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International Governance of Cryptoassets: Whether, Why, What and Who?

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At the annual World Economic Forum meeting in Davos in January 2020, the Global Consortium for Digital Currency Governance was launched to coordinate the global governance of digital currencies.¹ In the same month, five major central banks from England, Japan, Europe, Canada, and Sweden joined with the Bank of International Settlements to form a new initiative to study central bank digital currencies, “including how such currencies would work across national boundaries.”² Several months earlier, the Financial Action Task Force (FATF), an inter-governmental body established by the Finance Ministers of many industrial nations, adopted new international standards for combating money laundering and the financing of terrorism utilizing blockchains and cryptocurrencies.³ And after their March 2018 meeting, the G20 Ministers of Finance and Central Bank Governors issued a statement calling upon international standard setting bodies “to continue their monitoring of crypto-assets and their risks, according to their respective mandates, and assess multilateral responses as needed.”⁴

These recent developments signal a new trend towards internationalization of the governance of cryptoassets, which consist of

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1. Amanda Russo, *Governing the Coin: World Economic Forum Announces Global Consortium for Digital Currency Governance*, WORLD ECON. F. (Jan. 24, 2020), <https://www.weforum.org/press/2020/01/governing-the-coin-world-economic-forum-announces-global-consortium-for-digital-currency-governance/>. See also *infra* notes 262–66 and accompanying text.

2. Jason Dorrier, *Five Major Central Banks Unite to Explore Launching Their Own Digital Currencies*, SINGULARITYHUB (Jan. 23, 2020), <https://singularityhub.com/2020/01/23/five-of-the-worlds-biggest-central-banks-unite-to-research-digital-currencies/>. See also *infra* notes 137–38 and accompanying text.

3. *International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation*, FINANCIAL ACTION TASK FORCE (FATF), 6 (June 2019), <http://www.fatf-gafi.org/media/fatf/documents/recommendations/pdfs/FATF%20Recommendations%202012.pdf>. See also *infra* note 142 and accompanying text.

4. G20 Meeting of Finance Ministers and Central Bank Governors, Buenos Aires, Arg., Mar. 19–20, 2018, at 3, Communiqué, http://www.g20.utoronto.ca/2018/2018-03-30-g20_finance_communique-en.pdf.

cryptocurrencies such as Bitcoin as well as other assets such as utility and security tokens that may be stored and traded on blockchains or distributed ledger technology.⁵ Until these recent international initiatives, governance of cryptoassets had primarily been at the national level, with national regulatory approaches diverging both with respect to overall receptiveness to cryptocurrencies as well as specific regulatory requirements.⁶

These divergent national approaches and early initiatives for international governance therefore raise the question of whether more international governance is needed for cryptoassets, and if so, what problems such international governance should address and by what mechanisms. A recent survey of national cryptoasset regulators found agreement that because cryptoassets are “generally global in nature” and because the location of the individuals involved in storing or trading cryptoassets may be difficult to determine with any specificity, some internationally coordinated oversight was necessary.⁷ The survey of regulators also found that “there may be specific risks relating to regulatory arbitrage between jurisdictions” as a result of different nations adopting divergent regulatory programs.⁸

With one emerging technology after another, there has been a common refrain by policymakers that we need to “harmonize” international regulation.⁹ Cryptoassets are no exception to this pattern. But a general call for international harmonization is too simple; a more granular analysis is required that asks why, what, and by who international coordination is warranted. This article seeks to explore those questions.

Part I explains cryptoassets and their key features for governance at either the national or international level. Part II describes the initial legal issues or concerns that cryptoassets are raising. Part III summarizes the divergent national regulatory responses to these legal problems to date. Part IV presents the arguments for and against international governance of cryptoassets. Finally, Part V explores existing and possible future mechanisms of international governance of cryptoassets.

5. *G20 Sees Crypto-Assets as Beneficial, but Considers Multilateral Regulatory Response*, LEDGER INSIGHTS (2019), <https://www.ledgerinsights.com/g20-crypto-assets/>.

6. *Id.*

7. Board of the International Organization of Securities Commission [IOSCO], *Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms Consultation Report*, at 42, IOSCO Doc. CR02/2019 (May 14, 2019).

8. *Id.*

9. Gary E. Marchant & Brad Allenby, *Soft Lawlaw: New Toolstools for Governing Emerging Technologies*, 73 BULL. ATOMIC SCIENTISTS, no. 2, 2017, at 108.

I. What Are Cryptoassets?

A. TERMINOLOGY AND DEFINITIONS

Cryptoassets can be defined as digital items of value that are stored or exchanged on a blockchain.¹⁰ These assets can be currencies, commodities, securities, derivatives on a commodity or security, or other tokenized assets that can be stored on a blockchain.¹¹ A blockchain is a type of distributed ledger technology (DLT) in which multiple “nodes” on a network each contain the entire set of information or items stored on that blockchain in the form of validated blocks.¹² There is thus no central authority or point of vulnerability for a blockchain.¹³ Information is stored on the blockchain in the form of cryptographically hashed blocks of data.¹⁴ Each block of data must be validated before it is added to the blockchain.¹⁵ This validation can be done by open competitions to solve computer puzzles in which the system-wide applied computing power performs the validation function, which is known as “mining.”¹⁶ This public mining validation method is known as proof of work, and is generally used by public or permissionless blockchains in which any member of the public can view and participate in the blockchain.¹⁷

Alternatively, private or permissioned blockchains can only be viewed and/or accessed by authorized participants.¹⁸ These private blockchains generally use a “proof of value” or “proof of authority” validation method in which designated participants are responsible for validating individual blocks of data.¹⁹ For example, most of the blockchain platforms “developed for the financial industry in recent years are based on a model of restricted access to known and approved parties.”²⁰

10. *Cryptoassets: Our Work*, FIN. CONDUCT AUTH. (Oct. 25, 2019), <https://www.fca.org.uk/firms/cryptoassets>.

11. IOSCO, *supra* note 7 at 1.

12. *Are Token Assets the Securities of Tomorrow?*, DELOITTE, at 7 (2020), <https://www2.deloitte.com/lu/en/pages/technology/articles/are-token-assets-securities-tomorrow.html>.

13. *Id.*

14. Jimi Sinnige, *How Does Blockchain Work in 7 Steps- A Clear and Simple Explanation.*, GOOD AUDIENCE, (May 6, 2018), <https://blog.goodaudience.com/blockchain-for-beginners-what-is-blockchain-519db8c6677a>.

15. Daniel Piralli, *How Do Blockchain Networks Validate Data*, ICO.LI, (Jan. 10, 2019), <https://www.ico.li/blockchain-validate-data/>.

16. *Id.*

17. George Samman, *How Transactions Are Validated on a Distributed Ledger*, SAMMANTICS, (Mar. 8, 2016), <http://sammantics.com/blog/2016/3/6/how-transactions-are-validated-on-a-shared-ledger>.

18. *Id.*

19. *Proof of Authority Explained*, BINANCE ACAD. <https://academy.binance.com/blockchain/proof-of-authority-explained> (last visited Jul. 30, 2020).

20. *Are Token Assets the Securities of Tomorrow?*, *supra* note 12.

Regardless of the validation method used, once a block of data has been validated, it is added to the previous chain of validated blocks (hence the term blockchain).²¹ Successive blocks added to the blockchain are irrevocably linked by integrating the previous block information into the hash for the next block, which gives the blockchain its important attribute of immutability.²²

A blockchain can be used to store and transfer a variety of cryptoassets.²³ Certain kinds of cryptoassets can function as a digital means of exchange, which are not backed by a central issuer.²⁴ These types of assets are referred to as “cryptocurrencies,” of which Bitcoin was the first and best known example.²⁵ Cryptocurrency has been defined as

a digital representation of value that (i) is intended to constitute a peer-to-peer . . . alternative to government-issued legal tender, (ii) is used as a general-purpose medium of exchange (independent of any central bank), (iii) is secured by a mechanism known as cryptography and (iv) can be converted into legal tender.²⁶

Cryptocurrencies, as an instrument for storing value and facilitating exchange, have also become an investable security.²⁷

But cryptocurrencies are just one category of cryptoassets. The digital tokens which are used in DLT technology can be divided into the following three types for the ease of legislation: (i) payment or exchange tokens or cryptocurrencies; (ii) utility tokens to grant access to digital platforms; and (iii) security tokens for investment purposes.²⁸ But this division cannot be held to be a conclusive one, as a token service may fall under more than one category, or may even fall under none, and therefore, the legal regulations

21. *What Is Blockchain?*, INST. OF CHARTERED ACTS, ENG. & WALES, <https://www.icaew.com/technical/technology/blockchain/blockchain-articles/what-is-blockchain#:~:text=once%20a%20block%20has%20been,ledger%20that%20cannot%20be%20altered>.

22. *Id.*

23. Rich Pell, *Blockchain Platform Enables Secure Transfer, Storage of Crypto Assets*, SMART20, (Oct. 26, 2018), <https://www.smart2zero.com/news/blockchain-platform-enables-secure-transfer-storage-crypto-assets#>.

24. Kevin Voigt, *What Is Bitcoin, and How Does It Work?*, NERDWALLET, (June 18, 2019), <https://www.nerdwallet.com/blog/investing/what-is-bitcoin/>.

25. *Id.*

26. Robby Houben & Alexander Snyers, DIRECTORATE-GENERAL FOR INTERNAL POLICIES OF THE UNION (EUROPEAN PARLIAMENT), *Cryptocurrencies and Blockchain, Legal Context and Implications for Financial Crime, Money Laundering and Tax Evasion*, PE 6.19.024, at 23, (July 9, 2018), <https://op.europa.eu/en/publication-detail/-/publication/631f847c-b4aa-11e8-99ee-01aa75ed71a1/language-en> (Eur. Parl.).

27. Chris Hogan, *4 Things to Know Before Investing in Cryptocurrency*, CHRIS HOGAN, <https://www.chrishogan360.com/investing/investing-in-cryptocurrency>.

28. Apolline Blandin, et al., *Global Cryptoasset Regulatory Landscape Study*, CAMBRIDGE CTR. FOR ALTERNATIVE FIN. (CCAF), at 37 (Apr. 2019), https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2019-04-ccaf-global-cryptoasset-regulatory-landscape-study.pdf.

may overlap or be non-existent.²⁹ This creates complexities for regulators as to how to categorize and classify such abstract entities and group them together to regulate the category similarly. Studies have been conducted to divide token types based on various criteria which vary from their possession type, economic and technical function, to their access and even redress mechanism in cases of misuse or theft or such related instances.³⁰

Functionally, a cryptoasset is “typically represented by a pair of data parameters [or keys] one public (in that it is disclosed to all participants in the system or to the world at large) and one private.”³¹

The public parameter contains or references encoded information about the asset, such as its ownership, value and transaction history. The private parameter . . . permits transfers or other dealings in the cryptoasset to be cryptographically authenticated by digital signature. Knowledge of the private key confers practical control over the asset; it should therefore be kept secret by the holder. More complex cryptoassets may operate with multiple private keys (multisig), with control of the asset shared or divided between the holders.³²

B. BUBBLES, VOLATILITY, AND NATIONAL CRYPTOCURRENCIES

Much of the excitement and concerns about cryptoassets are demonstrated by the rise, fall, and then continued viability of Bitcoin, the first cryptocurrency.³³ In less than a decade, the term cryptocurrencies rapidly evolved from a complex term only used by technologists to become a mainstream term because of its wide popularity.³⁴ The hype is due to the abnormal monetary gains brought by certain specific currencies such as Litecoin, Ethereum, and especially Bitcoin.³⁵ Created in 2008, Bitcoin, at the time of its inception, uniquely “combined technologies used in DLT and built a distributed network without a central and trusted authority. . . . [I]t is open to anyone wishing to participate and maintain identical copies of the ledger. This model is therefore referred to as a ‘public’ or ‘permissionless’ ledger.”³⁶ Nevertheless, most of the blockchain platforms “that have been

29. *Id.* at 106.

30. Stefan Tönnessen, et al., *Understanding Token-Based Ecosystems- A Taxonomy of Blockchain-Based Business Models of Start-Ups*, 30 ELEC. MKTS., 307, 307 (Jan. 28, 2020), <https://link.springer.com/content/pdf/10.1007/s12525-020-00396-6.pdf>.

31. U.K. JURISDICTION TASKFORCE, *Legal Statement on Cryptoassets and Smart Contracts*, LAWTECH DELIVERY PANEL., at 10 (Nov. 2019), https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_JO_Cryptocurrencies_State_ment_FINAL_WEB_111119-1.pdf.

32. *Id.*

33. Rosemary Bigmore, *A Decade of Cryptocurrency: From Bitcoin to Mining Chips*, TELEGRAPH (May 25, 2018), <https://www.telegraph.co.uk/technology/digital-money/the-history-of-crypto-currency/>.

34. *Id.*

35. *Id.*

36. *Are Token Assets the Securities of Tomorrow?*, *supra* note 12 at 6–7.

developed for the financial industry in recent years are based on a [permissioned] model with restricted access to known and approved parties.”³⁷

Bitcoin has been the most successful cryptoasset to date.³⁸ In the month of April 2020, the price per Bitcoin was just over the \$7,000 USD mark.³⁹ The latest price shows an 8000% increase in its price since 2013, but it is not even half of what it was once valued at its peak of approximately \$20,000 USD in late 2017.⁴⁰ Bitcoin has been primarily perceived and utilized as an investment asset rather than a medium of exchange.⁴¹

Next to Bitcoin, Ether, Ripple[,] and Bitcoin Cash are considered the most important cryptocurrencies in terms of usage, market capitalization[,] or business model diversity. Although Bitcoin lost some ground vis-à-vis other cryptoassets over the last two years in the face of increased competition and uncertainty about the relative success of the different business models underlying them, its market share recovered in the course of 2018 and currently stands at [fifty-four percent] of total capitalization in the cryptocurrency market.⁴²

The historic rise and crash of the value of Bitcoin in 2017–2018 can be referred to as a bubble.⁴³ Different conclusions can be drawn about Bitcoin; however, it is not the full representation of the realm of cryptocurrencies or even more so the broader category of cryptoassets. Its recent stabilization and increase in value represent its hold of trust.⁴⁴ The performance of Bitcoin raises the issue of dramatic volatility in its value and can lead to government authorities and institutional investors being apprehensive.⁴⁵

Indeed, in response to such volatility, the two largest countries and digital markets, India and China, took steps to close their doors for cryptocurrencies.⁴⁶ In both nations, financial institutions were prohibited from facilitating transactions involving any form of cryptocurrencies, and no

37. *Id.* at 7.

38. Matt Hougan, *Beyond Bitcoin: Why There Will Be More Than One Successful Cryptoasset*, FORBES (Aug. 28, 2019), <https://www.forbes.com/sites/matthougan/2019/08/28/beyond-bitcoin-why-there-will-be-more-than-one-successful-cryptoasset/#629f3dd47b6e>.

39. *Bitcoin (BTC) Price Index*, COINDESK 20 (Apr. 2020), <https://www.coindesk.com/price/bitcoin>.

40. European Central Bank Crypto-Assets Task Force, *Implications for Financial Stability, Monetary Policy, and Payments and Market Infrastructures*, at 11, Doc. No. 223 (May 14, 2019).

41. *Id.* at 16.

42. *Id.*

43. *Id.* at 15.

44. *Id.*

45. *Id.* at 3.

46. See generally, Press Release, Reserve Bank of India, Prohibition on Dealing in Virtual Currencies (VCs), RBI/2017-18/154 (Apr. 6, 2018); see also, Staff of Global Legal Research Directorate, *Regulation of Cryptocurrency Around the World*, LAW LIBR. CONGRESS GLOB. LEGAL RSCH. CTR. at 106–07 (June 2018), <https://www.loc.gov/law/help/cryptocurrency/crypto-currency-world-survey.pdf>.

form of cryptocurrency is recognized as a legal tender.⁴⁷ The government ban on cryptocurrencies in India was recently overturned by the nation's Supreme Court,⁴⁸ but the long-term status of cryptocurrencies in India remains uncertain. This is a result of legal concerns and the highly volatile nature of cryptocurrencies.

But both China and India, along with some other nations, have embraced the idea of a nationalised digital currency. In India, the Deputy Governor of the Reserve Bank of India (RBI), B.P. Kanungo, in a policy press conference, did “recognize that the blockchain technology or the distributed ledger technology that lies beneath the virtual currencies has potential benefits for financial inclusion and enhancing the efficiency of the financial system” and stated that the RBI has “constituted an inter-departmental committee in Reserve Bank of India who will produce a report and they will explore the feasibility and desirability of issuing a digital currency by the central bank.”⁴⁹ In India, the same high-level Inter-ministerial Committee which recommended up to ten years of imprisonment for transacting in private cryptocurrencies has recommended that a Group may be constituted by the Department of Economic Affairs, with the participation of the representatives of the RBI, Ministry of Electronics and Information Technology, and Department of Financial Services for examination and development of an appropriate model of a national digital currency in India.⁵⁰

China is aiming to be world's first nation to launch its own national virtual currency.⁵¹ China's central bank, the People's Bank of China (PBOC), has been conducting a study of digital currency for over three years and has set up an Institute of Digital Money within the PBOC.⁵²

The acceptance of blockchain and DLT by both these major countries has paved the way for a government regulated virtual currency which is in line with the government's monopoly over money as a legal tender. This will also be trendsetter for other developing nations to build their own national

47. Press Release, Reserve Bank of India, *supra* note 46, at 2.

48. *Internet & Mobile Ass'n of India v. Rsrv. Bank of India*, (2020) SCC 275, 177 (India).

49. Urjit R. Patel, et al., Reserve Bank of India's First Bi-Monthly Policy Press Conference (Apr. 5, 2018), in *Edited Transcript of Press Conference*, RESERVE BANK OF INDIA (RBI), (Apr. 5, 2018), https://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=3465.

50. DEPT OF ECON. AFFAIRS INDIA, COMM. ON VIRTUAL CURRENCIES, *Report of the Committee to Propose Specific Actions to be Taken in Relation to Virtual Currencies*, at 10, 69 (Feb. 28, 2019), https://hollandfintech.com/wp-content/uploads/2019/07/Approved-and-Signed-Report-and-Bill-of-IMC-on-VCs-28-Feb-2019-2.pdf?utm_campaign=global%20Fintech%20News&utm_medium=email&utm_source=revue%20newsletter.

51. *China Aims to Launch the World's First Official Digital Currency*, ECONOMIST (Apr. 23, 2020), <https://www.economist.com/finance-and-economics/2020/04/23/china-aims-to-launch-the-worlds-first-official-digital-currency>.

52. Chuan Tian, *China's Central Bank Opens New Digital Currency Research Institute*, COINDESK (June 30, 2017), <https://www.coindesk.com/chinas-central-bank-opens-new-digital-currency-research-institute>.

digital currencies to take advantage of their underlying technologies and still regulate the markets and maintain monopoly over money.

II. Emerging Legal Issues and Problems

The rapid emergence of cryptocurrencies and other cryptoassets has caught government regulators flat-footed. These new crypto products and services do not easily fit within existing regulatory categories and programs.⁵³ Nations have scrambled to try to institute regulatory oversight of the diverse and growing range of crypto applications, with significant divergence already appearing between national responses.⁵⁴ Within each nation, tensions are growing between the desire to promote innovation and growth with the need to protect financial stability, consumer welfare, and national security.⁵⁵ Some of the key legal challenges and issues are summarized below.

A. LEGAL STATUS

The first issue is a formalistic one. Governmental regulators are straining and often competing to determine which regulatory categories should encompass cryptocurrencies and other cryptoassets.⁵⁶ Potential candidates include currencies, securities, commodities, or property.⁵⁷ Different national governments, and even different agencies within the same national government, have come to inconsistent determinations about which regulatory categories should apply to these products.⁵⁸ Moreover, given the differences between cryptoassets, some products may fall within one category, while others may be better placed within a different category.

The dual nature of cryptocurrency as medium of exchange and an investment commodity makes the concept of its ownership and possession complex.⁵⁹ Its digital form makes it harder to define its tangible or intangible nature.⁶⁰ The concept of property is a settled principle in both civil and common law countries.⁶¹ There are certain traditional parameters which determine the categorization of a tangible/intangible object as a “legal property” subject to private ownership.⁶²

53. Kate Rooney, *Your Guide to Cryptocurrency Regulations Around the World and Where They Are Headed*, CNBC (Mar. 27, 2018), <https://www.cnbc.com/2018/03/27/a-complete-guide-to-cypro-currency-regulations-around-the-world.html>.

54. *Id.*

55. *Id.*

56. Pres Release, Reserve Bank of India, *supra* note 46, at 2–3.

57. *Id.* at 52, 72, 74, 108–09.

58. *Id.* at 2–3.

59. U.K. JURISDICTION TASKFORCE, *supra* note 31 at 50.

60. *Id.*

61. *Id.*

62. *Id.*

“[T]he term property does not describe a thing itself but a legal relationship with a thing: it is a way of describing a power recognised in law as permissibly exercised over the thing.”⁶³ “The novel or distinctive features possessed by some cryptoassets—intangibility, cryptographic authentication, use of a distributed transaction ledger, decentralization, rule by consensus—do not disqualify them from being property.”⁶⁴ The cryptoassets are not “disqualified from being property” as they are a pure form of information, “or because they might not be classifiable either as things in possession or as things in action.”⁶⁵ Yet, the “virtual” nature of a cryptocurrency makes it impossible to categorize it as a tangible thing which can be possessed.⁶⁶ “Accordingly, as a matter of law they cannot be the object of a bailment” or hypothecation, though certain other types of security might be granted.⁶⁷ Many of these questions of legal status remain unanswered within and between countries.

With the expanding facets of cryptoassets, they will be subject to bankruptcy, partition, succession, and many other forms of legal relationships and proceedings.⁶⁸ Hence, clarity on the status and recognition of cryptoassets for ownership and possession is necessary for its sound integration in the social, economic and legal systems of countries. In addition to clarity within nations, consistency between nations is important to facilitate international trade and commerce involving cryptoassets. The uncertainty and poor fit in the application of existing regulatory category definitions and requirements to cryptoassets is slowing innovation and creating incentives for cryptoasset regulatory forum-shopping.⁶⁹

B. DECEPTION OF CONSUMERS AND INVESTORS

One of the very first legal problems regulators have had to confront, particularly in response to the initial Bitcoin bubble, is a proliferation of illegitimate cryptoassets offerings that were intended to deceive and steal from customers.⁷⁰ Many such schemes were nothing more than scams, cons, or Ponzi schemes with no legitimate backing or business model.⁷¹ The perception of investing in cryptocurrency to accumulate vast amounts of money over a short period of time due to its highly volatile nature attracts vulnerable groups such as students and small businessmen.⁷² Recently,

63. *Id.* at 11.

64. *Id.* at 7.

65. *Id.*

66. *Id.*

67. *Id.*

68. *Id.*

69. Joseph Lee & Florian Lheureux, *A Regulatory Framework for Cryptocurrency* (Jan. 1, 2020), <https://ssrn.com/abstract=3523862>.

70. Paul Barnes, *Cryptocurrency and Its Susceptibility to Speculative Bubbles, Manipulation, Scams and Fraud*, MUNICH PERS. REPE.C ARCHIVE, Nov. 27, 2018, at 15, 16 MPRA Paper No. 90241.

71. *Id.*

72. *Id.*

hackers called “51 Crew” hacked and controlled more than fifty-one percent of the computer network of two blockchain clones, Shift and Krypton.⁷³ The group effectively took over the verification process and enabled an online theft of \$65 million in Bitcoin.⁷⁴ The potential of such hacks with the lack of a robust regulations are hurdles for investors especially given the inability to recover their money after a fraud.⁷⁵

Hacking of cryptoasset exchanges is a common phenomenon currently.⁷⁶ There is no collective deposit insurance scheme to compensate investors in the event of a hack, nor do individual exchanges generally have arrangements in place to do so.⁷⁷ The risk of hacking associated with cryptoassets may not be something investors in conventional assets have experience with, and therefore, they may not be well placed to judge this risk.⁷⁸ It constitutes further evidence that cryptoassets are particularly ill-suited to retail investors.⁷⁹

Given the lack of institutionalized investing in cryptocurrency, and without the associated market discipline that such institutions and experienced investors bring, crypto-investors may imitate the conduct of a gambler in a behavioral sense.⁸⁰ Most people investing in this technology over-estimated the likelihood they would make money from purchasing cryptoassets and their ability to predict the outcome of their purchase.⁸¹ The G7 Working Group on Stablecoins recommended that “[a]s with any nascent technology, additional work may be required to ensure that consumers and investors are informed of all material risks as well as their individual obligations” in purchasing cryptoassets.⁸²

“The risks to retail investors may be amplified in the [initial coin offering] ICO market, where research suggests that there is a high degree of information asymmetry between” the buyers (the investors) and the entrepreneurs (the sellers).⁸³ Consumer awareness is the first step towards prudent investment. But the ultimate goal is for regulators to be able to spot

73. Raja Raman & Mahesh Mangnaik, *Blockchain Can Transform the World, but Is It Fool-Proof?*, HUFFPOST (Jan. 24, 2017), https://www.huffingtonpost.in/raja-raman/raja-ramanblockchain-can-transform-the-world-but-is-it-fool-proof_a_21660586/.

74. Lee, *supra* note 69, at 17.

75. Raman, *supra* note 73.

76. Maria Teresa Chimenti, et al., *Understanding the Crypto-Asset Phenomenon, Its Risks and Measurement Issues*, EUR. CENT. BANK (Aug. 7, 2019), https://www.ecb.europa.eu/pub/economic-bulletin/articles/2019/html/ecb.ebart201905_03~c83aeaa44c.en.html#toc1.

77. *Id.*

78. *Id.*

79. *Id.*; see also, House of Commons Treasury Committee, *Crypto-assets, 2017–19*, HC 910, at 20 (UK).

80. *How and Why Consumers Buy Cryptoassets: A Report for the FCA*, REVEALING REALITY 48, <https://www.fca.org.uk/publication/research/how-and-why-consumers-buy-cryptoassets.pdf>.

81. *Id.*

82. G7 Working Group on Stablecoins, *Investigating the Impact of Global Stablecoins*, at 10 (Oct. 2019), <https://www.bis.org/cpmi/publ/d187.pdf>.

83. *Cryptoassets in Asia: Consumer Attitudes, Behaviours and Experiences*, OECD, at 12 (2019), <https://www.oecd.org/countries/philippines/2019-cryptoassets-in-asia.pdf>.

schemes and offer targeted legal protections towards vulnerable consumers and mitigate the same.⁸⁴

C. MONEY LAUNDERING AND NATIONAL SECURITY

Cryptocurrencies are a potential security threat as they are a convenient way to transfer large amounts of assets without the ability to be traced by government authorities.⁸⁵ Due to their anonymity and limited regulation, cryptocurrencies can facilitate the sale and purchase of illicit goods and services and can be used to launder the proceeds of serious crime and terrorism.⁸⁶ Money laundering uses of cryptocurrencies is thus a concern for various strata of government.⁸⁷

These concerns are not theoretical, as there is already evidence that cryptocurrencies have been and are used for illegal activities.⁸⁸ Because transactions in cryptocurrencies can be done anonymously, they can be misused. The strong market reaction to the value of Bitcoin after the shutdown of Silk Road, a major digital market for illicit drugs, suggests that illegal activity is indeed an important feature of cryptocurrencies.⁸⁹

The European Union's anti-money laundering directive has been amended to deal with this.⁹⁰ The fifth EU Directive on the prevention of money laundering and terrorist financing, which took effect in January 2020, is a major step towards addressing the use of cryptocurrencies for money laundering and other illegal activities.⁹¹ The Directive recognizes "the anonymity of virtual currencies" and "their potential misuse for criminal purposes."⁹² Addressing the anonymity issue, the Directive states that "national Financial Intelligence Units (FIUs) should be able to obtain information allowing them to associate virtual currency addresses to the identity of the owner of virtual currency."⁹³ The Directive also suggests an assessment of the possibility of allowing users of cryptocurrencies to voluntarily "self-declare to designated authorities."⁹⁴

84. *Id.* at 13.

85. Yaya J. Fanusie, *Cryptocurrency Laundering Is a National Security Risk*, *LAWFARE* (Mar. 27, 2020), <https://www.lawfareblog.com/cryptocurrency-laundering-national-security-risk>.

86. *Bitcoin Money Laundering: How Criminals Use Crypto (And How MSBs Can Clean Up Their Act)*, *ELLIPTIC* (Sept. 18, 2019), <https://www.elliptic.co/our-thinking/bitcoin-money-laundering>.

87. *Id.*

88. G20 Meeting of Finance Ministers and Central Bank Governors, *supra* note 4, at 3.

89. Robert McMillan, *Bitcoin Values Plummet \$500M, Then Recover, After Silk Road Bust*, *WIRED* (Oct. 2, 2013), <https://www.wired.com/2013/10/bitcoin-market-drops-600-million-on-silk-road-bust/>.

90. Council Directive 2018/843, 2018 O.J. (L 156) 43, 43 (EC).

91. *Id.*

92. *Id.* at 43.

93. *Id.*

94. *Id.*

D. DATA SECURITY AND PRIVACY

As cryptoassets on blockchains have become a more popular mechanism for storing sensitive personal data and proprietary business data, the privacy and security of the information stored on such blockchains has become an important issue. Privacy issues “around personal and financial data will grow increasingly important as more data are collected and used in the provision of financial services and as machine learning and artificial intelligence techniques advance” and are integrated with blockchains.⁹⁵ Despite this importance, “data policies are difficult to coordinate across borders,” because of differing cultural views on data protection and privacy and the resulting differing privacy laws and regulations across jurisdictions.⁹⁶

Cryptocurrencies and blockchains are interconnected when the issue of privacy and data protection is concerned. Blockchain’s consensus protocol requires that all network participants can see transactions as they are added to the ledger.⁹⁷

While the transactions in a permissioned network could be stored in a hashed format so as to not reveal the contents, certain metadata will always be available to network participants. Monitoring the metadata can reveal information on the type of activity and the volume associated with the activity of any public address on the blockchain network to any participant node.⁹⁸

In the era of the European Union’s General Data Protection Regulation (GDPR), the European Union is already trying to change consumer behaviour with regard to their data.⁹⁹ Even some developing countries are trying to model their data protection laws on GDPR.¹⁰⁰ A tension has developed between blockchain and “the right to erasure (the ‘right to be forgotten’)” in recent years, as blockchains have been designed to make it difficult or impossible to modify its data.¹⁰¹ “This, of course, is hard to reconcile with the GDPR’s requirements that personal data must be amended (under Article 16 GDPR) and erased (under Article 17 GDPR) in specific circumstances.”¹⁰²

95. G7 Working Group on Stablecoins, *supra* note 82, at 10.

96. *Id.*

97. *Id.*

98. *Id.*

99. Michèle Finck, Panel for Future of Sci. & Tech., *Blockchain and the General Data Protection Regulation: Can Distributed Ledgers Be Squared with European Data Protection Law?*, July 24, 2019, at 9, EUR. PARLIAMENTARY RESOL. SERV., PE. 634.445.

100. *Id.* at II.

101. *Id.*

102. *Id.*

E. EVASION OF FINANCIAL OBLIGATIONS

The partial anonymity of cryptoassets makes them a tempting mechanism for avoiding financial responsibilities.¹⁰³ Examples include tax evasion, divorce assets, and bankruptcy claims.¹⁰⁴

There are two major challenges specifically addressing tax concerns.¹⁰⁵ The first is the uncertainty about the legal status of cryptoasset transactions, which makes the taxable basis of a transaction uncertain.¹⁰⁶ The second challenge is tracking such transactions.¹⁰⁷ The anonymity and the need for advanced infrastructure are two key advantages which the tax evaders enjoy at the moment.¹⁰⁸ This is a particularly huge issue in developing nations.¹⁰⁹

F. VOLATILITY

Unregulated cryptocurrencies and other cryptoassets replicate the behavioural nature of a traditional stock market.¹¹⁰ But in comparison to stocks or fiat currencies, cryptocurrencies do not hold an inherent value, nor are they backed by the government as legal tender.¹¹¹ As discussed above, this tends to make cryptoassets even more volatile and subject to speculation than stocks and other investments.¹¹² “The use of blockchain as a payments system exacerbates these risks, since the exchange rate (vis-à-vis other cryptoassets, or conventional currency) can fluctuate significantly during the time it takes to settle a transaction.”¹¹³ The lack of regulation makes investors vulnerable to unforeseen losses in addition to other challenges such as accountability of the virtual currencies itself.¹¹⁴

As explored in the above section, Bitcoin within half a decade increased in value by over 8,000 percent.¹¹⁵ Other cryptocurrencies “that emerged since Bitcoin have not achieved the same market capitalisation, but have exhibited similar or greater volatility.”¹¹⁶ For example, the price of Ethereum has

103. G7 Working Group on Stablecoins, *supra* note 82, at 11.

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

110. ECB Crypto-Assets Task Force, *supra* note 40, at 16.

111. House of Commons Treasury Committee, *supra* note 79, at 20.

112. See *supra* notes 33–35 and accompanying text.

113. House of Commons Treasury Committee, *supra* note 79, at 20.

114. *Id.*

115. See generally, Robert Hackett & David Z. Morris, *Where Will Bitcoin Go After ‘The Halvening?’*, FORTUNE (Apr. 29, 2020), <https://fortune.com/2020/04/29/where-will-bitcoin-go-after-the-halvening/>; see also, *Bitcoin (BTC) Price Index*, *supra* note 39.

116. House of Commons Treasury Committee, *supra* note 79, at 18.

varied from \$0 USD in August 2015 to more than \$1,400 USD in 2018, and now its value is just above \$170 USD in April 2020.¹¹⁷

To overcome the price volatility of the first generation of cryptoassets, FinTech companies have focused on “a new generation of cryptoassets known as ‘stablecoins.’”¹¹⁸ Unlike the first generation of cryptoassets, “the value of a stablecoin is pegged to one or more external sources such as fiat currency or commodities.”¹¹⁹ Even in this case, however, the issue which clouds the solution for volatility is the selection of external securities for stablecoins and its recognition by the appropriate government authorities.¹²⁰

G. PRIVATIZATION OF MONEY

The government’s ability to control and regulate the economy is an essential part of its sovereign function.¹²¹ In the modern concept of a “welfare state[,]” a key government role is “providing an infrastructure of care to enable citizens to flourish socially and economically in the same way that an infrastructure of competition does.”¹²² This foundation “provides a social security that enables citizens to create their own economic security.”¹²³ The rise of private cryptoassets threatens this central role of governments in controlling their own currencies and financial systems.¹²⁴

A strong example of this perceived threat is Facebook’s announcement that it intends to create a private cryptocurrency called Libra.¹²⁵ Headquartered in Geneva, Switzerland, Libra will be regulated by the Non-Profit Libra Association consisting of members with obligations in regard to its implementation.¹²⁶ Unlike the majority of cryptocurrencies, Libra will be fully-backed by a reserve of real assets.¹²⁷ The platform on which users will be enabled to use Libra will be operated by Facebook Inc., and every user will also be made privy to Facebook Inc.’s social media services, ensuring constant usage of Facebook driven tools and technologies.¹²⁸

117. *Ethereum*, COINMARKETCAP, <https://coinmarketcap.com/currencies/ethereum/historical-data/> (last visited July 16, 2020).

118. *Cryptoassets in Asia*, *supra* note 83, at 12.

119. *Id.*

120. *Id.*

121. Anne-Marie Slaughter, *3 Responsibilities Every Government Has Towards Its Citizens*, WORLD ECON. F. (Feb. 13, 2017), at 2, <https://www.weforum.org/agenda/2017/02/government-responsibility-to-citizens-anne-marie-slaughter/>.

122. *Id.* at 2–3.

123. *Id.* at 3.

124. Anastasia Melachrinou & Christian Pfister, *Stablecoins: A Brave New World?*, BANQUE DE FRANCE (Mar. 2020), at i, iii, WP 757, <https://publications.banque-france.fr/sites/default/files/medias/documents/wp757.pdf>.

125. Libra Ass’n Members, *Libra White Paper v2.0*, LIBRA at § 02 (April 2020), <https://libra.org/en-US/white-paper/>.

126. *Id.*

127. *Id.*

128. Melachrinou & Pfister, *supra* note 124, at 6–7.

The development and operation of a platform to use Libra will thus be run by a private corporation.¹²⁹ Instead of the will of people and a democratically-elected government, a medium of exchange will be influenced by a for-profit corporation.¹³⁰ National governments are appropriately worried about the potential displacement of their own role in controlling currencies and financial services in their jurisdiction.¹³¹

III. Divergence in National Regulation of Cryptoassets

In response to the legal issues and problems summarized in the previous section, government regulators from nations around the world have started taking action. Even though they are often addressing the same underlying problems, these regulatory authorities have already adopted divergent regulatory responses.¹³² Some of these key differences are described below.

A. GENERAL REGULATORY APPROACH

Countries have adopted dramatically different approaches in terms of their receptivity to cryptocurrencies and other cryptoassets.¹³³ Some nations, such as Malta, Bermuda, Gibraltar, and Switzerland, have adopted a highly permissive, clear, and friendly regulatory framework in an attempt to draw investment and companies to their jurisdiction.¹³⁴ Other countries, such as Russia, China, and India, have taken the opposite approach and have adopted highly restrictive or even prohibitory approaches to cryptocurrencies, the primary type of cryptoasset at this time.¹³⁵ Other countries have taken a more middle of the road or “wait and see” approach to cryptoasset regulation.¹³⁶

Initial official statements by regulators in various countries consisted of warnings to consumers and investors over the risk associated with cryptoassets, specifically Bitcoin.¹³⁷ When analysing regulation of cryptoasset activities within a single jurisdiction, analysts have noted that certain types of authorities act as first movers.¹³⁸ Given that the first set of cryptoassets were often designed and marketed as non-sovereign digital currencies, this prompted central banks, followed by government departments, such as financial regulators and financial supervisory bodies, to

129. Libra Ass'n Members, *supra* note 125, at 43.

130. *Id.*

131. Melachrinou & Pfister, *supra* note 124, at iii, 7–11.

132. IOSCO, *supra* note 7, at 8–9.

133. Press Release, Reserve Bank of India, *supra* note 46, at 3.

134. Nathaniel Popper, *Have a Cryptocurrency Company? Bermuda, Malta or Gibraltar Wants You*, N.Y. TIMES, (July 29, 2018), <https://www.nytimes.com/2018/07/29/technology/cryptocurrency-bermuda-malta-gibraltar.html>.

135. Press Release, Reserve Bank of India, *supra* note 46, at 75–76, 99–101, 106–07.

136. *Id.* at 24, 43.

137. Blandin, *supra* note 28, at 33.

138. *Id.*

clarify legal tender laws.¹³⁹ In addition to warnings to investors and consumers, these agencies have also conducted enforcement actions, developed guidance, or enacted laws to provide clarity and mitigate risk.¹⁴⁰

In addition to government regulation, those in the industry also have an incentive to design an efficient and trusted system to self-regulate because of their expertise.¹⁴¹ But self-regulation is not without risk.¹⁴² Some concerns with this policy are that members of the industry will “begin implementing or lobbying for rules that protect their interest rather than consumers.”¹⁴³ These concerns have prompted the creation of a “formally authoritative hybrid, ‘enforced self-regulation’” in some nations.¹⁴⁴ What this means is that “self-regulation occurs under the [direction] of an official mandate delivered by regulators. In such cases, industry performs many of the day to day functions of self-regulation, but a regulatory agency retains power to alter the regime, or provide additional enforcement.”¹⁴⁵

There are at least two examples of enforced self-regulatory bodies that participate in the regulation of cryptoasset activities: one in Japan and the other in Canada.¹⁴⁶ The Japan Virtual Currency Exchange Association (JVCEA) “was approved by the Japanese financial regulator as a self-regulatory body to oversee cryptoasset activities in October 2018.”¹⁴⁷ With this official status, the JVCEA was given a wide array of the responsibilities, from “setting industry standards to conducting on-site inspections and collecting data from its members.”¹⁴⁸ Furthermore, in Canada, the Investment Industry Regulatory Organization of Canada (IIROC), a national self-regulatory organization, has been given the authority to prepare regulation of blockchain applications and digital assets.¹⁴⁹

B. TERMINOLOGY

As the cryptoasset market rapidly grows, the terms used to describe different products in this market are fluid. “While the various forms of what are broadly known as ‘cryptocurrencies’ are similar in that they are primarily based on the same type of decentralized technology known as blockchain with inherent encryption, the terminology used to describe them varies greatly from one jurisdiction to another.”¹⁵⁰

139. *Id.*

140. *Id.* at 30.

141. *Id.* at 46.

142. *Id.*

143. *Id.*

144. *Id.*

145. *Id.*

146. *Id.*

147. *Id.*

148. *Id.*

149. *Id.*

150. Presse Release, Reserve Bank of India, *supra* note 46.

As a result, “[t]he absence of consensus over terminology . . . can be a key barrier to the development of a robust national regulatory framework. . . . Given the inherent cross-border nature of cryptoasset transactions, diverging interpretations of terms among regulatory bodies may facilitate regulatory arbitrage.”¹⁵¹

Across jurisdictions, “a variety of terms are used, often interchangeably and without a clear definition.”¹⁵² For example, “the terms cryptoasset and token can have different meanings depending on the context in which they are used.”¹⁵³ Accordingly, regulators and regulated entities face a host of challenges: Regulators have to “understand the nuances of the different terms[. . . identify the terminology most suitable for their regulatory objectives[, and] . . . define the terminology clearly and ensure it is used consistently in official statements.”¹⁵⁴

In official statements, regulators have been using a variety of terms to refer to cryptoassets. Between 2013 and 2019, an analysis of major regulatory statements and publications identified the use of at least ten different terms for cryptoassets: Bitcoin, virtual currency, electronic currency, cryptocurrency, digital currency, DLT asset, virtual asset, cryptoasset, digital financial asset, and digital asset.¹⁵⁵ According to the University of Cambridge Global Cryptoasset Regulatory Landscape Study, between 2013 and 2019, the term “virtual currency” was the most widely used term among the twenty-three countries included in its survey.¹⁵⁶ But use of this term has been decreasing since 2016.¹⁵⁷

Between 2017 and 2018, regulators began using new terms such as virtual asset and digital asset more often in their official statements.¹⁵⁸ Some regulators even started to use cryptocurrencies more narrowly for payment or exchange tokens in order to distinguish them from other token types, such as utility or security tokens.¹⁵⁹ Analysts have also noted that there has been move by regulators to using the more generic term “virtual currency” after the Financial Action Task Force (FATF) published its first report on virtual currencies and AML/CFT risks in June 2014.¹⁶⁰ In its report, similar to other policy makers, the FATF defined cryptocurrencies as a subset of virtual currencies.¹⁶¹ After the report, many regulators drew on the definition and terminology provided by the intergovernmental body in their official communications. A similar trend has been observed among the EU member states that adopted terms and definitions used in warnings issued by

151. *Id.*

152. *Id.* at 15.

153. *Id.*

154. *Id.*

155. *Id.* at 35.

156. Blandin, *supra* note 28, at 35.

157. *Id.*

158. *Id.*

159. *Id.* at 18.

160. *Id.* at 35

161. *Id.*

European Union central authorities such as the European Central Bank (ECB), European Banking Authority (EBA), and European Securities and Markets Authority (ESMA).¹⁶² Ultimately, it has been noted that the terms cryptocurrency, virtual currency, and digital currency have often been used interchangeably, with several regulatory documents containing all three.¹⁶³

Finally, analysts have determined that the diversity in terminology can be interpreted in two ways.¹⁶⁴ One interpretation is that “regulators are gaining a better understanding of the nuances of, and differences between, various types of tokens.”¹⁶⁵ Alternatively, the shift in terminology may also represent regulators’ continuous efforts to differentiate cryptoassets from fiat currencies (legal tenders).¹⁶⁶ Nonetheless, the lack of standardized terminology can cause misunderstandings to arise from a number of problems including errors in translation, the use of diverging terminology among regulators from the same jurisdiction, and the interchangeable use of specific terms by the same regulator across different statements and/or within a single statement.¹⁶⁷

C. REGULATORY CATEGORIZATION

One area of confusion and inconsistent practice within and between nations is the categorization of cryptoassets. This categorization will then usually help determine what regulatory requirements apply to that asset. But regulatory frameworks have been far from homogenous across jurisdictions.¹⁶⁸ This can be attributed to the various types of regulatory authorities that “each touch upon the subject of cryptoassets in a different way.”¹⁶⁹ Regulatory agencies include supranational authorities, intergovernmental bodies, judiciaries, legislatures, government departments, and independent regulatory authorities.¹⁷⁰

At the national level, regulatory responses to global cryptoasset activities have come from a wide range of public authorities.¹⁷¹ These authorities represent all three branches of government (i.e. legislature, executive, and judiciary).¹⁷² In the United States, cryptoasset markets and related activities are regulated under several federal and state regulatory regimes.¹⁷³ At the federal level, the Securities and Exchange Commission (SEC) is concerned with whether a cryptoasset is a “security,” the Commodity Futures Trading

162. Houben & Snyers, *supra* note 26, at 21.

163. Blandin, *supra* note 28, at 34.

164. *Id.* at 36.

165. *Id.*

166. *Id.* at 36.

167. *Id.* at 35.

168. *Id.* at 30.

169. Houben & Snyers, *supra* note 26, at 20.

170. Blandin, *supra* note 28, at 31.

171. *Id.* at 32.

172. *Id.*

173. *See id.* at 109.

Commission (CFTC) asks whether a cryptoasset is a “commodity,” and the Treasury Department’s Financial Crimes Enforcement Network (FinCEN) regulates certain activities involving “convertible virtual currency.”¹⁷⁴ Because a cryptoasset can be any number of these things simultaneously, it may thus be subject to any number of federal and state-level money transmitter, securities, and tax regimes, which has resulted in confusion and duplication of regulatory oversight.¹⁷⁵

D. TYPES OF REGULATORY RESPONSES

Cryptoassets are, in most cases, “inherently cross-border and cross jurisdictional.”¹⁷⁶ As a result, “most issuers of crypto-assets and trading platforms must address multiple legal and regulatory frameworks when attempting to enter the market.”¹⁷⁷ The first official report mentioning cryptoassets by a regulatory authority was published in 2011 by the French anti-money laundering (AML) regulator Tracfin, followed by the European Central Bank in 2012.¹⁷⁸ By 2014, “over [ninety percent] of analyzed jurisdictions had their first official statement published.”¹⁷⁹

Regulatory responses have to date predominantly focused on the creation and distribution of cryptocurrencies, “as well as cryptoasset exchange and trading intermediaries.”¹⁸⁰ Authorities’ responses have ranged from public warnings to investors and consumers to regulatory guidance, selected enforcement actions against non-compliant actors, outright bans, and legislation on cryptoassets in offshore financial service hubs.¹⁸¹ The Global Cryptoasset Regulatory Landscape study by the University of Cambridge distinguishes four types of regulatory responses:

Existing regulation: application of existing laws or regulations to cryptoasset activities. Clarification on the applicability of existing legal instruments typically comes from regulatory guidance. Much of the regulatory guidance has been on the applicability/relevance of securities laws and, to a lesser extent, of other laws such as banking regulations, tax, and payments provider laws. . .

Retrofitted regulation: amendment of existing laws or regulations to include one or more cryptoasset activities. A retrofitted regulation

174. *Id.* at 109–11.

175. See U.S. GOV’T ACCOUNTABILITY OFF., GAO-18-254, FINANCIAL TECHNOLOGY: ADDITIONAL STEPS BY REGULATORS COULD BETTER PROTECT CONSUMERS AND AID REGULATORY OVERSIGHT (2018), at 73.

176. Beauchamp et al., *Crypto-Asset Trading Platforms: A Regulatory Trip Around the World*, GLOB. LEGAL INSIGHTS, 9 (2019).

177. *Id.*

178. Blandin, *supra* note 28, at 34.

179. *Id.*

180. *Id.* at 41.

181. *Id.*

expands the scope of an existing law or regulation to cover certain cryptoasset activities explicitly. . .

Bespoke regulation: new law or regulation enacted or issued specifically to regulate cryptoasset activities. A bespoke regulation (typically a law) establishes a separate legal framework applicable only to cryptoasset activities. . .

Bespoke regulatory regime: a distinct regulatory framework is applied to a set of activities (typically fintech activities), of which cryptoasset activities are but one aspect. Bespoke regulatory regimes are typically legislative instruments. . .¹⁸²

These responses can be seen in a number of different countries, with the existing regulation response used in Australia,¹⁸³ the retrofitted regulation response used in Estonia,¹⁸⁴ the bespoke regulation used in Malta,¹⁸⁵ and the bespoke regulatory regime used in Mexico.¹⁸⁶

E. TAXATION

Cryptocurrencies create a lot of challenges for taxation purposes. The first issue is how to “categorize cryptocurrencies and the specific activities involving them for purposes of taxation . . . because gains made from selling cryptocurrencies can either be categorized as income or capital gains and that determines the applicable tax bracket.”¹⁸⁷ Not surprisingly, countries around the world have categorized cryptocurrencies differently for tax purposes.¹⁸⁸ In the United Kingdom, for example, corporations pay corporate tax, unincorporated businesses pay income tax, and individuals pay capital gains tax. But in Argentina and Spain, cryptocurrencies are subject to income tax.¹⁸⁹

182. *Id.* at 41.

183. Australia’s information sheet (INFO 225) on ICOs and crypto-currency exemplifies the existing regulation response. *Initial Coin Offerings and Crypto-Assets*, AUSTRALIAN SEC. & INVS. COMM’N INFO 225 (May 2019), <https://asic.gov.au/regulatory-resources/digital-transformation/initial-coin-offerings-and-crypto-currency/>.

184. Estonia’s Money Laundering Act and Terrorism Financing Prevention Act was amended to expressly cover cryptoasset exchange and wallets, demonstrating the retrofitted regulation response. Money Laundering and Terrorist Financing Prevention Act, Riigi Teataja [RT I] [State Gazette] §§ 2, 70 (Est.).

185. Malta’s Virtual Financial Assets Act exemplifies the bespoke regulation response. Virtual Financial Assets Act, 2018 (Chap. 590) (Malta).

186. Mexico’s Law to Regulate Financial Technology Institutions exemplifies the bespoke regulatory regime in Mexico. Código Civil [CC], Diario Oficial de la Federación [DOD] 03-09-2018 (Mex.).

187. *Id.*

188. *Id.*

189. *Id.* at 3.

In 2013, the U.S. Government Accountability Office (GAO) outlined “possible tax compliance risks associated with virtual currencies.”¹⁹⁰ In its statement, the GAO indicated how the buying and selling of virtual currencies could create taxable income for investors.¹⁹¹ With this information, the Internal Revenue Service (IRS) characterized Bitcoin and similar virtual currencies as property for tax purposes.¹⁹² This meant that in the United States, investors who bought and sold virtual currencies would be subject to capital gains tax.¹⁹³ Similarly, a person who mines virtual currencies can be subject to self-employment tax if he “engages in mining as a trade or business.”¹⁹⁴ Ultimately, Americans now have to either report their virtual currency transactions or face tax evasion charges.¹⁹⁵

In Canada, the Canada Revenue Agency (CRA) has characterized cryptocurrency as a commodity and not a government-issued currency.¹⁹⁶ The CRA has stated that using cryptocurrency to pay for goods or services will be treated as a “barter transaction,” which is an exchange of goods using non-legal currency.¹⁹⁷ Accordingly, goods purchased using cryptocurrency “must be included in the seller’s income for tax purposes.”¹⁹⁸

Cryptocurrencies have become an attractive means for tax evasion.¹⁹⁹ Because a lot of cryptocurrency transactions are completed anonymously, cryptocurrency users are able to enter into taxable transactions without paying taxes.²⁰⁰ Further, anonymity prevents “cryptocurrency transactions from being adequately monitored.”²⁰¹ This leaves room for tax evaders to take advantage of the system because tax authorities are unable to detect or sanction these tax evaders.²⁰² In the European Union, anonymity has undermined the EU framework for battling tax evaders.²⁰³ The EU framework is built on an exchange of information to unveil anonymity.²⁰⁴ Relevant information is meant to be released into a central database where tax authorities are able to use it to fight against tax evaders.²⁰⁵ But anonymity of cryptocurrency transactions has made it nearly impossible for

190. Tara Mandjee, *Bitcoin, Its Legal Classification and Its Regulatory Framework*, 15 J. Bus. & Sec. L. 157, 188 (2016).

191. *Id.*

192. *Id.* at 189.

193. *Id.*

194. *Id.*

195. *Id.*

196. *Virtual Currency*, GOV'T OF CANADA (June 26, 2019), <https://www.canada.ca/en/revenue-agency/programs/about-canada-revenue-agency-cra/compliance/digital-currency.html>.

197. *Id.* at 2.

198. *Id.*

199. Houben & Snyers, *supra* note 26, at 53.

200. *Id.*

201. *Id.* at 9.

202. *Id.*

203. *Id.* at 55.

204. *Id.* at 54–55.

205. *Id.* at 70.

authorities to have information on tax evaders.²⁰⁶ Accordingly, the problems of cryptoasset traceability has become so prevalent that some experts have called cryptocurrencies such as bitcoin “tomorrow’s tax havens.”²⁰⁷

IV. Arguments for and Against International Governance

A. WHAT IS INTERNATIONAL GOVERNANCE?

Before addressing the pros and cons of international governance of cryptoassets, it is first useful to answer the question of what is “international governance.” Given that world government is not on the horizon, and that each nation will retain its sovereignty, “international governance” involves some combination of international instruments or agreements superimposed on national regulation and rules.²⁰⁸ But there are many possible configurations for integrating domestic and international governance tools. The Organization for Economic Cooperation and Development (OECD) has identified some eleven different models for international governance.²⁰⁹ Some of these mechanisms can be the creation of formal new legal structures, whether they be supra-national entities, such as the European Union, or the adoption of international treaties.²¹⁰ Many observers perceive international regulatory measures in terms of such formal new legal structures, sometimes referred to as “hard law” measures because they entail governmentally enforceable rules.²¹¹

But much of the focus of international technology governance has shifted to more informal mechanisms and instruments, sometimes referred to as “soft law,” that promote international coordination or harmonization without using enforceable government-imposed rules.²¹² The OECD identified a number of such soft law mechanisms, including (i) regulatory partnerships in which two or more nations sign agreements to cooperate in promoting better quality common regulations and reducing unnecessary regulatory divergences;²¹³ (ii) guidelines or codes of conduct promulgated by inter-governmental organizations such as the OECD, World Trade Organization, international labor organizations, and many others; (iii)

206. *Id.* at 70.

207. Mandjee, *supra* note 190, at 197–88.

208. See generally *International Governance*, ENCYC. BRITANNICA, <https://www.britannica.com/topic/governance#ref1181610> (last visited July 25, 2020).

209. *International Regulatory Co-operation: Addressing Global Challenges*, ORG. FOR ECON. CO-OPERATION & DEV. [OECD], 22 (Apr. 24, 2013), <https://dx.doi.org/10.1787/9789264200463-en>.

210. *Id.* at 23.

211. See generally *id.*

212. *Id.* at 25.

213. An example is the Canada-U.S. Regulatory Cooperation Council which facilitates regular meetings and dialogue between regulators from both United States and Canadian departments with health, safety, and environmental protection mandates to reduce unnecessary differences between their regulatory frameworks. Memorandum of Understanding Regarding the Canada-United States Regulatory Cooperation Council, U.S.-Can., Jun. 4, 2018.

regional agreements by nations in a region to provide for open markets, trade cooperation, or other types of cooperation; (iv) mutual recognition agreements in which states promise to follow the legal precedence and jurisprudence of the other nations in the agreement; (v) trans-governmental networks in which regulatory officials from different nations meet at regular intervals to discuss issues of common concern; (vi) international private standards promulgated by standard-setting organizations such as the ISO; (vii) codes of conduct, professional guidelines or best practices issued by a variety of non-governmental organizations including industry trade associations, professional societies or non-governmental organizations; and (viii) information-exchange mechanisms such as online clearinghouses that allow nations to share experiences, expertise, and other technical know-how.²¹⁴

While formal international treaties are unlikely for cryptoassets in the foreseeable future, any of the variety of soft law mechanisms discussed above may be viable candidates for international governance of cryptoassets. In considering the global governance of cryptoassets, it is important to note at the outset that applications and types of cryptoassets have proliferated greatly in recent years.²¹⁵ For example, it is undisputed that the use of cryptocurrency has now been extended to investment purposes as well through Bitcoins and security tokens and hence cryptocurrencies have entered into the broad world of international investment law.²¹⁶ It is therefore quite likely that different international governance models may apply to different cryptoasset products and applications.

B. PROS OF INTERNATIONAL GOVERNANCE

There are many different potential context-specific reasons why international governance may be beneficial. Marchant and Allenby identified ten different rationales for international governance of emerging technologies and argued that different rationales or sets of rationales are applicable to different technologies or even different applications of the same technology.²¹⁷ Many of these ten rationales for international governance could potentially apply to cryptoassets.²¹⁸

For example, for mutual security reasons, nations may agree to collectively ban the development, deployment, or use of dangerous technologies such as

214. OECD, *supra* note 209, at 22–25.

215. Blandin et al., *supra* note 28, at 14.

216. *Id.* at 18.

217. Marchant & Allenby, *supra* note 9, at 108.

218. The ten rationales for international harmonization are (1) sharing burden of international goal; (2) Prevent unilateral advantage if others forgo unethical technology, (3) Regulators benefit from economy of scale/sharing resources; (4) minimize trade disputes; (5) assure equal protection for citizens of all nations; (6) ensure safe imports; (7) discourage medical tourism; (8) provide consistent requirements for regulated entities; (9) address transboundary impacts; and (10) prevent race to the bottom/ risk havens. *See id.* at 108-9.

weapons of mass destruction (rationale 2).²¹⁹ To protect their existing economic structure and regulatory frameworks, nations may join together to prohibit or restrict certain types or uses of cryptoassets that could present a security or economic risk. For example, the use of cryptoassets by international terrorists could be targeted for restriction by international agreements.

By creating mechanisms by which national regulators meet and confer with their colleagues in other nations to share their expertise, ideas, and knowledge, regulators could help share the regulatory burden of cryptoasset oversight (rationale 3). Regulating a rapidly developing and diverse technology such as cryptocurrencies consumes a lot of governmental resources and person-power. In some cases, regulators facing similar regulatory issues with an emerging technology have been able to share the burden of information gathering, testing, and developing definitions and other regulatory tools.²²⁰ This sharing can be accomplished by allocating specific tasks to regulators from different countries, or by having the regulators jointly decide issues that benefit from their collective wisdom and expertise.²²¹ In this case of cryptoassets, this sharing could involve acts such as sharing reports or tips about specific suspicious transactions with other national regulators.

The growing divergence of national cryptoasset regulations and terminology presents an increasing burden to international transactions involving such assets. To help reduce international trade disputes (rationale 4), standardized terminology, and consistent regulatory requirements across nations for cryptoassets would reduce friction, uncertainty, and conflicts in international trade. International standards for ensuring the legitimacy and soundness of cryptoasset products could also help ensure equal or minimum protection of the citizens of all nations from frauds and scams (rationale 5). Consistent national regulations can also reduce regulatory compliance costs for entities that may have to become familiar with and comply with inconsistent national regulations. International harmonization of requirements would lead to promoting efficiency for regulated parties by subjecting them to a single set of commonly agreed guidelines (rationale 7).²²² This will not only help in stabilizing the market but alongside help in promoting proper functioning of every cryptocurrency market, as well as help in auditing processes.

Protection from transboundary impacts (rationale 9) is an important goal for cryptoassets governance to prevent the open economy of cryptocurrency from influencing and harming the conservative market style of another nation. This is a part of the state's internal security, stability and integrity. An example of such assistance in addressing transboundary impacts is the release of the U.S. SEC report, the Decentralised Autonomous Organisation

219. *Id.* at 108.

220. *See id.* at 108–09.

221. *See id.*

222. *See generally id.* at 109.

(DAO), in July 2017 that lead to regulatory developments in Israel addressing this transboundary threat.²²³

Consistent, international standards would also help prevent a “race to the bottom” (rationale 10), in which some countries may be tempted to attract investment and companies by offering unjustified regulatory leniency.²²⁴ One pathology that frequently occurs with governance of global technologies is the race-to-the-bottom phenomenon, in which one or more jurisdictions seek to gain an advantage in attracting companies and investments by offering inadequate or substandard regulatory protections.²²⁵ Such a “race to the bottom” imposes a disservice on the citizens of that nation and pressures other nations to likewise cut regulatory corners to compete with the nation trying to undercut other national regulations. An international standard that sets minimum acceptable protections and requirements can prevent this dynamic.

C. CONS OF INTERNATIONAL GOVERNANCE

1. *Conflicts Between National and International Governance*

The development of international governance mechanisms for cryptoassets will not displace national regulation, at least in its entirety. This creates the potential for conflicts and tensions between international governance requirements and domestic rules. For example, the adoption of international rules for global cryptocurrencies alongside a different set of domestic regulations would likely hamper the financial regulatory regime made by national governments, such as by decreasing the state’s control over the flow of money.²²⁶ It may also affect price stability if the international cryptocurrencies substantially alter the quantity of currency in circulation and have an impact on the speed of money circulation, the use of money, and/or influence the measurement of monetary aggregates.²²⁷ This is because each traditional currency transferred to cryptocurrency, and vice versa, is unaccounted for.²²⁸ The central bank would not be able to keep track of cash flow in such a system and even the charging of sales tax would become difficult.²²⁹ This is the reason why some states have banned cryptocurrencies and why many national governments are hostile to the Facebook Libra concept.²³⁰

223. Gitit Gur Gershoren, Committee to Examine the Regulation of Decentralized Cryptographic Currency Issuance to the Public, *Interim Report*, ISR. SEC. AUTH., 48–49 (Mar. 19, 2018), <http://www.isa.gov.il/sites/ISAEng/1489/1513/Documents/DOH11718.pdf>.

224. See Marchant & Allenby, *supra* note 9, at 109.

225. *Id.* at 109.

226. F.A. HAYEK, DENATIONALISATION OF MONEY – THE ARGUMENT REFINED 9 (3rd ed. 1990).

227. *Virtual Currency Schemes*, EUR. CENT. BANK 34 (Oct. 2012), <http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf>.

228. See *id.* at 16.

229. See *id.*

230. See *supra* notes 129–31 and accompanying text.

2. *Loss of Transparency*

International governance, especially if delegated to decentralized digital platforms, could reduce the transparency of transactions for private actors and public authorities. For example, technology could be implemented to establish a technology-based self-regulatory approach that can be used to regulate international transactions and contracts.²³¹ Some investors and the contractors would want decentralization of the entire transaction so that the state cannot look into any of it. On the other hand, the state would want full transparency to regulate it for its taxation benefits, foreign direct investment (FDI) benefits, and transfer of currency benefits, all of which require that the state know about the transactions as they occur.

3. *Over-Riding National Differences*

Nations have important differences in their economic, political, legal and social infrastructures, which are often based on deep and long-standing cultural, historical, and political factors. One cost of efforts to harmonize governance at the international level is that these important and legitimate national differences can be overridden or disregarded. Such attempts at regulatory homogenization may backfire by undermining the unique culture and economic systems of individual countries.

4. *Loss of Experimentation*

One of the benefits of a nation-based governance system is that it allows a number of different governance approaches to be tried at the same time in different countries, and all national regulators and private actors can observe and learn from the approaches implemented in different nations. This nation-by-nation approach thus facilitates an experimental approach in which different governance strategies can be evaluated simultaneously. This decentralized experimental approach was memorialized in the United States, where permitting individual U.S. states to experiment with their own regulatory innovations was labeled as “laboratories of democracy.”²³² A harmonized international approach overrides this local and national experimentation in favor of a single, harmonized approach.

5. *Inefficient Use of Scarce Regulatory Resources*

International governance requires an enormous amount of regulatory resources and time to agree on initial international instruments and then to implement and enforce those international commitments. Given the

231. U.N. Comm. on Int'l Trade L., *Cryptocurrencies: International Regulation and Uniformization of Practices* 11 (Jan. 7, 2017), https://www.uncitral.org/pdf/english/congress/Papers_for_Congress/29-DOLES_SILVA-Cryptocurrencies_and_International_Regulation.pdf.

232. *Laboratories of Democracy Database*, NEW AMERICA, <https://www.newamerica.org/in-depth/laboratories-of-democracy/> (last visited July 25, 2020).

enormous differences between nations in their existing legal and regulatory systems, economic philosophes, and even language, designing global governance responses often requires seemingly endless meetings, negotiations, and analyses.²³³ Take for example the well-established problem of climate change, which has a relatively straightforward primary solution (reduce carbon emissions), and yet nations have been negotiating with only limited success for over thirty years given the complexity and challenges of getting almost 200 nations to agree on anything.²³⁴ The regulatory resources that would be needed to create international governance mechanisms for cryptoassets could arguably be more efficiently applied to national regulatory programs.

6. *Strategic Imposition of Geopolitical Power*

International governance can provide a mechanism for some nations to strategically impose their geopolitical power on other nations. Historically, such exercise of international political power has involved the most advanced industrial countries using international governance to impose their interests and values on less-developed countries.²³⁵ A well-known example is the Non-Proliferation Treaty, in which developing nations were prohibited from developing nuclear weapons while the most advanced nations in the world were grandfathered in to continue to maintain their nuclear weapon programs.²³⁶ The expropriation of international governance to favour industrialized countries at the expense of less-developed nations could also be a problem with blockchain international governance. It may also provide an opportunity and venue for power games between international powers. For example, in initial proceedings of the ISO to develop international blockchain standards, the Russian delegate reported to state “the internet belongs to the Americans—but blockchain will belong to us.”²³⁷ International governance mechanisms create the potential for zero-sum, win-loss competition and struggles between nations.

D. THE PRO-CON BALANCE

The current lack of harmonized and coordinated regulatory responses allows cryptoasset market participants to exploit regulatory loopholes and

233. See Nicolas Mialhe, *AI & Global Governance: Why We Need an Intergovernmental Panel for Artificial Intelligence*, U.N. U. CTR. FOR POL’Y RES. (Dec. 20, 2018), <https://cpr.unu.edu/ai-global-governance-why-we-need-an-intergovernmental-panel-for-artificial-intelligence.html>.

234. See Marc Hudson, *Don’t Bet on the UN to Fix Climate Change – It’s Failed for 30 Years*, CONVERSATION (Sept. 20, 2019), <https://theconversation.com/dont-bet-on-the-un-to-fix-climate-change-its-failed-for-30-years-123308>.

235. See generally Hedley Bull, *Rethinking Non-Proliferation*, 51.2 INT’L AFFAIRS 175, 175 (Apr. 1975).

236. *Id.* at 177.

237. Nathaniel Popper, *Blockchain Will Be Theirs, Russian Spy Boasted at Conference*, N.Y. TIMES (Apr. 29, 2018), <https://www.nytimes.com/2018/04/29/technology/blockchain-iso-russian-spies.html>.

circumvent regulations.²³⁸ One solution for regulators is to collaborate and cooperate to mitigate potential harms of regulatory arbitrage by creating a more consistent, harmonized, and coordinated regulatory framework in addition to enforcement measures across jurisdictions.²³⁹ Nevertheless, considering both the pros and cons of international governance of cryptoassets suggests that though the making of international governance mechanisms would have important advantages, they could also present difficult challenges and downsides. With such divergent regulatory mechanisms already in place or in development, complete harmonization of national regulation does not seem a feasible option. Moreover, the legitimate need of national governments to have some level of control over transactions occurring in their territory would prevent the complete internationalization of cryptoasset regulation.²⁴⁰

International governance for cryptocurrencies therefore needs to be more targeted at specific problems or issues, rather than holistic. For example, the harmonization of terminologies is of utmost importance to international investors, which should be the first task of any international regulation, so that in an international regime terminological understanding is clear.²⁴¹ This would in turn help in pointing out the required technical specifications, which in turn can also be dictated by these international standards, for the ease of states who do not have much technical know-how.²⁴²

At a more fundamental level, the primary value of cryptoassets is that they provide a new form of interaction and exchange that does not involve a central intermediary.²⁴³ Such transactions will operate outside the traditional scope of national government regulation even as national regulatory systems stretch to encompass these new forms of commerce.²⁴⁴ Because most cryptoassets are inherently global in application, the attempts to integrate them within traditional national regulatory systems will require international collaboration.²⁴⁵ It is these types of roles that international governance efforts should focus on.

V. International Governance Proposals and Solutions

As discussed above, international governance of cryptoassets should be targeted at specific issues or mechanisms, rather than attempting to govern

238. See *Regulation of Cryptocurrency Around the World*, L. LIBR. OF CONG. (July 24, 2020), <https://www.loc.gov/law/help/cryptocurrency/world-survey.php#compsum>.

239. See IOSCO, *supra* note 7, at 6.

240. See Press Release, Reserve Bank of India, *supra* note 46, at 3.

241. See IOSCO, *supra* note 7, at 46.

242. See *id.* at 51.

243. *Cryptocurrency Definition*, WIKIPEDIA, [https://en.wikipedia.org/wiki/Cryptocurrency#:~:text=A%20cryptocurrency%20\(or%20crypto%20currency,of%20additional%20coins%2C%20and%20to](https://en.wikipedia.org/wiki/Cryptocurrency#:~:text=A%20cryptocurrency%20(or%20crypto%20currency,of%20additional%20coins%2C%20and%20to) (last visited July 18, 2020).

244. Christian Catalini, *Blockchain Technologies and Cryptocurrencies: Implications for the Digital Economy, Cybersecurity, and Government*, 19 GEO. J. INT'L AFF. 36, 41 (Fall 2018).

245. *Id.*

cryptocurrencies generally. In this section, we first inventory the growing body of international governance initiatives and proposals that already exist. In the final section, we suggest other international governance measures that could be undertaken.

A. EXISTING INITIATIVES AND PROPOSALS

1. *European Union*

The European Union provides a limited precedent of legislative instruments issued by supranational bodies that are incorporated into domestic laws and regulation.²⁴⁶ For example, EU member states were required to transpose the provisions “including those that apply to specific cryptoasset activities, from the 5th Anti-Money Laundering Directive (5AMLD) into their domestic laws by January 2020.”²⁴⁷ But while this framework ensures a degree of harmonization across EU member states, it does not guarantee uniform regulation because each state must implement the Directive’s requirements into its own national laws.²⁴⁸ When considering cryptoasset regulation, a threshold question for regulators is whether the cryptoasset in question constitutes a “financial instrument” or “electronic money.”²⁴⁹ The EU definition of financial instrument and electronic money have been set out in Directive 2014/65/EU (MiFID II) and Directive 2009/110/EC (2EMD), respectively.²⁵⁰ But EU member states have interpreted and implemented these Directives differently; thus, it is possible that the same cryptoasset could be a financial instrument in one jurisdiction and not in another.²⁵¹ Further, not all EU enactments are binding on member states. EU regulatory authorities have provided non-legally binding guidance, such as the 2019 cryptoasset guidance published by the European Securities and Market Authority (ESMA) and the report published by the European Banking Authority (EBA).²⁵² Both emphasized the “need to ensure a level playing field among EU member states before calling on EU institutions to assess the desirability of EU-wide regulation on the topic.”²⁵³ Of course, in addition to these internal differences among EU states, these EU enactments have no authority outside the EU.

2. *Financial Action Task Force (FATF)*

Where there may not be a formal supranational authority, there may still be pressure to coordinate regulation across jurisdictions from

246. Blandin et al., *supra* note 28, at 31.

247. *Id.*

248. *See id.*

249. *See* Houben & Snyers, *supra* note 26, at 23.

250. *See* Council Directive 2014/65/EU, 2014 O.J. (L 173) 349 (EU); Council Directive 2009/110/EC, 2009 O.J. (L 267) 7 (EC). *See also id.*

251. *See* Blandin et al., *supra* note 28, at 34.

252. *Id.* at 31.

253. *Id.* at 31.

intergovernmental agencies.²⁵⁴ These agencies may promote or encourage regulatory harmonization across jurisdictions but do not enforce it.²⁵⁵ For example, a number of national regulators have promulgated official documents making reference to the FATF's latest AML recommendation which included cryptoassets.²⁵⁶ Because the FATF policies are recommendations, they have no actual enforcement power in any jurisdiction; however, they are influential in providing a common basis for national regulations and policies.²⁵⁷

3. *International Organization of Securities Commissions*

Another multi-lateral international body that can or has issued standards and guidance for the international governance of cryptoassets is the International Organization of Securities Commissions (IOSCO).²⁵⁸ In 2018, IOSCO issued a statement of concern relating to Initial Coin Offerings (ICOs), focusing on the potential international risk of unscrupulous ICOs targeting retail investors through online distribution channels often located outside the investor's home jurisdiction.²⁵⁹ In February 2020, the IOSCO issued an in-depth report describing the risks and issues that have been identified to date involving cryptoassets "that may be relevant for regulatory authorities that are considering the potentially novel and unique issues related to the regulation" of cryptoassets.²⁶⁰ The report also provides "a corresponding toolkit of measures" that individual countries may consider adopting to address the risks of cryptoassets.²⁶¹

4. *Global Consortium for Digital Currency Governance*

The novel idea of this Consortium was hatched by the World Economic Forum at the January 2020 annual Davos meeting with the intention of boosting the avenues for international coordination between various digital financial systems.²⁶² The basic aim of this body is to focus on the development of international markets for digital currencies and their impacts

254. *Id.*

255. *Id.*

256. See *Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers*, FATF 6 (2019), <https://www.fatf-gafi.org/media/fatf/documents/recommendations/RBA-VA-VASPs.pdf>.

257. See *id.*

258. See generally IOSCO, *supra* note 7.

259. *IOSCO Board Communication on Concerns Relating to Initial Coin Offerings (ICOs)*, MONDOVISIONE (Jan. 18, 2018), <https://mondovisione.com/media-and-resources/news/iosco-board-communication-on-concerns-related-to-initial-coin-offerings-icos/>.

260. IOSCO, *supra* note 7, at 28.

261. *Id.*

262. News Release, Amanda Russo, Public Engagement, World Econ. F., *Governing the Coin: World Economic Forum Announces Global Consortium for Digital Currency Governance*, (Jan 24, 2020), <https://www.weforum.org/press/2020/01/governing-the-coin-world-economic-forum-announces-global-consortium-for-digital-currency-governance>.

on financial systems, with the creation of a possible public-private partnership that includes the multiple stakeholders which will be a part of this consortium.²⁶³

The various statements made by the stakeholders all across the globe with respect to the consortium reflect a possible regime of international governance of digital currencies by opening dialogues between public and private entities and raising and addressing common concerns about security, illicit finance, and cross-border payments.²⁶⁴ The objectives of this body are not to create its own formal regulations, but rather to develop commonly agreed policy frameworks which address the concerns of all stakeholders.²⁶⁵ Such policy frameworks would influence national regulators and other policymakers.²⁶⁶

5. *Abu Dhabi Global Market (ADGM)*

The Abu Dhabi Global Market, through its Financial Services Regulatory Authority (FSRA), has proposed a global cryptoasset regulatory framework for its exclusive economic zone, which can be a model for an international framework.²⁶⁷ The proposed regulatory framework addresses issues like money laundering, financial crime, consumer protection, technology governance, custody, and exchange operations.²⁶⁸ But there are mechanisms of redress and enforcement with limited sovereignty in an exclusive economic zone that do not exist in the global scenario, thereby limiting the global application of such a framework.²⁶⁹

6. *Central Bank Initiative*

In January 2020, the central banks of England, Japan, Canada, and Sweden, along with the European Central Bank and the Bank of International Settlements, announced a joint initiative to research and coordinate policies on central bank digital currencies.²⁷⁰ Some of the common issues to be addressed include the impact of emerging technologies such as digital currencies, use cases, digital currency design options, and how

263. *Id.*

264. *See id.*

265. *Id.*

266. *Id.*

267. Press Release, Abu Dhabi Glob. Mkt. Fin. Servs. Regul. Auth., ADGM Launches Crypto Asset Regulatory Framework, (June 25, 2018), <https://www.adgm.com/media/announcements/adgm-launches-crypto-asset-regulatory-framework>.

268. *Id.* at 2.

269. *See Exclusive Economic Zone*, WIKIPEDIA, https://en.wikipedia.org/wiki/Exclusive_economic_zone (last visited Aug. 5, 2020).

270. News Release, Bank of England, Central Bank Group to Assess Potential Cases for Central Bank Digital Currencies (Jan. 21, 2020), <https://www.bankofengland.co.uk/-/media/boe/files/news/2020/january/central-bank-group-to-assess-potential-cases-for-central-bank-digital-currencies.pdf>.

such currencies could work across national borders.²⁷¹ Most central banks have begun developing their own digital currency, with such plans accelerated by the recent announcement of Facebook that it plans to launch its Libra virtual currency.²⁷² The advent of national bank virtual currencies will create a bevy of novel legal and policy issues at both the national and international levels, which this initiative is attempting to coordinate and address.²⁷³

B. SUGGESTIONS FOR OTHER INTERNATIONAL GOVERNANCE MECHANISMS

While some international governance initiatives have already been launched for cryptoassets as discussed in the previous section, additional needs and proposals have been identified as summarized below.

1. *Coordinated Anti-Terrorist Strategies*

One of the biggest potential problems with cryptoassets, and a problem that will likely grow in the future, is the exploitation of the semi-anonymous character of cryptoassets by terrorists and other international criminals to hide their financial and other activities.²⁷⁴ This problem is the singular greatest concern of nations across the world with respect to cryptoassets and is the reason why some states ban the use of cryptocurrencies given that there is no way to decode every transaction and get information about the people transacting.²⁷⁵ The FATF standards are intended to address this problem of malfeasance, but alone may not be sufficient to address the problem.

National security and law enforcement entities have their existing methods for coordinating their efforts and sharing information for investigating and stopping international terrorists and criminals. Much of this coordination is likely classified or otherwise not publicly available, and therefore, are beyond the scope of this paper. Whatever the existing arrangements, whether organized or ad hoc, additional international governance mechanisms may be possible and prudent.

One possible strategy would be an international agreement in which national authorities are responsible for identifying and keeping a registry of entities adding cryptoassets to a blockchain from their territory. Such information could be shared among intelligence and law enforcement

271. Jason Dorrier, *Five Major Central Banks Unite to Explore Launching Their Own Digital Currencies*, SINGULARITYHUB (Jan. 23, 2020), <https://singularityhub.com/2020/01/23/five-of-the-worlds-biggest-central-banks-unite-to-research-digital-currencies/>.

272. Christian Barontini & Henry Holden, *Proceeding with Caution – A Survey on Central Bank Digital Currency*, BANK FOR INT'L SETTLEMENTS (Jan. 8, 2019), BIS Papers No. 101.

273. *See generally id.*

274. *See generally* CYNTHIA DION-SCHWARZ ET AL., TERRORIST USE OF CRYPTOCURRENCIES: TECHNICAL AND ORGANIZATIONAL BARRIERS AND FUTURE THREATS (2019) (ebook).

275. *See id.* at xi.

personnel in participating nations. Of course, this proposal would remove one of the principal benefits of blockchains, which is the decentralized and semi-anonymous nature of cryptoassets stored and transacted on blockchains.

2. *International Exchange Rate Entity*

The foreign exchange regulations of nations are something which is dependent upon the foreign relations of each nation with other nations, and therefore become the subject of international regulations if present.²⁷⁶ For instance, the pricing of the rupee against the U.S. Dollar is based on a particular and dynamic calculation of assets and liabilities of nations.²⁷⁷ Likewise, there is a need for regulations when changing a particular cryptocurrency of one nation to another or to fiat currency in other nations. This issue will become more acute as states like China start to adopt their own national cryptocurrencies, which will create complexities and calls for foreign exchange regulations to control such cryptoasset transactions.²⁷⁸ Whereas national regulations and agreements have sufficed for fiat currencies issued by national governments, the proliferation of cryptocurrencies in international commerce may create the need for a common valuation mechanism for the efficient and prompt exchange of such private currencies.²⁷⁹

3. *Prohibitions on Certain Applications*

Another possible strategy would be an international agreement banning certain problematic uses of cryptocurrency such as those involving arms and drugs. While the underlying activities are usually already prohibited by existing criminal laws, the prohibition on use of cryptocurrencies to promote or finance such activities would give authorities an additional tool and leverage point for enforcement actions seeking to stop such illicit behaviors.

4. *Harmonization of Terminology*

As noted above, different nations assign different sets of meanings to similar terms as well as use different sets of terms, which complicates the understanding of international actors who will have to frame regulations and even general communication orders based on the terms used in each country in which the company has a branch.²⁸⁰ Such varied terms can lead to a lot of uncertainty and confusion to both regulators and regulated entities, as they

276. See Will Kenton, *Exchange Controls*, INVESTOPEDIA (Mar. 8, 2020), <https://www.investopedia.com/terms/e/exchangecontrol.asp>.

277. See generally Cory Mitchell, *How to Calculate Exchange Rates*, INVESTOPEDIA (June 25, 2019), <https://www.investopedia.com/articles/forex/090314/how-calculate-exchange-rate.asp>.

278. Jonathon Cheng, *China Rolls Out Pilot Test for Cryptocurrency*, WALL ST. J. (Apr. 20, 2020), <https://www.wsj.com/articles/china-rolls-out-pilot-test-of-digital-currency-11587385339>.

279. Melachrinou & Pfister, *supra* note 124, at 15.

280. See Blandin et al., *supra* note 28, at 34.

would have to know the nuances of each term in each jurisdiction to give complete meaning to it.²⁸¹ But recently many nations have picked up the practice of using the term “virtual currency” as a result of the latest FATF recommendations,²⁸² but the term has been given very wide application to include various kinds of crypto-currency. There has been an emerging difference in the meaning of digital and virtual currency.²⁸³ These problems can grow manifold when used in the legal context.

An international organization, either one already existing or one created *sui generis* for this purpose, that issued a well-accepted standardized terminology relating to cryptoassets would greatly simplify oversight of cryptoassets. An especially useful but difficult step would be an international categorization of tokens and currencies so that they can be easily regulated and understood by nations worldwide. An international terminology standard set by an international standard-setting organization like the ISO may be well suited to fill this type of need.

5. *Transnational Government Regulator Networks*

One of the most effective mechanisms for international governance of an emerging technology is an international network of governmental regulators that provides a forum for individual regulators from multiple jurisdictions to communicate and share ideas and issues that they have encountered in their own national regulation.²⁸⁴ Such a forum not only allows sharing of information, but also creates personal relationships between regulators in different nations that facilitate ongoing informal communications going forward.²⁸⁵ As the U.S. Governmental Accountability Office (GAO) found, “having defined long-term processes and accountability mechanisms in place for working with foreign counterparts can facilitate international regulatory cooperation.”²⁸⁶ Another GAO report concluded that “U.S. regulators could potentially improve their oversight of innovative fintech activities by considering adoption of some of the efforts already being successfully used by regulators abroad.”²⁸⁷ The report identified “initiatives such as regulatory sandboxes or proofs-of-concept that provide fintech firms the opportunity to operate and share information with appropriate regulators” conducted in

281. *Id.* at 54.

282. See Ryan Middleton & Tracy Molino, *The FATF's Recommendations for the Cryptocurrency Industry: Summary and Implications*, JDSUPRA (July 12, 2019), <https://www.jdsupra.com/legalnews/the-fatf-s-recommendations-for-the-22089/>.

283. See Yessi Bello Perez, *The Differences Between Cryptocurrencies, Virtual, and Digital Currencies*, THENEXTWEB (Feb. 19, 2019), <https://thenextweb.com/hardfork/2019/02/19/the-differences-between-cryptocurrencies-virtual-and-digital-currencies/>.

284. Marc A. Saner & Gary E. Marchant, *Proactive International Regulatory Cooperation for Governance of Emerging Technologies*, 55 JURIMETRICS J. 147, 159 (2015).

285. *Id.*

286. See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-588, INTERNATIONAL REGULATORY COOPERATION: AGENCY EFFORTS COULD BENEFIT FROM INCREASED COLLABORATION AND INTERAGENCY GUIDANCE (2013) at 28.

287. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-18-254, *supra* note 175, at 74.

one country have been useful in educating regulators in other countries when the information is shared.²⁸⁸

A relevant precedent might be nanotechnology, where in the early days of regulation of that technology, regulators from numerous countries convened for an annual meeting called the International Dialogue on Responsible Research and Development of Nanotechnology.²⁸⁹ A similar “International Dialogue” on cryptocurrencies would be helpful for coordinating national governance approaches for cryptoassets, either under the auspices of an existing international organization or meeting,²⁹⁰ or as a *sua sponte* mechanism as was created with nanotechnology.

6. *Global Digital Currency*

As noted above, the potential risk of cryptoassets like stablecoins to replace an increasing portion of international and intranational transactions threatens the ability of national governments to control financial stability and monetary policy.²⁹¹ The creation by joint action of national banks of a public global digital privacy would provide an alternative to projects such as Libra and replace the traditional role of the U.S. dollar in international payments.²⁹² A specific proposal for such a “Synthetic Hegemonic Currency” has recently been put forward by Mark Carney, the Governor of the Bank of England.²⁹³

VI. Conclusion

Cryptoassets are a relatively new technology and regulation of cryptoassets is even newer. International governance of cryptoassets is even newer still. Yet, as the technology of cryptoassets accelerates, and national governments struggle to keep up with their national regulations, the need for some international coordination of governance has also become apparent. In particular, the proliferation of divergent terminology and regulatory requirements create uncertainties and barriers to international commerce. Other types of problems result from governance gaps that result

288. *Id.*

289. Marchant & Allenby, *supra* note 9, at 113.

290. A potential candidate for such a convening organization would be the International Organization of Securities Commissions (IOSCO), which is an international organization that brings together national securities regulators from countries around the world. *About IOSCO*, IOSCO https://www.iosco.org/about/?subsection=about_iosco. IOSCO has already created “The ICO Network” in “which IOSCO members could discuss and share their experiences and concerns with fellow regulators.” IOSCO, *supra* note 7, at 3.

291. Melachrinou & Pfister, *supra* note 124, at 9–11.

292. *See id.* at 15–16.

293. Mark Carney, Governor, Bank of England, *The Growing Challenges for Monetary Policy in the Current International Monetary and Financial System*, Jackson Hole Symposium 2019 15 (Aug. 23, 2019) in Mark Carney: Governor, Bank of England, *The Growing Challenges for Monetary Policy in the Current International Monetary and Financial System*, BIS (Aug. 27, 2019), <https://www.bis.org/review/r190827b.pdf>.

from the transnational nature of cryptoasset applications. At the same time, regulation of cryptoassets often invokes the financial and economic sovereignty of individual nations. Accordingly, any comprehensive international legal treaty or agreement is unlikely in the near term.

More targeted international governance approaches that address specific problems or gaps are therefore a necessary and appropriate focus of oversight. A number of international governance initiatives have already been launched by various international organizations such as the European Union, the FATF, and the World Economic Forum. These early efforts at international coordination are just the initial steps of a greater need and opportunity. The possibilities and suggestions provided here attempt to point towards potential future efforts at international governance of cryptoassets.