid advancements in technology and associated consumer and market behavior changes.¹⁵⁰ And while the differences in pace are a product of their organizational design and culture, these differences produce a beneficial outcome—to a point. It is

¹⁴⁷ Phillipp Paech, "Introductory Slides Class 1 LLM407E" (lecture taught at the London School of Economics and Political Science in 2021) (on file with author).

¹⁴⁸ SU, *supra* note 122, at 41.

¹⁴⁹ Kevin Helms, *CFTC Chairman Confirms Bitcoin, Ether Are Commodities – Regulation Bitcoin News*, PUB. NEWS TIMES (May 22, 2022), <https://publicnewstime.com/news/cftc-chairman-confirms-bitcoin-ether-are-commodities-regulation-bitcoin-news/>.

¹⁵⁰ *Regulation and Legislation Lag Behind Constantly Evolving Technology*, BLOOMBERG L. (Sept. 27, 2019), <https://pro.bloomberglaw.com/brief/regulation-and-legislation-lag-behind-technology/>.

impracticable to regulate every aspect of market development. The delay in regulatory action allows the marketplace to work out the “kinks” in the early days associated with new ideas, concepts, and business models. As new ideas develop, they will improve, comply with existing regulations, self-regulate, or fade altogether. Moreover, it allows the government to direct its limited resources to those regulatory issues that have the most significant potential impact on society and the economy. Nevertheless, we are now well beyond the “view from afar and wait-and-see” approach. Cryptocurrency has proliferated from niche to mainstream, and little has been done to regulate it.

As suggested above, the U.S. financial system has evolved mainly due to major historical financial crises, and the government lacks the imagination to foresee a crisis and the determination to take proactive measures. The financial regulatory system’s evolution, rather than being purpose-built, leads to the hazards of path dependence. This is a precarious position for the U.S. and the world as the U.S. is a leader in the global financial community, the high concentration of crypto-based wealth, and economies’ increasingly interconnected and interdependent nature. If the U.S. falls, the world follows.

While crypto regulation is multifaceted (e.g., consumer protection, reduction of illicit activities), I believe the risk of systemic failure is the most significant risk needing regulatory attention. The chances of the next financial crisis emerging from cryptocurrency or related fintech platformization have risen from low to moderate in recent years and are increasing each day significantly. About 7% of the world’s money is in cryptocurrency,¹⁵¹ and according to the CNBC Millionaire Survey, about half of millennial millionaires have at least 25% of their *wealth in cryptocurrencies*.¹⁵² As cryptocurrencies gain greater adoption and acceptance, these numbers will rise, and as they grow, so will the risk of systemic financial system failure.

Moreover, because of the network effect’s exponential growth and massive scale associated with crypto—such as gamification and platformization—the risk may grow exponentially rather than linearly. If the crypto market hits a certain tipping point, systemic failure may happen quickly with unimaginable ramifications and rippling effects through the traditional financial markets. With the last financial crisis,

¹⁵¹ Nathan Reiff, *How Much of All Money Is in Bitcoin?*, INVESTOPEDIA (Nov. 26, 2021), <https://www.investopedia.com/tech/how-much-worlds-money-bitcoin/>.

¹⁵² Robert Frank, *Millennial Millionaires Have a Large Share of Their Wealth in Crypto*, CNBC Survey Says, CNBC: WEALTH (June 10, 2021, 10:23 AM), <https://www.cnbc.com/2021/06/10/millennial-millionaires-have-large-share-of-wealth-in-crypto-cnbc-survey-.html>.

regulators could not prevent a risk that built up under slower conditions with months of warning in traditional, regulated markets. So, they are certainly not prepared to prevent a rapid meltdown in the crypto markets.

The 118th Congress (2023-2025) should pass comprehensive and bipartisan cryptocurrency regulations to mitigate the risk of systemic failure. What is needed most is clarity on regulatory jurisdiction, harmonization among efforts at various levels of government, international harmonization and treaties, more enforcement resources, and consumer education and disclosure requirements. Furthermore, the government should deprioritize or eliminate the rosy exploration of a CBDC—it adds little benefit to the existing fiat digital currency for a country with a strong currency and financial system, such as the case in the U.S. It is also a distraction from much-needed prioritization of regulation and runs antithetical to the core concepts of crypto (e.g., decentralization).

Providing the proper cryptocurrency regulatory framework and tools will remain a significant challenge throughout the next decade. It is imperative because cryptocurrencies, and their tangencies, such as the crypto-ecosystem they live within, increasingly pose a systematic risk to U.S. and global financial markets. Nevertheless, any regulation should not be stronghanded and must be balanced not to smother emerging crypto markets and financial technology innovation. U.S. cryptocurrency regulation has been a slowly evolving state of affairs, and regulators must get to work on the art of their practice before it is too late.