

THE VIRTUAL
CURRENCY
REGULATION
REVIEW

SECOND EDITION

Editors

Michael S Sackheim and Nathan A Howell

THE LAWREVIEWS

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PREFACE

We are pleased to introduce the second edition of *The Virtual Currency Regulation Review* (the *Review*). The increased acceptance and use of virtual currencies by businesses and the exponential growth of investment opportunities for speculators marked late 2018 and early 2019. As examples, in May 2019, it was reported that several of the largest global banks were developing a digital cash equivalent of central bank-backed currencies that would be operated via blockchain technology, and that Facebook was developing its own virtual currency pegged to the US dollar to be used to make payments by people without bank accounts and for currency conversions.

The *Review* is a country-by-country analysis of developing regulatory initiatives aimed at fostering innovation, while at the same time protecting the public and mitigating systemic risk concerning trading and transacting in virtual currencies. On 28 May 2019, the International Organizations of Securities Commissions (IOSCO) published a report titled 'Issues, Risks and Regulatory Considerations Relating to Cryptoassets'. This report provided guidance on the unique issues concerning overseeing cryptoasset trading platforms that provide onboarding, clearing, settlement, custody, market making and advisory services for investors under the umbrella of a single venue. IOSCO advised global regulators of these platforms that their goals should be to ensure that investors are protected, fraud and manipulation are prevented, cryptoassets are sold in a fair way and systemic risk is reduced – the same goals that apply to securities regulation. IOSCO also advised that national regulators should share information, monitor market abuse, take enforcement actions against cryptoasset trading platforms when appropriate and ensure that these venues are resilient to cyberattacks. In the United States, the US Securities and Exchange Commission has not yet approved public offerings of virtual currency exchange-traded funds. The US Commodity Futures Trading Commission (CFTC) has approved of virtual currency futures trading on regulated exchanges and the trading of virtual currency swaps on regulated swap executed facilities. US regulators remain concerned about potential abuses and manipulative activity concerning virtual currencies, including the proliferation of fraudulent virtual currency Ponzi schemes. In May 2019, the US Financial Crimes Enforcement Network issued guidance concerning the application of bank secrecy laws relating to financial institutions with respect to identifying and reporting suspicious activities by criminals and other bad actors who exploit convertible virtual currencies (virtual currencies whose values can be substituted for fiat currencies) for illicit purposes. The CFTC also issued an alert offering potential whistle-blower rewards to members of the public who report virtual currency fraud or manipulation to the CFTC.

Fortunes have been made and lost in the trading of virtual currencies since Satoshi Nakamoto published a white paper in 2008 describing what he referred to as a system for peer-to-peer payments, using a public decentralised ledger known as a blockchain and

cryptography as a source of trust to verify transactions. That paper, released in the dark days of a growing global financial market crisis, laid the foundations for Bitcoin, which would become operational in early 2009. Satoshi has never been identified, but his white paper represented a watershed moment in the evolution of virtual currency. Bitcoin was an obscure asset in 2009, but it is far from obscure today, and there are now many other virtual currencies and related assets. In 2013, a new type of blockchain that came to be known as Ethereum was proposed. Ethereum's native virtual currency, Ether, went live in 2015 and opened up a new phase in the evolution of virtual currency. Ethereum provided a broader platform, or protocol, for the development of all sorts of other virtual currencies and related assets.

Whether virtual currencies will be widely and consistently in commercial use remains uncertain. However, the virtual currency revolution has now come far enough and has endured a sufficient number of potentially fatal events that we are confident virtual currency in some form is here to stay. Virtual currencies and the blockchain and other distributed ledger technology on which they are based are real, and are being deployed right now in many markets and for many purposes. These technologies are being put in place in the real world, and we as lawyers must now endeavour to understand what that means for our clients.

Virtual currencies are essentially borderless: they exist on global and interconnected computer systems. They are generally decentralised, meaning that the records relating to a virtual currency and transactions therein may be maintained in a number of separate jurisdictions simultaneously. The borderless nature of this technology was the core inspiration for the *Review*. As practitioners, we cannot afford to focus solely on our own jurisdictional silos. For example, a US banking lawyer advising clients on matters related to virtual currency must not only have a working understanding of US securities and derivatives regulation; he or she must also have a broad view of the regulatory treatment of virtual currency in other major commercial jurisdictions.

Global regulators have taken a range of approaches to responding to virtual currencies. Some regulators have attempted to stamp out the use of virtual currencies out of a fear that virtual currencies such as Bitcoin allow capital to flow freely and without the usual checks that are designed to prevent money laundering and the illicit use of funds. Others have attempted to write specific laws and regulations tailored to virtual currencies. Still others – the United States included – have attempted to apply legacy regulatory structures to virtual currencies. Those regulatory structures attempt what is essentially 'regulation by analogy'. For example, a virtual currency, which is not a fiat currency, may be regulated in the same manner as money, or in the same manner as a security or commodity. We make one general observation at the outset: there is no consistency across jurisdictions in their approach to regulating virtual currencies. That is, there is currently no widely accepted global regulatory standard. That is what makes a publication such as the *Review* both so interesting and so challenging to assemble.

The lack of global standards has led to a great deal of regulatory arbitrage, as virtual currency innovators shop for jurisdictions with optimally calibrated regulatory structures that provide an acceptable amount of legal certainty. While some market participants are interested in finding the jurisdiction with the lightest touch (or no touch), most legitimate actors are not attempting to flee from regulation entirely. They appreciate that regulation is necessary to allow virtual currencies to achieve their potential, but they do need regulatory systems with an appropriate balance and a high degree of clarity. The technology underlying virtual currencies is complex enough without adding layers of regulatory complexity into the mix.

It is perhaps ironic that the principal source of strength of virtual currencies – decentralisation – is the same characteristic that the regulators themselves seem to be displaying. There is no central authority over virtual currencies, either within and across jurisdictions, and each regulator takes an approach that seems appropriate to that regulator based on its own narrow view of the markets and legacy regulations. We believe optimal regulatory structures will emerge and converge over time. Ultimately, the borderless nature of these markets allows market participants to ‘vote with their feet’, and they will gravitate toward jurisdictions that achieve the right regulatory balance of encouraging innovation and protecting the public and the financial system. It is much easier to do this in a primarily electronic and computerised business than it would be in a bricks-and-mortar business. Computer servers are relatively easy to relocate; factories and workers are less so.

The second edition of the *Review* provides a practical analysis of recent legal and regulatory changes and developments, and of their effects, and looks forward to expected trends in the area of virtual currencies on a country-by-country basis. It is not intended to be an exhaustive guide to the regulation of virtual currencies globally or in any of the included jurisdictions. Instead, for each jurisdiction, the authors have endeavoured to provide a sufficient overview for the reader to understand the current legal and regulatory environment.

Virtual currency is the broad term that is used in the *Review* to refer to Bitcoin, Ether, tethers and other stablecoins, cryptocurrencies, altcoins, ERC20 tokens, digital, virtual and cryptoassets, and other digital and virtual tokens and coins, including coins issued in initial coin offerings. We recognise that in many instances the term virtual currency will not be appropriate, and other related terms are used throughout as needed. In the law, the words we use matter a great deal, so, where necessary, the authors of each chapter provide clarity around the terminology used in their jurisdiction and the legal meaning given to that terminology.

Based on feedback on the first edition of the *Review* from members of the legal community throughout the world, we are confident that attorneys will find the updated second edition to be an excellent resource in their own practices. We are still in the early days of the virtual currency revolution, but it does not appear to be a passing fad. The many lawyers involved in this treatise have endeavoured to provide as much useful information as practicable concerning the global regulation of virtual currencies.

The editors would like to extend special thanks to Ivet Bell (New York) and Dan Applebaum (Chicago), both Sidley Austin LLP associates, for their invaluable assistance in organising and editing the second edition of the *Review*, and particularly the United States chapter.

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Sidley Austin LLP

New York and Chicago

August 2019

UNITED STATES

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I INTRODUCTION TO THE LEGAL AND REGULATORY FRAMEWORK

In the United States, multiple regulators may assert overlapping jurisdiction for market participants transacting in virtual currencies or other digital assets. Legal and regulatory regimes to be considered include those overseen at the federal level by the US Securities and Exchange Commission (SEC), the US Commodity Futures Trading Commission (CFTC), the Financial Crimes Enforcement Network (FinCEN), the Office of Foreign Asset Control (OFAC) of the US Treasury Department and federal banking regulators. In addition, US states have legal and regulatory regimes that should be considered when undertaking virtual currency activities, including state money transmitter requirements, the New York ‘BitLicense’, and state ‘blue sky’ laws applicable to digital asset securities transactions. Commercial, tax and bankruptcy laws should also be considered in virtual currency transactions.

The SEC regulates digital asset transactions if they are offered or traded as securities or if they are offered through a collective investment fund. The SEC has published reports and guidance related to the offering of, secondary trading in and investing in digital securities. The Securities Act of 1933 (the Securities Act) makes it unlawful for any person to make use of the means or instrumentalities of interstate commerce to offer or sell a security unless such security is registered with the SEC or there is an applicable exemption from the registration requirements. A threshold consideration in trading or investing in digital assets is whether the particular digital asset is a security and therefore subject to the federal securities laws. The inquiry into whether a particular digital asset is a security and thus subject to the federal securities laws is based on the facts and circumstances surrounding the offer and sale of each digital asset. Further, registration requirements under the Securities Exchange Act of 1934 (the Exchange Act) extend to market participants involved in the offer or secondary trading of digital asset securities. The SEC’s digital asset guidance, settlement orders and enforcement actions help to shed light on how the legal and regulatory framework applies to different digital asset business models.

The CFTC, the primary federal derivatives regulator in the United States, regulates certain transactions in virtual currencies as commodities. The CFTC has jurisdiction over virtual currency derivatives transactions and has brought civil enforcement cases against

1 Michael S Sackheim is senior counsel; Nathan A Howell, Geoffrey F Aronow, James B Biery, James Munsell, Lilya Tessler, Michael A Levy, Pamela J Martinson, David E Teitelbaum, Dominique Gallego, Andrew P Blake, Teresa Wilton Harmon and Alex R Rovira are partners; Daniel Engoren, Christopher Masterson, David A Miller, Verity A Van Tassel Richards and Sean A Smith are associates; and Kenny Terrero is counsel at Sidley Austin LLP. Special thanks to Ivet A Bell and Daniel J Applebaum, associates, for their editorial assistance with this chapter.

virtual currency derivatives trading facilities alleging failures to comply with the CFTC's requirements for regulated derivatives exchanges. The CFTC also has broad authority to bring civil enforcement actions where there is fraud or manipulation with respect to any commodity transaction in interstate commerce, even if the transaction is not a derivatives transaction (i.e., even if it is not a futures contract, swap or option). Because virtual currencies are commodities as the term is defined in the Commodity Exchange Act (CEA), the CFTC maintains that it can police any fraudulent, deceptive or manipulative activity involving virtual currency spot, cash and forward transactions, making the CFTC a key player in the US regulatory regime for virtual currencies.

FinCEN regulates money services transmitters and has issued interpretative guidance for virtual currency exchanges. Some states also require licensing of money transmitters, including those that facilitate the transmission of virtual currencies. The federal banking agencies have closely monitored banking activities involving virtual currencies. In mid-2018, the former Chair of the CFTC testified before Congress that there may be a gap in the oversight of virtual currencies that are not securities, stating that regulatory oversight through state money transmission regulations is not satisfactory and that the US Congress might consider giving the CFTC or another federal agency the authority to write new rules for spot digital asset markets, including new registration requirements. Each of the 50 states in the United States has its own securities and financial services regulator, many of whom are involved in monitoring activities regarding virtual currencies and in some cases have brought enforcement actions where they found fraud or money laundering.

This chapter reviews the web of concurrent and overlapping regulatory jurisdiction and developments in the United States regarding virtual currency and digital assets, including regulatory requirements applicable to intermediaries and trading platforms.

II SECURITIES AND INVESTMENT LAWS

In this Section, we discuss securities and commodities laws and regulations that apply to digital assets. See Section V (Regulation of Miners), Section VI (Regulation of Issuers and Sponsors) and Section VII (Criminal Fraud and Enforcement) for discussions that also implicate securities and commodities laws as they relate to digital assets.

i Digital asset securities

A threshold consideration in trading or investing in digital assets is whether the particular digital asset is a security and therefore subject to the federal securities laws. Section 5 of the Securities Act makes it unlawful for any person to make use of the means or instrumentalities of interstate commerce to offer or sell a security unless such security is registered with the SEC or there is an applicable exemption from the registration requirements.² In July 2017, the SEC issued a Report of Investigation (the DAO Report) analysing whether the offer and sale of a digital asset was subject to the federal securities laws.³ The digital asset in question was a token issued by an entity known as the Decentralized Autonomous Organisation (DAO), an unincorporated organisation. The DAO was created by a German corporation

2 Securities Act § 5 (codified at 15 U.S.C. § 77e (2018)).

3 Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, Exchange Act Release No. 81207 (July 25, 2017) (DAO Report), <https://www.sec.gov/litigation/investreport/34-81207.pdf>.

named Slock.it UG, and by the time the DAO Report was issued, the DAO had offered and sold approximately 1.15 billion DAO tokens in exchange for a total of approximately 12 million Ether, a virtual currency used on the Ethereum blockchain, which had a value, at the time the offering closed, of approximately US\$150 million.

The SEC analysed whether the DAO token was an investment contract, and therefore a security, as defined by the Supreme Court of the United States (the Court) in the seminal case, *SEC v. WJ Howey Co.*,⁴ which involved the offer and sale of interests in an orange grove. The Court defined an investment contract as an investment of money in a collective enterprise with a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others. In the DAO Report, the SEC approvingly quoted from the Court's observation that this definition embodies a 'flexible rather than a static principle, one that is capable of adaptation to meet the countless and variable schemes devised by those who seek the use of the money of others on the promise of profits'.⁵

The DAO token represented an ownership interest in a collective vehicle whereby monies raised by the token sales would be used to fund various blockchain projects that could provide holders with a return on their investment. DAO token holders could vote on which projects to fund; however, before a project could be voted on, it first had to be reviewed and approved by one of the DAO's curators, which was a group of individuals selected by Slock. These curators performed crucial security functions and maintained ultimate control over which proposals could be submitted to, voted on and funded by the DAO.

Presented with this fact pattern, the SEC concluded that the DAO token was an investment contract. There was (1) an investment of money (in this case, Ether) in (2) a common enterprise (the DAO platform), with the (3) expectation of profits (promotional materials informed investors that the DAO was a for-profit entity whose objective was to fund projects in exchange for a return on investment) (4) derived from the efforts of others (Slock.it and the curators). Although the DAO token holders did have voting rights, the SEC concluded that the voting rights were limited, and that the holders were substantially reliant on the managerial efforts of Slock.it and the curators. As an investment contract, the DAO Report noted that the offer and sale of the DAO token was required to be registered under the Securities Act (unless a valid exemption from registration applied), and that platforms trading DAO tokens that met the definition of an exchange would need to register as such under the Exchange Act.

Following the issuance of the DAO Report, blockchain market participants focused on the two elements of the investment contract test that could potentially lead to a different conclusion than the one reached by the SEC with respect to the DAO token. Under the *Howey* test, the first two elements would likely always be met: an investment of money in a common enterprise. However, the question arises of whether token projects could avoid triggering the second two elements of the *Howey* test – the expectation of profits and being derived from the efforts of others. For example, what if the value of the token was not primarily to provide a return on investment, but rather to enable the holder to do something that he or she could not do without a token, such as purchase a good or service available through the network on which the token was created? Or, what if the holder's expectation of profits did not rely on the efforts of others, but rather the holder had the power to create his or her own return on investment? What if there was no potential for profit or capital appreciation at all?

4 328 U.S. 293 (1946).

5 *id.*, at 299.

In December 2017, the SEC provided further clarity for blockchain participants in a cease-and-desist order issued to Munchee Inc, a California corporation (Munchee).⁶ Munchee commenced business operations when it launched an iPhone app in 2015 (Munchee App), which allowed users to review meals and upload pictures. In early 2017, Munchee sought to raise capital through the development and issuance of a digital token (MUN token). The issuance of the MUN token purported to address the issues raised by the SEC in the DAO Report. For example, Munchee characterised the MUN tokens as utility tokens, because there was a real use case for the MUN token in connection with the already existing Munchee App. The SEC's order quickly addressed the first two elements of the *Howey* analysis and focused on the manner of sale of the MUN token. The order stated that 'investors' expectations were primed by Munchee's marketing of the MUN token offering', and listed several examples of how the marketing of the MUN tokens offered investors hope and expectations that their investments would increase in value. Munchee's marketing materials also stated that Munchee would 'ensure that MUN token is available on a number of exchanges in varying jurisdictions', thereby ensuring MUN token holders could buy and sell MUN on secondary markets to realise the purported increases in value. Additionally, the SEC noted that Munchee and its agents marketed the MUN token to people interested in investing in digital assets instead of marketing to restaurant owners and food critics. Directly addressing the utility token argument that developed after the DAO Report, the SEC stated that 'even if MUN tokens had practical use at the time of the offering, it would not preclude the token from being a security. Determining whether a transaction involves a security does not turn on labelling [. . .] but instead requires an assessment of the economic realities underlying the transaction.'

In June 2018, the SEC's Director of the Division of Corporation Finance, William Hinman, made an important speech in which he provided further guidance refining the SEC's approach to analysing when a digital asset is offered as an investment contract and therefore is a security.⁷ He framed the question differently by focusing not on the digital asset itself, but rather on the circumstances surrounding the digital asset and the manner in which it is sold. He conceded that the token, or 'whatever the digital information packet is called', is not a security all by itself, just as the interests in the orange grove in *Howey* were not. The token is 'simply code'. Instead, 'the way it is sold – as part of an investment; to non-users; by promoters to develop the enterprise – can be, and, in that context, most often is, a security – because it evidences an investment contract. And regulating these transactions as securities transactions makes sense.' When there is information asymmetry between promoters or founders and investors, then the protections of the Securities Act – namely, disclosure and liability for material misstatements and omissions – are necessary and appropriate.

On the other hand, Hinman noted that '[i]f the network on which the token or coin is to function is sufficiently decentralised – where purchasers would no longer reasonably expect a person or group to carry out essential managerial or entrepreneurial efforts – the assets may not represent an investment contract. Moreover, when the efforts of the third party are no longer a key factor for determining the enterprise's success, material information

6 *In the Matter of Munchee Inc*, Securities Act Release No. 10445, Admin. File No. 3-18304 (Dec. 11, 2017), <https://www.sec.gov/litigation/admin/2017/33-10445.pdf>.

7 William Hinman, Director, US Sec. and Exch. Comm'n Div. of Corp. Fin., 'Digital Asset Transactions: When *Howey* Met Gary (Plastic), Remarks at the Yahoo Finance All Markets Summit: Crypto' (June 14, 2018), <https://www.sec.gov/news/speech/speech-hinman-061418>.

asymmetries recede.’ Hinman put both Bitcoin and Ether into this latter category – as digital assets where there is no central third party whose efforts are a key determining factor in the common enterprise, and where it would seem that the disclosure regime of the federal securities laws would provide little value to the holders of Bitcoin and Ether.

In other words, as has always been the case, an investment contract can be made out of virtually any asset, including digital assets, so long as the investor is reasonably expecting profits from the promoter’s efforts. As Hinman reiterated, ‘the economic substance of [a] transaction determines the analysis, not the label’. Similarly, an investment contract can also be unwound or undone. The management contract for the orange grove can be terminated. With regard to digital assets, it is a novel idea that this transition or change would or could occur as a result of changes to the facts and circumstances associated with the token, without necessarily any action taken or to be taken by the holder. In response to Hinman’s speech, many market participants sought clarity as to the precise mix of facts that would distinguish the sale of digital assets from a securities transaction.

In April 2019, the SEC’s Strategic Hub for Innovation and Financial Technology (FinHub)⁸ released a framework (the Framework) for applying the investment contract analysis set forth in *Howey* and its progeny to digital assets to ‘help market participants assess whether the federal securities laws apply to the offer, sale, or release of a particular digital asset’.⁹ While the Framework does not create new law, it provides the SEC staff’s view as to whether specific facts commonly present in the digital asset context make it more or less likely that specific elements of the *Howey* test are met. In addition, the Framework provides additional factors to consider that may be indicative of whether a digital asset is offered with ‘consumptive’ intent (as opposed to investment intent) and highlights particular facts that may change over time to be considered in determining whether and when a subsequent offering and sale of a digital asset previously sold as a security may no longer be considered an offering and sale of a security. Specifically with respect to ‘virtual currency’, the Framework notes that the ability to use the virtual currency immediately to make payments for goods and services without having to convert it to another digital asset or real currency may make it less likely the *Howey* test is met.

On the same day that the Framework was released, the SEC Division of Corporation Finance issued its first no-action letter relating to the offer and sale of a digital asset.¹⁰ In providing relief that the relevant tokens would not be required to register under the Securities Act or the Exchange Act, the Division of Corporation Finance particularly noted that: (1) the issuer would not use funds from the token sale to develop the related application and that the application would be fully developed and operational at the time tokens are sold; (2) the tokens would be immediately usable for their intended functionality (purchasing air charter services) at the time they are sold; (3) the tokens could not be transferred external to the application; and (4) the tokens would always be sold at a fixed price and redeemable for services valued at that price.

8 The SEC launched FinHub in October 2018 as a ‘resource for public engagement on the SEC’s FinTech-related issues and initiatives’, including digital assets. FinHub is staffed by personnel from across the SEC’s divisions and offices.

9 ‘Framework for ‘Investment Contract’ Analysis of Digital Assets’, US Sec. and Exch. Comm’n (Apr. 3, 2019), <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets>.

10 *TurnKey Jet, Inc.*, SEC No-Action Letter (Apr. 3, 2019), <https://www.sec.gov/divisions/corpfin/cf-noaction/2019/turnkey-jet-040219-2a1.htm>.

ii Certain market participants

In planning to negotiate, effect, clear or settle transactions in virtual currencies that are securities,¹¹ market participants should evaluate whether their activities may trigger registration and related requirements under the framework of the Exchange Act, which is administered by the SEC. In particular, market participants should be aware of the definitions of broker,¹² dealer,¹³ exchange,¹⁴ alternative trading system (ATS),¹⁵ clearing agency¹⁶ and transfer agent.¹⁷ The SEC has increasingly made clear that it intends to regulate virtual currencies to the extent of its existing authority in these areas.

For example, the SEC's Division of Trading and Markets and Division of Enforcement published a joint statement in which they noted that trading venues on which individuals buy tokens that are securities as part of an ICO (or in secondary transactions) may be required to register with the SEC as a national securities exchange or otherwise avail themselves of an exemption from registration, such as by filing as an ATS.¹⁸ The SEC addressed this same point in its July 2017 issuance of the DAO Report.¹⁹ There, it found that certain platforms that facilitated trading of certain DAO tokens that constituted securities appeared to violate Section 5 of the Exchange Act by engaging in activities that met the definition of an exchange (i.e., matching the orders of multiple buyers and sellers for execution using non-discretionary methods) without being registered as such or relying on an available exemption from registration.

Below is a general overview of some of the most common registration types and related requirements under the Exchange Act that may be triggered by transacting in or otherwise facilitating transactions in virtual currencies that are securities.

Broker-dealers

Registration with the SEC is generally required for any entity that meets the statutory definition of a broker or dealer, including with respect to their activities in virtual currencies that are securities. A securities broker includes any person who is engaged in the business of effecting transactions in securities for the accounts of others.²⁰ Exceptions from the broker definition are also available to a bank,²¹ as defined under the Exchange Act, that only engages in certain securities activities (e.g., third-party brokerage arrangements, trust activities, stock purchase plans and sweep accounts).²² A securities dealer includes any person engaged in the business of buying and selling securities for such person's own account, regardless of whether through a broker or otherwise. However, the definition also includes an exception

11 As described herein, many, but not all, virtual currencies are viewed by US regulators as being securities.

12 15 U.S.C. § 78c(a)(4) (2018).

13 *id.*, § 78c(a)(5).

14 *id.*, § 78c(a)(1).

15 17 C.F.R. § 242.300(a) (2018).

16 15 U.S.C. § 78c(a)(23) (2018).

17 *id.*, § 78c(a)(25).

18 Divs. of Enf't and Trading and Mkts., US Sec. and Exch. Comm'n, 'Statement on Potentially Unlawful Online Platforms for Trading Digital Assets' (Mar. 7, 2018), <https://www.sec.gov/news/public-statement/enforcement-tm-statement-potentially-unlawful-online-platforms-trading>.

19 DAO Report, footnote 3.

20 15 U.S.C. § 78c(b)(4) (2018).

21 *id.*, § 78c(a)(6).

22 *id.*, § 78c(a)(4)(B).

for persons who are not in the business of dealing in securities. Specifically, the dealer-trader exception states that a person is generally not acting as a dealer where that person trades for his or her own account but not as part of a regular business. The SEC Division of Trading and Markets has also published a significant volume of guidance in the form of no-action letters that further address when a person may be engaged in broker or dealer activities, but SEC staff would not recommend enforcement action by the agency if the person engages in the specified activities without becoming registered. Consideration of that guidance is therefore also relevant to a market participant's own evaluation of whether it is acting as broker or dealer and must register.

Section 15(a)(1) of the Exchange Act generally requires registration of any person who acts as a broker or dealer, as described above, and who uses instrumentalities of interstate commerce²³ 'to effect any transaction in, or to induce or attempt to induce the purchase or sale of, any security (other than an exempted security or commercial paper, bankers acceptances or commercial bills)'.²⁴ Registration with the SEC requires the submission of Form BD (Uniform Application for Broker-Dealer Registration) through the Central Registration Depository, which is currently the central licensing and registration system operated by the Financial Industry Regulatory Authority, Inc (FINRA). Unless a broker-dealer is a member of a US national securities exchange and generally limits its securities activities to trading on that exchange, it must also become a member of FINRA, which is the national securities association in the United States for broker-dealers that, among other things, has surveillance and enforcement authority over its members. To apply to become a member of FINRA, broker-dealers must complete a detailed new membership application that requires an applicant to provide FINRA with, among other things, detailed written supervisory and compliance procedures. On 6 July 2018, FINRA issued Regulatory Notice 18-20 requesting member firms to notify FINRA if 'it, or its associated persons or affiliates, currently engages, or intends to engage, in any activities related to digital assets, such as cryptocurrencies and other virtual coins and tokens'.²⁵ The notice also reminds FINRA members of the requirement to submit a Continuing Membership Application pursuant to NASD Rule 1017 and receive approval from FINRA before engaging in a material change in business operations, but does not state that activities related to digital assets would per se be a material change.

Among other considerations regarding acting as a broker-dealer in respect of virtual currencies that are securities, market participants should consider the compatibility of their planned activities with the existing requirements of the SEC's financial responsibility rules.²⁶ For example, broker-dealers are generally required by SEC Rule 15c3-3(b)(1) to promptly obtain and thereafter maintain control of all fully paid and excess margin securities that are

23 *id.*, § 78c(a)(17).

24 *id.*, § 78o(a)(1). A broker-dealer and its personnel must also, separately and independently, comply with the securities (or 'blue sky') laws, and in particular the broker-dealer and agent and salesperson registration requirement, of each US state and territory (including the District of Columbia) in which the broker-dealer and its personnel conduct securities activities, even if the broker-dealer does not maintain a place of business in such state.

25 Fin. Indus. Regulatory Auth. Inc., Regulatory Notice 18-20, 'FINRA Encourages Firms to Notify FINRA if they Engage in Activities related to Digital Assets' (July 6, 2018).

26 See Lilya Tessler, David M Katz, Steffen Hemmerich & Daniel Engoren, 'Custody of Digital Asset Securities: A Proposal to Address Open Questions for Broker-Dealers Under the SEC's Customer Protection Rule', *Blockchain 2019: A Sidley Austin LLP Educational Series* (Mar. 18, 2019), <https://www.sidley.com/en/insights/publications/2019/03/custody-of-digital-assets-securities>.

carried for the account of a customer.²⁷ The terms fully paid securities²⁸ and excess margin securities²⁹ are separately defined in Rule 15c3-3, and broker-dealers frequently satisfy this obligation today through custody of the securities at a clearing agency (e.g., the Depository Trust Company (DTC) or a custodian bank) because those locations are recognised in Rule 15c3-3(c) as being under the control of the broker-dealer. In terms of virtual currencies that are securities, however, the same recognised good control locations may not be practicable depending on the characteristics of the financial instruments and how they are issued and maintained. Accordingly, a broker-dealer should evaluate its planned activities against the SEC's control requirement, including whether it may need to apply to the SEC for the recognition of a new control location pursuant to Rule 15c3-3(c)(7). On 8 July 2019, the SEC's Division of Trading and Markets and FINRA's Office of General Counsel issued a joint statement on broker-dealer custody of digital asset securities that contained regulatory considerations applicable to various market participants, including those related to noncustodial broker-dealer models, the application of SEC Rule 15c3-3 to broker-dealer custody and books and records and financial reporting rules.³⁰

Exchanges and ATSS

In general under the Exchange Act, an exchange is defined to mean a system that brings together the orders for securities of multiple buyers and sellers, and uses established, non-discretionary methods (whether by providing a trading facility or by setting rules) under which such orders interact with each other.³¹ As noted above, the SEC and its staff have emphasised recently that market participants who facilitate transactions in virtual currencies that are securities may come within the definition of an exchange, and that any such entity or group of persons that performs the functions typically provided by a securities exchange must either register as a national securities exchange, pursue an exemption from the definition of an exchange³² or become an ATS that is operated by a broker-dealer. Under the regulatory framework administered by the SEC, an ATS is a national securities exchange; however, it is exempt from such registration provided that it complies with the requirements of the SEC's Regulation ATS.³³

The regulatory burdens associated with registering and operating as a national securities exchange are significantly greater than those associated with an ATS. For example, the registration process for an exchange involves completing and submitting Form 1 to the SEC, which is published for public notice and comment. By contrast, the submission of Form ATS to the SEC is not subject to the same public notice and comment process. Additionally, under Section 6(b)(2) of the Exchange Act,³⁴ a national securities exchange is generally required

27 17 C.F.R. § 240.15c3-3(b)(1) (2018).

28 *id.*, § 240.15c3-3(a)(3).

29 *id.*, § 240.15c3-3(a)(5).

30 Div. of Trading and Mkts., US Sec. and Exch. Comm'n, Office of Gen. Counsel, Fin. Indus. Regulatory Auth. Inc., 'Joint Staff Statement on Broker-Dealer Custody of Digital Asset Securities' (July 8, 2019), <https://www.sec.gov/news/public-statement/joint-staff-statement-broker-dealer-custody-digital-asset-securities>.

31 15 U.S.C. § 78c(a)(1) (2018); 17 C.F.R. § 240.3b-16(a) (2018).

32 The SEC has authority to exempt an entity from the exchange definition. 15 U.S.C. § 78e (2018); 17 C.F.R. § 240.3b-16(e) (2018).

33 17 C.F.R. § 240.3a1-1(a)(2) (2018).

34 15 U.S.C. § 78f(b)(2) (2018).

to permit any broker-dealer or natural person associated with a broker-dealer to become a member of the exchange. An ATS is not subject to this obligation, and therefore it has more discretion over who it allows to participate. The rules of an exchange also generally cannot be amended without the advance submission of rule changes to the SEC pursuant to Section 19(b)(1) of the Exchange Act, which are published for public notice and comment and may take up to 240 calendar days for the SEC to approve or disapprove.³⁵ No such rule filing requirement currently applies to an ATS that wishes to change its operating procedures. Changes to the operating procedures of an ATS are made pursuant to an amendment to Form ATS or Form ATS-N, are not approved by the SEC, and need only be submitted to the SEC 30 days (at most) in advance of implementation of the change.³⁶ Exchanges are also subject to the requirements of the SEC's Regulation Systems Compliance and Integrity (Regulation SCI),³⁷ which require detailed policies, procedures and monitoring to ensure the integrity and resiliency of most exchange systems. ATSs are generally not subject to these same requirements, unless they exceed certain volume thresholds in a given security.³⁸

Clearing agencies

Market participants who plan to engage in post-trade activities related to transactions in virtual currencies that are securities should closely examine whether their activities may rise to the level of performing clearing agency functions. The term clearing agency under Section 3(a)(23)(A)³⁹ of the Exchange Act is defined broadly to generally include any person who:

- a* acts as an intermediary in making payments or deliveries, or both, in connection with transactions in securities;
- b* provides facilities for the comparison of data regarding the terms of settlement of securities transactions, to reduce the number of settlements of securities transactions or for the allocation of securities settlement responsibilities;
- c* acts as a custodian of securities in connection with a system for the central handling of securities whereby all securities of a particular class or series of any issuer deposited within the system are treated as fungible and may be transferred, loaned or pledged by bookkeeping entry, without physical delivery of securities certificates; or
- d* otherwise permits or facilitates the settlement of securities transactions or the hypothecation or lending of securities without physical delivery of certificates.

In practice, this reaches firms that operate as a central counterparty to novate, net and guarantee securities settlement obligations or that operate as a central securities depository (e.g., DTC) to transfer ownership by book entry. However, the SEC has also recognised in guidance that it may capture firms performing other common types of functions in the securities markets. These include, but are not limited to collateral management activities –

35 id., § 78s(b)(1).

36 17 C.F.R. § 242.304(a)(2)(i)(A) (2018).

37 id., § 242.1000 et seq.

38 id., § 242.1000 (defining SCI alternative trading system).

39 15 U.S.C. § 78c(a)(23)(A) (2018).

involving calculating collateral requirements and facilitating the transfer of collateral between counterparties and trade matching services – whereby an intermediary compares trade data to reduce the number of settlements or to allocate settlement responsibilities.⁴⁰

Like the registration and operation of a national securities exchange, the registration and operation of a registered clearing agency involves significant regulatory requirements that include, but are not limited to, the submission of proposed rule changes to the SEC and compliance with Regulation SCI. Accordingly, market participants who believe that their activities may come within the clearing agency definition may wish to consider whether they nonetheless qualify for certain exclusions from the clearing agency definition in Section 3(a)(23)(B) of the Exchange Act,⁴¹ or whether it would be appropriate to pursue an exemption from registration. The SEC has authority to provide conditional or unconditional exemptions from registration pursuant to Section 17A(b)(1) of the Exchange Act.⁴²

Transfer agents

Where a market participant provides services to the issuer of a virtual currency that is a security, it should consider the implications of the transfer agent definition. The definition of a transfer agent in Section 3(a)(25) of the Exchange Act⁴³ includes any person who engages on behalf of a securities issuer in:

- a* countersigning such securities upon issuance;
- b* monitoring the issuance of such securities with a view to preventing unauthorised issuance;
- c* registering the transfer of the issuer's securities of the issuer;
- d* exchanging or converting the securities; or
- e* transferring record ownership of the securities by bookkeeping entry without physical issuance of securities certificates.

In turn, Section 17A(c)(1) of the Exchange Act requires that, except as otherwise provided in the Exchange Act, it is unlawful for any transfer agent, unless registered, to use US instrumentalities of interstate commerce 'to perform the function of a transfer agent with respect to any security registered under Section 12 [of the Exchange Act] or which would be required to be registered except for the exemption from registration provided by subsections (g)(2)(B) or (g)(2)(G) of that section'.⁴⁴ Therefore, transfer agent registration is not required unless a person acts as a transfer agent in respect of such securities. The SEC also has authority pursuant to Section 17A(c)(1) of the Exchange Act⁴⁵ to provide conditional or unconditional exemptions from transfer agent registration.

40 'Clearing Agency Standards for Operation and Governance', 76 Fed. Reg. 14495 (Mar. 16, 2011), <https://www.gpo.gov/fdsys/pkg/FR-2011-03-16/pdf/2011-5182.pdf>.

41 15 U.S.C. § 78c(a)(23)(B) (2018).

42 *id.*, § 78q-1(b)(1).

43 *id.*, § 78c(a)(25).

44 *id.*, § 78q-1(c)(1).

45 *id.*

iii Commodities laws

The CFTC is the US federal regulatory agency that administers and enforces the CEA, having jurisdiction over derivatives, that is, futures contracts, options and swaps involving commodities.⁴⁶ CEA Section 1a(9) defines a commodity as '[enumerated agricultural products], and all other goods and articles [. . .] and all services, rights, and interests [. . .] in which contracts for future delivery are presently or in the future dealt in'.⁴⁷

Virtual currencies are not fiat currencies; they are not legal tender issued by a sovereign government. In 2017, the CFTC interpreted virtual currency to encompass any digital representation of value that functions as a medium of exchange, and any other digital unit of account used as a form of currency.⁴⁸ In December 2017, the CFTC permitted the trading of Bitcoin futures contracts and Bitcoin binary options on two CFTC-regulated futures exchanges, referred to as designated contract markets (DCMs).⁴⁹ Therefore, as of December 2017, Bitcoin satisfied the condition in the 'commodity' definition of being the underlying asset for a futures contract. Receptiveness to trading of Bitcoin futures on US DCMs has been mixed. For example, in the first quarter of 2019, CBOE Global Markets Inc announced that it would discontinue the trading of Bitcoin futures,⁵⁰ while in June 2019, the CFTC approved LedgerX's application to be a DCM for the trading of physically settled Bitcoin futures by retail investors.⁵¹

In 2014, the then-current CFTC Chair advised Congress that derivatives contracts based on virtual currencies fall within the CFTC's jurisdiction.⁵² Beginning in 2015, the CFTC commenced several administrative enforcement actions involving virtual currencies. In settling an enforcement case with Coinflip, Inc, an unregistered trading facility on which Bitcoin options were traded, the CFTC determined that Bitcoin and all virtual currencies are commodities within the definition of CEA Section 1a(9), that Bitcoin is not a fiat currency, that Bitcoin options are commodity options and therefore are CFTC-regulated swaps, and that the trading facility was therefore required to be registered with the CFTC as either a swap execution facility (SEF) or DCM.⁵³ The CFTC determined that all virtual currencies fell within the CEA definition of commodity, notwithstanding that no regulated futures contract based on any virtual currency was traded at that time.

In 2016, in another administrative enforcement proceeding, the CFTC entered into a settlement with Bitfinex, which operated an online platform for retail customers exchanging

46 7 U.S.C. § 1 et seq. (2018). The CFTC's regulations are at 17 C.F.R. § 1 et seq. (2018).

47 7 U.S.C. § 1a(9) (2018).

48 'Retail Commodity Transactions Involving Virtual Currency', 82 Fed. Reg. 60,335, 60,338 (Dec. 20, 2017) (Retail Transactions).

49 Commodity Futures Trading Comm'n, 'CFTC Statement on Self-Certification of Bitcoin Products by CME, CFE and Cantor Exchange', CFTC Release No. 7654-17 (Dec. 1, 2017), <https://www.cftc.gov/PressRoom/PressReleases/pr7654-17>; see also 'Bitcoin Futures Are Here: The Story So Far', Nasdaq (Dec. 11, 2017), <https://www.nasdaq.com/article/bitcoin-futures-are-here-the-story-so-far-cm889984>.

50 See Alexander Osipovich, 'Cboe Abandons Bitcoin Futures', Wall Street Journal (Mar. 18, 2019), <https://www.wsj.com/articles/cboe-abandons-bitcoin-futures-11552914001>.

51 Commodity Futures Trading Comm'n, 'CFTC Approves LedgerX LLC as a Designated Contract Market', CFTC Release No. 7945-19 (June 25, 2019), <https://www.cftc.gov/PressRoom/PressReleases/7945-19>.

52 Timothy Massad, 'Testimony of Chairman Timothy Massad before the U.S. Senate Committee on Agriculture, Nutrition and Forestry' (Dec. 10, 2014), <https://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-6>.

53 See *In the Matter of: Coinflip, Inc, d/b/a Derivabit, et al.*, CFTC No. 15-29 (Sept. 17, 2015).

and trading various virtual currencies, including Bitcoin, on a margined, leveraged or financed basis, without actually delivering the Bitcoin to the retail customers, but instead holding the Bitcoin in wallets that it owned and controlled, in violation of the CEA's retail commodity transactions provision that is intended to protect individual retail customers from abuse involving unregulated speculative commodities investments.⁵⁴ The CFTC again determined that virtual currencies are commodities, and that the transactions were illegal, off-exchange commodity futures contracts because they were transacted with retail investors and did not result in actual delivery. Retail investors are individuals who are not eligible contract participants (e.g., sophisticated investors, specified regulated entities and large entities). Retail commodity transactions are treated under the CEA as futures contracts and must be traded on regulated DCMs. The CFTC required Bitfinex to register with the CFTC as a futures commission merchant because it engaged in soliciting or accepting orders for retail commodity transactions and received funds from retail customers in connection with the transactions.

In 2017, the CFTC published a proposed interpretation on the meaning of the term actual delivery in the context of retail transactions in virtual currencies, in order to determine whether off-exchange transactions involving virtual currencies fall within the CEA's retail commodity transactions prohibition.⁵⁵ The CFTC advised that while the test for whether actual delivery has occurred would be determined by facts and circumstances, it will look to whether, no later than within 28 days, the retail customer is able to take possession and control of the entire quantity of the virtual currency purchased, regardless of whether the purchase was leveraged or financed, and use it freely in commerce without the seller or platform retaining any security interest in the virtual currency. The CFTC advised that a book-out or cash settlement, or where the virtual currency is retained in an omnibus wallet where the platform operator retains the private keys, will not constitute actual delivery. The CFTC recognised that a virtual currency trading platform may have relationships with depositories for its customers, but the platform (and any financing provider) may not retain an interest in the virtual currency deposited in the depository.

In March 2018, in the enforcement case *CFTC v. McDonnell and CabbageTech Corp (d/b/a Coin Drop Markets)*, a federal district court judge confirmed the CFTC's view that all virtual currencies are commodities under the CEA definition, and that spot transactions in virtual currencies are subject to the CFTC's anti-fraud and anti-manipulation enforcement authority.⁵⁶ Notwithstanding that only Bitcoin futures contracts are currently traded on CFTC-regulated DCMs, the court found that all virtual currencies are goods that fall within the CEA's definition of commodity, as excerpted above. The court also held that the CEA grants the CFTC enforcement authority over fraud or manipulation not only in derivatives markets, but also over the underlying virtual currencies spot markets pursuant to CFTC Rule 180.1, which prohibits employing a manipulative or fraudulent scheme not only in connection with derivatives transactions but 'in connection with [. . .] a contract of sale of any

54 *In the Matter of: BFXNA Inc d/b/a Bitfinex*, CFTC No. 16-19 (June 2, 2016).

55 Retail Transactions, footnote 48. In February 2018, the CFTC and the United Kingdom's Financial Conduct Authority signed an arrangement to collaborate and support innovative firms through each other's fintech initiatives. 'Cooperation Arrangement', US CFTC-UK FCA (Feb. 18, 2018), <https://www.cftc.gov/sites/default/files/idc/groups/public/@internationalaffairs/documents/file/cftc-fca-cooparrgt021918.pdf>.

56 *CFTC v. McDonnell and CabbageTech, Corp. d/b/a Coin Drop Markets*, No. 1:18-cv-00361-JBW-RLM, slip op. (E.D.N.Y. Mar. 6, 2018) (mem.); see also *CFTC v. My Big Coin Pay, Inc.*, No. CV 18-10077-RWZ (D. Mass. Sept. 26, 2018) (mem.).

commodity in interstate commerce'. The court also concluded that the CFTC's jurisdiction over virtual currencies is concurrent with the jurisdiction of other federal and state regulators and criminal prosecutors. In August 2018, following a non-jury trial, the case was decided in favour of the CFTC and the court issued a permanent injunction and assessed civil monetary penalties against the defendants.⁵⁷

With respect to virtual currency swap transactions, the CFTC's jurisdictional authority is not based on the underlying asset being a commodity. Therefore, even if a virtual currency is not a commodity, if the transaction is determined to be a swap, the CFTC would have regulatory authority over the swap transaction, which means that the CFTC's swap dealer, reporting, record-keeping and other swaps compliance rules would apply.

The CFTC has also advised that virtual tokens and virtual coin offerings may be commodities or derivatives contracts depending on the particular facts and circumstances.⁵⁸ All CFTC registrants must become members of the National Futures Association (NFA), which requires that its members who trade, broker or advise about virtual currency derivatives notify the NFA of this activity and make appropriate risk disclosures to their customers.⁵⁹

III BANKING AND MONEY TRANSMISSION

Below is an overview of the regulation of virtual currency activities by US federal prudential banking regulators (the Board of Governors of the Federal Reserve System (Fed), the Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC)) and the Consumer Financial Protection Bureau (CFPB), as well as the regulation of virtual currency activities by the US states, specifically as money transmission or a related money services business activity.⁶⁰ The US federal prudential banking regulators and the CFPB have not sought to actively regulate the virtual currencies and virtual currency activities of their supervised entities to date.⁶¹ The US states, on the other hand, have adopted a broad spectrum of approaches concerning the application of money transmission and related laws and regulations to virtual currency activities, including requiring in certain circumstances a specialised virtual currency licence or a more general money transmission licence (MTL).

57 *CFTC v. McDonnell and CabbageTech, Corp. d/b/a Coin Drop Markets*, No. 1:18-cv-00361-JBW-RLM (E.D.N.Y. Aug. 23, 2018), <https://www.cftc.gov/sites/default/files/2018-08/enfdropmarketsorder082318.pdf>.

58 LabCFTC, 'A CFTC Primer on Virtual Currencies', 14 (Oct. 17, 2017), https://www.cftc.gov/sites/default/files/idc/groups/public/documents/file/labctc_primercurrency100417.pdf. In May 2019, the CFTC published its enforcement manual, which is applicable to trading and dealing in all commodities (including virtual currencies) and which provides insight into the agency's approach to investigations and enforcement proceedings.

59 See Notice I-18-13, Nat'l Futures Assoc. (Aug. 9, 2018) (NFA Notice), <https://www.nfa.futures.org/news/newsNotice.asp?ArticleID=5036>.

60 This section does not address securities or commodities laws and regulations, tax laws or commercial law questions, such as the mechanism for taking a security interest in virtual currencies. The money services business registration requirements of FinCEN are discussed in Section IV.

61 The information in this section was accurate as at 30 June 2019. Regulation of virtual currencies on both the federal and state levels is rapidly evolving and subject to change.

i Federal banking regulators

While the CFTC, the SEC⁶² and FinCEN⁶³ have issued guidance or made public pronouncements that begin to define the scope of their jurisdiction concerning virtual currencies, the Fed, OCC, FDIC and CFPB have largely adopted a more limited ‘wait and see’ approach.

Fed

In a press conference in late 2017, the former Chair of the Fed, Janet Yellen, responded to a question regarding the Fed’s policy regarding Bitcoin as follows:

*It is a highly speculative asset, and the Fed doesn't really play any role – any regulatory role with respect to Bitcoin other than assuring that banking organisations that we do supervise are attentive, that they're appropriately managing any interactions they have with participants in that market and appropriately monitoring anti-money laundering Bank Secrecy Act, you know, responsibilities that they have.*⁶⁴

In short, Chair Yellen confirmed that the Fed does not have any direct role in regulating Bitcoin or, by implication, the class of other virtual currencies with similar features.

Nonetheless, the Fed continues to monitor the use and development of virtual currencies and the role of Fed-regulated financial institutions in virtual currency activities through the Digital Assets Working Group of the Financial Stability Oversight Council (FSOC), which includes the CFTC, the SEC and FinCEN.⁶⁵ In its 2018 Annual Report, FSOC stated ‘[d]igital assets do not presently appear to pose a threat to the stability of the financial system . . . the estimated market capitalization of digital assets is still relatively small . . . for context, [it] is less than 1 percent of the market capitalization of U.S. stocks’ and ‘[d]igital assets have limited use in the real economy of financial transactions’.⁶⁶ The report went on to note, however, that the value and use of virtual currencies could grow rapidly and federal agencies will continue to monitor risk to the banking system.⁶⁷ Public comments by current Fed governors, including Chairman Powell, are consistent with these positions.⁶⁸ As

62 See Section II.

63 See Section IV.

64 Janet Yellen, ‘Transcript of Chair Yellen’s Press Conference of December 13, 2017’, 12 (Dec. 13, 2017), <https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20171213.pdf>.

65 ‘Examining the Growing World of Virtual Currencies and the Oversight Conducted by the U.S. Securities and Exchange Commission and the U.S. Commodity Futures Trading Commission: Hearing Before the S. Comm. on Banking, Hous., and Urban Affairs’, 115th Cong. 11 (2018) (Testimony of CFTC Chairman J Christopher Giancarlo); Financial Stability Oversight Council Ann. Rep. 89 (2018) (FSOC Annual Report).

66 FSOC Annual Report, footnote 65.

67 id.

68 ‘Monetary Policy and the State of the Economy: Hearing Before the H. Comm. on Fin. Servs.’, 115th Cong. (Testimony of Jerome Powell); Randal Quarles, Vice Chair, Board of Governors of the Fed. Res. Sys., ‘Thoughts on Prudent Innovation in the Payment System, Remarks Before the 2017 Financial Stability and FinTech Conference’ (Nov. 30, 2017), <https://www.federalreserve.gov/newsevents/speech/quarles20171130a.htm>; Lael Brainard, Governor, Board of Governors of the Fed. Res. Sys.,

at June 2019, the Fed has not publicly taken a position on the permissibility of bank holding companies and financial holding companies to engage in various activities (either as principal or agent) related to virtual currencies.

OCC

Like the Fed, the OCC has published little guidance regarding the role of national banks in virtual currency ecosystems.⁶⁹ However, in 2018, the OCC announced it will make available a special-purpose national bank charter, generally known as a fintech charter, that may be owned by certain types of non-bank financial services companies.⁷⁰ A fintech charter permits a company to operate on a national basis under the OCC's supervision and thereby bypass multi-state licensing and supervision, and certain types of state regulation.⁷¹ These features have led to industry speculation whether the charter will be available to enable a more streamlined alternative for certain virtual currency activities than the multistate licensing approach described below.⁷² The OCC has stated that applicants and licensees will be held to the same standards as national banks, suggesting that even if the fintech charter is an avenue for certain virtual currency activities, only certain industry participants may be in a position to meet the applicable regulatory requirements.⁷³

The fintech charter proposal proved controversial shortly after it was initially proposed, and state regulators continue to oppose the charter, including through a pending legal challenge to the charter.⁷⁴ The initial industry reaction to the fintech charter has been tepid with no formal applications being submitted as at 15 May 2019.⁷⁵

'Cryptocurrencies, Digital Currencies, and Distributed Ledger Technologies: What Are We Learning, Remarks Before the Decoding Digital Currency Conference' (May 15, 2018), <https://www.federalreserve.gov/newsevents/speech/brainard20180515a.htm>.

69 See, e.g., Michelle Price, 'U.S. Regulator Plays Down Bitcoin Fear, Backs FinTech Charter', Reuters (Dec. 20, 2017), <https://www.reuters.com/article/us-usa-occ-bitcoin/u-s-regulator-plays-down-bitcoin-fears-backs-fintech-charter-idUSKBN1EE25C>.

70 Office of the Comptroller of the Currency, 'Policy Statement on Financial Technology Companies' Eligibility to Apply For National Bank Charters' (2018); Office of the Comptroller of the Currency, 'Comptroller's Licensing Manual Supplement: Considering Charter Applications From Financial Technology Companies' (2018).

71 id.

72 The OCC has not explicitly commented on what types of virtual currency activities, if any, may be conducted under the authority of a fintech charter. The OCC has stated that the charter is available to entities that facilitate payments electronically, and suggested that certain new or innovative activities may qualify as banking activities permitted by the charter; however, the OCC has expressly stated that entities will not qualify if they intend to accept deposits or engage primarily in fiduciary services.

73 Office of the Comptroller of the Currency, footnote 70. The standards applicable to national banks that apply to fintech charter licensees include those concerning capital and liquidity, profitability, corporate governance and management, risk management, community financial inclusion, financial-stress contingency planning, competition, treating customers fairly and regulatory compliance.

74 As at June 2019, there was a pending lawsuit in the United States District Court for the Southern District of New York brought by the New York Department of Financial Services against the OCC challenging its authority to issue a fintech charter. Unlike prior actions brought by the New York Department of Financial Services and the Conference of State Bank Supervisors, this action survived a motion to dismiss for a lack of ripeness, with some indication that the court was sympathetic to the position of the New York Department of Financial Services. *Vullo v. OCC et al.*, 2019 U.S. Dist. Lexis 77151 (S.D.N.Y. May 2, 2019).

75 Rachel Witkowski, 'Fintech Charter Delayed Following Court Ruling: Otting', American Banker (May 15, 2019), <https://www.americanbanker.com/news/fintech-charter-delayed-following-court-ruling-occs-otting>.

FDIC

Like the other prudential banking regulators, the FDIC is presently merely monitoring the development of virtual currencies and is likely to continue this approach. The FDIC has publicly stated that it is actively studying the potential effects of virtual currencies on the banking system and banks under its jurisdiction through FSOC's Digital Assets Working Group.⁷⁶

CFPB

In light of its consumer protection mandate, the CFPB's focus with respect to virtual currencies has been on ensuring that consumers are adequately informed of the risks of virtual currencies. In this regard, in 2014, the CFPB issued a public warning regarding the risks of transacting and investing in virtual currencies and began accepting consumer complaints regarding virtual currency matters, a potential first step towards regulation or enforcement.⁷⁷ However, in 2016, after taking public comments, the CFPB declined to bring virtual currencies within its regulation on prepaid products or to take a position concerning whether virtual currencies are otherwise subject to Regulation E.⁷⁸ Moreover, to date there have been no public CFPB enforcement actions regarding virtual currency activities.

ii State money transmission regulators

The states have adopted a broad spectrum of approaches concerning the application of money transmission laws and regulations to virtual currencies. These approaches include: promulgating an entirely separate regulatory regime for the oversight of entities engaged in virtual currency activities (e.g., New York's BitLicense); incorporating or exempting virtual currency activities from state MTL regimes by statutory amendment or regulatory fiat; and declining to adopt a position (e.g., the approach of the California Department of Business Oversight (CDBO)).⁷⁹ As these approaches continue to evolve, there is also a potential alternative approach on the horizon, the Uniform Law Commission's proposed Uniform Regulation of Virtual Currency Business Act (the Uniform Act),⁸⁰ which, like the New York BitLicense, is a licensing regime specifically designed for entities involved in virtual currency activities. Although the Uniform Act has only been introduced in the legislatures of a handful of states and has yet to be adopted in any state as at June 2019, it may serve as the basis for future legislative activity concerning virtual currency regulation. Similarly, the Conference

76 Fed. Deposit Ins. Corp. Ann. Rep. 27 (2018).

77 Press release, 'Consumer Fin. Protection Bureau, CFPB Warns Consumers About Bitcoin' (Aug. 11, 2014), <https://www.consumerfinance.gov/about-us/newsroom/cfpb-warns-consumers-about-bitcoin/>.

78 'Prepaid Accounts under the Electronic Fund Transfer Act (Regulation E) and the Truth in Lending Act (Regulation Z)', 79 Fed. Reg. 77101 (Dec. 23, 2014), 81 Fed. Reg. 83978 (Nov. 22, 2016).

79 The states also have generally expressed concern regarding consumer protection in virtual currency transactions, publishing bulletins warning consumers of the risks inherent in such transactions. See, e.g., Lorraine Mirabella, 'State Regulators Warn Consumers About Virtual Currency', *The Baltimore Sun* (Apr. 29, 2014), <http://www.baltimoresun.com/bal-consuming-state-regulators-warn-consumers-virtual-currency-20140429-story.html>; N.C. Office of the Comm'r of Banks, 'Consumer Alert: Virtual Currencies', https://www.nccob.gov/Public/docs/Financial%20Institutions/Money%20Transmitters/OCOB_Virtual_Currency_Alert.pdf.

80 Unif. Reg. of Virtual-Currency Bus. Act (Unif. Law Comm'n 2017) (Uniform Law), <https://www.uniformlaws.org/committees/community-home?CommunityKey=e104aaa8-c10f-45a7-a34a-0423c2106778>.

of State Bank Supervisors (CSBS) has published a model regulatory framework for states to consider.⁸¹ The following summarises a handful of representative approaches to regulation of virtual currency activities at the state level. However, there are numerous variations on the themes below, as well as significant pending legislative and regulatory activity that promise to make this a dynamic area for the foreseeable future.

New York BitLicense

New York, through rule-making by the New York Department of Financial Services (NYDFS), has been the most aggressive of the states in regulating virtual currencies. Under New York law, a licence referred to as a BitLicense is broadly required to engage in any virtual currency business activity.⁸² Given that New York is the epicentre of US financial markets and services, this requirement has led the NYDFS to be a leader in regulating, or seeking to regulate, a wide spectrum of virtual currency businesses operating in the United States. New York regulations define virtual currencies as ‘any type of digital unit that is used as a medium of exchange or a form of digitally stored value’ and includes both centralised and decentralised currencies.⁸³ Excluded from the definition of virtual currencies are: prepaid cards that are issued or redeemable in legal tender; digital units that are part of a customer affinity or rewards programme that cannot be converted into legal tender or a virtual currency; and digital units used within gaming platforms that have no real-world value or market outside the gaming platform, and cannot be converted into real-world value or a virtual currency.⁸⁴ Virtual currency business activity, the activity that gives rise to the licensing requirement, broadly entails any of the following:

- a* receiving a virtual currency for transmission or transmitting a virtual currency;
- b* storing, holding or maintaining custody or control of a virtual currency on behalf of others;
- c* buying and selling a virtual currency as a customer business;
- d* performing exchange services; and
- e* controlling, administering or issuing a virtual currency.⁸⁵

Virtual currency business activities do not include use of a virtual currency by merchants or consumers to purchase goods or services, investment by merchants and consumers or the development and issuance of software.⁸⁶

81 See Conference of State Bank Supervisors, ‘State Regulatory Requirements For Virtual Currency Activities CSBS Model Regulatory Framework’ (Sept. 15, 2015), <https://www.csbs.org/sites/default/files/2017-11/CSBS-Model-Regulatory-Framework%28September%2015%202015%29.pdf>. Several states also have published consumer advisories regarding the risks of transacting or investing in virtual currencies, generally using a model form promulgated jointly by the CSBS and the North American Securities Administrators Association. See, e.g., Md. Office of the Comm’r of Fin. Reg., Advisory Notice 14-01, ‘Virtual Currencies: Risks for Buying, Selling, Transacting, and Investing’ (Apr. 24, 2014), <http://www.dllr.state.md.us/finance/advisories/advisoryvirtual.shtml>.

82 N.Y. Comp. Codes R. & Regs. tit. 23, § 200.3 (2019).

83 *id.*, § 200.2(p).

84 *id.*, §§ 200.2(p), (j).

85 *id.*, § 200.2(q).

86 *id.*, §§ 200.2(q), 200.3(c).

In addition to the requirement to obtain a licence, licensees under the BitLicense regime are also required to meet certain substantive compliance requirements. Generally, licensees are required to:

- a* maintain a sufficient amount of capital as determined by the NYDFS;⁸⁷
- b* maintain sufficient anti-money laundering (AML), customer identification, cybersecurity, consumer complaint and anti-fraud programmes;⁸⁸
- c* provide certain disclosures and receipts in connection with transactions;⁸⁹
- d* file certain money laundering reports with the NYDFS if not otherwise filed with FinCEN;⁹⁰
- e* have a compliance officer and a chief information security officer;⁹¹
- f* maintain certain written policies and procedures;⁹²
- g* maintain a sufficient surety bond;⁹³ and
- h* meet certain record retention requirements.⁹⁴

Licensees that hold virtual currencies on behalf of others are also required to: hold such funds in trust with a qualified custodian that is approved by the NYDFS; hold virtual currencies of the same type and amount as what is owed to the beneficiaries; and not sell, lend or assign virtual currencies held on behalf of others except at the direction of the beneficiary.⁹⁵ Licensees are also subject to supervision of the NYDFS, which includes periodic examinations and the submission of financial and transactional information to the NYDFS.⁹⁶

Notwithstanding this extensive regulation, it should be noted that, depending on the nature of a licensee's activities, the NYDFS may require an entity that has received a BitLicense to also obtain a New York MTL. Moreover, as an alternative to the BitLicense, the NYDFS also has licensed a handful of trust companies to engage in certain virtual currency trading and custody activities. Although applicants for a trust company licence must meet a particularly high standard, there is an advantage to the trust company licence in that many (but not all) states do not require licences for trust companies that are chartered and supervised in another state.

Inclusive legislation

As an alternative to a new and separate regulatory regime, a number of other states have amended their MTL statutes broadly to include the receipt of virtual currencies for transmission or the issuance or the sale of virtual currencies as stored value.⁹⁷ Such amendments typically revise the statutory definitions of money or money transmission to

87 *id.*, § 200.8.

88 *id.*, §§ 200.15, 200.16, 200.20.

89 *id.*, § 200.19.

90 *id.*, § 200.15.

91 *id.*, §§ 200.7(b), 200.16(c).

92 *id.*, §§ 200.7, 200.15–200.17.

93 *id.*, § 200.9(a).

94 *id.*, § 200.12.

95 *id.*, §§ 200.7, 200.2(n).

96 *id.*, §§ 200.13, 200.14.

97 These states include, without limitation, Alabama, Connecticut, North Carolina, Oregon, Vermont and Washington. A 50-state survey was not conducted in the development of this section, and other states may also fall under this category or other categories presented in this section.

include the concept of virtual currencies, and add virtual currency as an additional defined term to the statute.⁹⁸ It is important to note that several, but not all, state MTL statutes exempt licensed broker-dealers to some degree,⁹⁹ and some states also recognise exceptions for agents of the payee¹⁰⁰ or payment processors.¹⁰¹ Some virtual currency businesses therefore may be able to take advantage of these and other exceptions on state-by-state or activity-by-activity bases, or both.

In regard to the various types of potential virtual currency activities and whether they are subject to regulation in these states, states generally do not cover end users of a virtual currency (e.g., merchants that accept a virtual currency in payment for goods or services, individuals who use a virtual currency to make such payments and investors who purchase a virtual currency for their own portfolios), but transmitting or maintaining control of virtual currencies for others typically is a covered activity under such regimes,¹⁰² which may be interpreted as covering both purchases and sales of virtual currencies on behalf of others.¹⁰³

Licensees under these state MTL regimes are also subject to certain compliance requirements. Based on the plain text of money transmitter statutes and regulations, these requirements are generally not quite as extensive as those required for a New York BitLicense, but state regulators typically have discretion to require additional controls as a condition of licensing. Common examples of the relevant statutory or regulatory requirements include the following:

- a* holding permissible investments in an amount equivalent to funds received from senders;
- b* maintaining a sufficient net worth, which is often at a statutorily specified amount rather than an amount that is specific to the licensee;
- c* maintaining a sufficient surety bond; and
- d* meeting certain record retention requirements.

In certain states, money transmitters are also required to maintain certain policies and procedures, provide a receipt with each transaction and provide certain disclosures. State money transmitter licensees are also subject to periodic examinations, and must submit financial and transactional information to the supervising agencies.

For licensees that engage in virtual currency activities, compliance with these requirements can pose challenges in states that have not made accommodations for the unique attributes of virtual currencies that decades-old MTL statutes were not designed to address. For example, if a licensee holds a virtual currency for a customer and the state regulator views that holding as an outstanding obligation of the licensee to the customer, state regulations

98 See, e.g., N.C. Gen. Stat. §§ 53-208.42(12)–(13), (20) (2018); Wash. Rev. Code §§ 19.230.010(18), (30) (2018).

99 See, e.g., Wash. Rev. Code § 19.230.020(10) (2018) (exempting securities broker-dealers ‘to the extent of its operation as such’).

100 See, e.g., Jorge L Perez, Banking Comm’r, Conn. Dep’t. of Banking, ‘No Action Position on Money Transmission licensure Requirement for Persons Acting as an Agent of a Payee’ (Oct. 24, 2017), https://portal.ct.gov/-/media/DOB/consumer_credit_nonhtml/102417MemoAgentofPayeepdf.pdf?la=en.

101 See, e.g., Wash. Rev. Code § 19.230.020(9) (2018).

102 See, e.g., N.C. Gen. Stat. § 53-208.42(13) (2018).

103 See, e.g., Deborah Bortner, Dir., Div. of Consumer Servs., Wash. Dep’t of Fin. Insts., ‘Uniform Money Services Act Interim Regulatory Guidance’ (Dec. 8, 2014), <https://dfi.wa.gov/documents/money-transmitters/virtual-currency-interim-guidance.pdf>.

will typically require, as indicated above, that the licensee hold certain eligible investments in an amount equal to the outstanding obligation. For traditional licensees, that typically means holding customer funds in insured bank accounts, US Treasury securities or the like. While most states have concluded that it is permissible to hold a 'like-kind' investment of a virtual currency when the licensee has an obligation to deliver a virtual currency to a customer,¹⁰⁴ that is not uniformly the case, leading to significant duplicate collateralisation requirements in Hawaii, for example.¹⁰⁵

Inclusive regulatory guidance

At least one state has issued regulatory guidance broadly classifying virtual currencies as money and subject to the state's money transmission laws.¹⁰⁶ Other states have taken a more nuanced position, covering some activities related to virtual currencies, but not others. For example, a line of guidance initially promulgated by Texas and adopted by several other states¹⁰⁷ distinguishes between decentralised and centralised virtual currencies. The guidance concludes that decentralised virtual currencies do not qualify as money under the respective state MTL statutes because they are not a currency as defined by the state law: that is, the coin or paper money of the United States or any other country.¹⁰⁸ As decentralised virtual currencies are not money, their transmission therefore is not money transmission.¹⁰⁹

However, the guidance further notes that transactions involving decentralised virtual currencies that also involve the exchange of legal tender could constitute money transmission if the transactions involved more than two parties.¹¹⁰ Under this line of guidance, the direct purchase and sale of virtual currencies as principal, the acceptance of virtual currencies for goods or services, the mere custody of virtual currencies and the exchange of one virtual currency for another virtual currency are not money transmission activities.¹¹¹ However, the sale of virtual currencies through an exchange for legal tender would be considered money transmission.¹¹²

104 See, e.g., Wash. Rev. Code § 19.230.200(1)(b) (2018).

105 See, e.g., Neeraj Agrawal, 'Hawaii's Issue With Bitcoin Businesses Has an Obvious and Easy Solution', Coincenter (Mar. 1, 2017), <https://coincenter.org/link/hawaii-s-issue-with-bitcoin-businesses-has-an-obvious-and-easy-solution>.

106 Such guidance was issued by the Hawaii Department of Commerce and Consumer Affairs. The guidance is relatively short, does not explain the reasoning of the Department and is very broad – it implies that even mining activities require a licence. Press release, Haw. Dep't. of Commerce and Consumer Affairs, 'State Warns Consumers on Potential Bitcoin Issues' (Feb. 26, 2014) (Hawaii Release). Legislation has been introduced in Hawaii to adopt a form of the Uniform Act.

107 See Charles G Cooper, Banking Comm'r, Tex. Dep't of Banking, Supervisory Memorandum – 1037, 'Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act', 3 (Apr. 3, 2014); Kan. Office of the State Bank Comm'r, Guidance Document MT 2014-01, 'Regulatory Treatment of Virtual Currencies Under the Kansas Money Transmitter Act' (June 6, 2014, revised Apr. 1, 2019); Colo. Dep't of Regulatory Agencies, Div. of Banking, 'Interim Regulatory Guidance Cryptocurrency and the Colorado Money Transmitters Act' (Sept. 20, 2018); Ill. Dep't of Fin. and Prof'l Reg., 'Digital Currency Regulation Guidance' (June 13, 2017); Greg Gonzales, Comm'r, Tenn. Dep't of Fin. Insts., 'Regulatory Treatment of Virtual Currencies under the Tennessee Money Transmitter Act' (Dec.16, 2015).

108 See Cooper, footnote 107.

109 *id.*, at 4.

110 *id.*

111 *id.*, at 3–4.

112 *id.*

As for centralised virtual currencies issued by a private party, the guidance generally declines to adopt a broad position given the numerous potential variations in structure.¹¹³ Instead, it generally defers making a judgement until the regulator is presented with the specific facts and circumstances at issue.¹¹⁴ Texas' recently updated guidance has clarified that one particular type of centralised virtual currency, stablecoin, does qualify as money and is regulated if its value is tied to fiat currency and it is redeemable for such currency.¹¹⁵ Other state regulators have informally indicated they would likely adopt a similar position.

Exemptive legislation

On the opposite end of the spectrum from New York is Wyoming, which has been aggressive in adopting legislation to make the state hospitable to virtual currency activities. Wyoming has broadly exempted from its money transmission laws the buying, selling, issuing or taking custody of virtual currency¹¹⁶ and has adopted other legislation to facilitate the use of virtual currencies.¹¹⁷ Another state, New Hampshire, also excludes virtual currency from its money transmission laws, but the relevant state regulator has interpreted the exemption narrowly.¹¹⁸

Exemptive regulatory guidance

A handful of other states have taken a broadly exemptive approach as a regulatory matter. For example, Pennsylvania has held through regulatory guidance that virtual currency exchanges do not need a money transmitter licence for facilitating transactions between buyers and sellers of virtual currencies based on the position that maintaining a clearing account for fiat currency at a depository institution does not require licencing because the exchange never directly handles fiat currency.¹¹⁹

No position

At present, not every state has taken a position, either through legislation or the actions of a regulator, regarding the application of MTL statutes to virtual currencies. Most notably, the CDBO has indicated that it is reserving judgement regarding the potential application of the California MTL statute to many virtual currency activities and the necessity of obtaining a licence. In response, some virtual currency companies are moving forward with virtual currency activities in California pending a determination by the CDBO that the California MTL statute applies to such activities and that a licence is required.

113 id., at 3.

114 id.

115 id., at 2, 5.

116 Wyo. Stat. Ann. §§ 40-22-103(xxii), 40-22-104(vi) (2019).

117 Wyoming law for purposes of the Uniform Commercial Code recognises digital assets generally as intangible personal property and virtual currency specifically. id., § 34-29-102.

118 N.H. Rev. Stat. Ann. § 399-G:3(VI-a) (2019); The New Hampshire Department of Banking has interpreted the exemption to not be available to parties that engage in the transfer of both fiat currency and virtual currency. N.H. Dep't. of Banking, "Cryptocurrency' Transmitters No Longer Supervised' (Aug. 1, 2017).

119 Penn. Dep't of Banking, 'Money Transmitter Act Guidance for Virtual Currency Businesses' (Jan. 23, 2019).

Uniform Regulation of Virtual-Currency Business Act

As reflected above, states have adopted a broad range of regulatory approaches. As virtual currencies mature and gain wider acceptance, more states may move to adopt a separate regulatory regime for virtual currencies or otherwise update their already enacted regulatory regimes. Indeed, legislation to that effect has been introduced in a number of states. During such a process, states may look to the Uniform Act referenced above for guidance.¹²⁰

The substance of the Uniform Act is heavily influenced by New York's BitLicense licensing regime, state money transmitter licensing regimes and the CSBS Model Regulatory Framework. Under the Uniform Act, a licence is required to 'engage in virtual-currency business activity'.¹²¹ The Uniform Act incorporates the concept of licensing reciprocity between states, so a separate licence may not be required for every state if the proposal is adopted as drafted.¹²² The Uniform Act generally defines a virtual currency as a digital unit used as a medium of exchange or stored value, and includes both centralised and decentralised currencies.¹²³ Similar to the BitLicense regulation, the definition also excludes a customer affinity or rewards programme that cannot be converted into legal tender or a virtual currency, and digital units used within gaming platforms that have no real-world value and cannot be converted into real-world value or a virtual currency.¹²⁴ Unlike the BitLicense regulation, but similar to other states that have amended their money transmission statutes, the Uniform Act does not explicitly exclude prepaid cards that are issued or redeemable in legal tender.

The definition of virtual currency business activity – the activity that gives rise to the licensing requirement – includes 'exchanging, transferring, or storing virtual currency or engaging in virtual currency administration'.¹²⁵ The definition also explicitly includes issuing, or holding on behalf of others, electronic certificates representing an interest in precious metals.¹²⁶ As with the BitLicense regulation and several amended MTL statutes, the Uniform Act also excludes from the definition of virtual currency business activity direct purchases of goods and services using a virtual currency, the direct purchase of a virtual currency as an investment and persons whose activities are limited to the development or issuance of software.¹²⁷ The Uniform Act also provides a number of additional exceptions. Among the exceptions, several worth highlighting are those for:

- a* registered broker-dealers or other securities and commodities intermediaries under the Uniform Commercial Code that do not engage in the ordinary course of business in virtual currency business activity in addition to maintaining securities accounts or commodities accounts;
- b* a licensed money transmitter;

120 The Uniform Law Commission has also promulgated the Uniform Supplemental Commercial Law for the Uniform Regulation of Virtual-Currency Business Act to provide commercial law rules under the Uniform Commercial Code for owing, transacting and holding virtual currencies. Unif. Supplemental Com. Law for the Unif. Reg. of Virtual-Currency Bus. Act (Unif. Law Comm'n 2018), <https://www.uniformlaws.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=de52d1fe-1f70-a568-9552-d354ade157ca&forceDialog=0>.

121 Uniform Law, footnote 80.

122 *id.*, §§ 201, 203.

123 *id.*, § 102(23).

124 *id.*

125 *id.*, § 102(24).

126 *id.*

127 *id.*, § 103.

- c* a payment processor that facilitates clearing and settlement between exempt entities;
- d* entities whose activity in the jurisdiction is associated with annual transactions that have a value of US\$5,000 or less;
- e* a virtual currency control-services vendor; and
- f* an entity that does not receive compensation for providing virtual currency products or services.¹²⁸

As with state licences generally, the Uniform Act also imposes certain substantive compliance requirements, including:

- a* maintaining a sufficient net worth and reserves as is determined necessary by the relevant regulator;¹²⁹
- b* maintaining sufficient AML, customer identification, cybersecurity, complaint programmes and anti-fraud programmes;¹³⁰
- c* providing certain disclosures and receipts in connection with transactions;¹³¹
- d* maintaining certain written policies and procedures;¹³²
- e* maintaining a sufficient surety bond;¹³³ and
- f* meeting certain record retention requirements.¹³⁴

Licensees that hold virtual currencies on behalf of others are also required to hold virtual currencies of the same type and amount as what is owed to the beneficiary.¹³⁵

IV ANTI-MONEY LAUNDERING

The Bank Secrecy Act (BSA)¹³⁶ is the primary federal statute that imposes AML obligations on institutions in the financial sector. FinCEN, a bureau of the US Department of the Treasury, issues and enforces AML regulations promulgated under BSA authority, generally in conjunction with other federal agencies with direct supervisory authority over impacted institutions, such as banks and broker-dealers. The BSA and its implementing regulations (BSA Regulations)¹³⁷ require that certain enumerated financial institutions that are not otherwise federally regulated must register with FinCEN, maintain a risk-based AML programme and collect, retain and share information with FinCEN.

i FinCEN guidance: a functional approach

The BSA Regulations impose AML obligations on various financial institutions, including traditional financial entities such as banks, mutual funds, brokers and dealers in securities, futures commission merchants, introducing brokers in commodities as well as certain

128 *id.*

129 *id.*, § 204.

130 *id.*, §§ 601, 602.

131 *id.*, § 501.

132 *id.*, § 601.

133 *id.*, § 204.

134 *id.*, § 302.

135 *id.*, § 502.

136 31 U.S.C. §§ 5311–5332 (2018). Money laundering itself is also defined in the US Criminal Code. See, e.g., 18 U.S.C. §§ 1956, 1957 (2018).

137 31 C.F.R. Ch. X (2018).

non-traditional financial entities, including money services businesses (MSBs).¹³⁸ Under the BSA Regulations, persons or entities ‘wherever located doing business, whether or not on a regular basis or as an organised or licensed business concern, wholly or in substantial part within the [United States]’ conducting certain activities are considered MSBs.¹³⁹ MSBs include, among other things, dealers in foreign exchange, providers and sellers of prepaid access and money transmitters.¹⁴⁰ A money transmitter is any person or entity that provides money transmission services or is engaged in the transfer of funds.¹⁴¹ The terms money transmitter and money transmission services have formed the basis for FinCEN’s regulation of entities engaged in certain virtual currency activities.

In 2011, FinCEN finalised a rule¹⁴² that expanded the definition of money transmission services to encompass ‘the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means’.¹⁴³ By covering other value that substitutes for currency, FinCEN thus laid the foundation for assessing whether a particular virtual currency business constitutes acting as a money transmitter.

FinCEN then issued guidance that established key definitions and analytical principles that FinCEN uses to assess virtual currency activities under the BSA (2013 Guidance).¹⁴⁴ The 2013 Guidance defines virtual currency as ‘a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency’, distinguishing real currency from virtual currency on the basis that the latter does not have legal tender status in any jurisdiction.¹⁴⁵ The 2013 Guidance is limited to activities involving convertible virtual currencies (CVCs), defined as a virtual currency that ‘has either an equivalent value in real currency, or acts as a substitute for real currency’.¹⁴⁶ The 2013 Guidance does not include any reference to whether CVCs must be convertible to real currency or some other form of value; nor does it address whether convertibility must be authorised by the virtual currency system itself, or whether a mere market for trade or exchange is sufficient.

The 2013 Guidance defines three participants in generic virtual currency arrangements: a user is a person that obtains virtual currency to purchase goods or services; an exchanger is a person engaged as a business in the exchange of virtual currency for real currency, funds or other virtual currency; and an administrator is a person engaged as a business in issuing (putting into circulation) virtual currency, and who has the authority to redeem (to withdraw

138 *id.*, § 1010.100(t).

139 *id.*, § 1010.100(ff).

140 *id.*, §§ 1010.100(ff)(1), (4)–(5).

141 *id.*, § 1010.100(ff)(5).

142 ‘Bank Secrecy Act Regulations; Definitions and Other Regulations Relating to Money Services Businesses’, 76 Fed. Reg. 43585 (July 21, 2011).

143 31 C.F.R. § 1010.100(ff)(5)(i)(A) (2018).

144 Fin. Crimes Enf’t Network, US Dep’t of the Treasury, FIN-2013-G001, ‘Application of FinCEN’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies’ (Mar. 18, 2013).

145 *id.*, The BSA Regulations define real currency as coin and paper money of any country that is also designated as legal tender, circulates and is customarily used and accepted as a medium of exchange in the country of issuance. 31 C.F.R. § 1010.100(m) (2018).

146 FinCEN defines prepaid access as ‘access to funds or the value of funds that have been paid in advance and can be retrieved or transferred at some point in the future through an electronic device or vehicle, such as a card, code, electronic serial number, mobile identification number, or personal identification number’. 31 C.F.R. § 1010.100(ww) (2018). The 2013 Guidance distinguishes CVCs from prepaid access on the basis that prepaid access is limited to value denominated in real currency.

from circulation) such virtual currency.¹⁴⁷ An exchanger or administrator that accepts and transmits a CVC, or buys or sells a CVC for any reason, is a money transmitter subject to any applicable limitations or exceptions.¹⁴⁸ However, merely acting as a user does not fit within the definition of money transmission, and therefore users are not MSBs subject to AML obligations. The 2013 Guidance addresses both centralised CVCs and decentralised¹⁴⁹ CVCs such as Bitcoin.

FinCEN subsequently issued several interpretations addressing the application of the 2013 Guidance under specific fact patterns, but issued a comprehensive release in May 2019, similarly limited to CVCs,¹⁵⁰ that consolidated and expanded upon those interpretations (the 2019 Guidance).¹⁵¹ Although FinCEN asserts that the 2019 Guidance does not create any new regulatory requirements or expectations, its discussion of business models previously unaddressed by FinCEN may, in effect, establish new ground rules for certain CVC participants.

Defining the scope of user, exchanger and administrator

CVC creators: mining and investment

The 2019 Guidance provides that, if a person mines CVC and uses it solely for purchasing goods and services on its own behalf, then that person is not an MSB under the BSA Regulations unless and until the person mines CVC for use in money transmission, reaffirming prior guidance.¹⁵² Moreover, even where persons combine computer processing resources into ‘mining pools’ and the leader of such a group receives the earned CVC and transfers it to other group members, this alone is not money transmission under the BSA Regulations because such transfers are integral to the provision of services. FinCEN has

147 A person or entity may act in more than one capacity in a particular arrangement or transaction.

148 The BSA Regulations identify six circumstances under which a person is not a money transmitter despite accepting and transmitting currency, funds or value that substitutes for currency. 31 C.F.R. §§ 1010.100(ff) (5)(ii)(A)–(F) (2018). These carve-outs include: a person who merely provides the delivery, communication or network instruments used for transmission; a payment processor who facilitates payment for goods or services by agreement with the creditor or seller; and accepting or transmitting funds integral to the sale of goods or services by the person accepting or transmitting the funds. See *id.*, §§ 1010.100(ff)(5)(ii)(A)–(B), (F).

149 These are CVCs that have no central repository and no single administrator, and may be obtained by a person’s own computing or manufacturing effort.

150 The 2019 Guidance also does not address the contours of what is convertible for these purposes, but does state the definition covers value originally created for another purpose – including assets other regulatory frameworks classify as commodities, securities or futures contracts – that is repurposed as a currency substitute.

151 Fin. Crimes Enf’t Network, US Dep’t of the Treasury, FIN-2019-G001, ‘Application of FinCEN’s Regulations to Certain Business Models Involving Convertible Virtual Currencies’ (May 9, 2019). On the same day FinCEN also released an advisory to aid financial institutions in identifying and reporting suspicious activity by bad actors exploiting CVCs for illicit purposes, which provided examples of unregistered CVC entities used to further such activities, red flags of illicit conduct using CVCs and recommendations on information to include when filing required reports involving CVCs. See Fin. Crimes Enf’t Network, US Dep’t of the Treasury, FIN-2019-A003, ‘Advisory on Illicit Activity Involving Convertible Virtual Currency’ (May 9, 2019).

152 See Jamal El-Hindi, Assoc. Dir., Policy Div., Fin. Crimes Enf’t Network, US Dep’t of the Treasury, FIN-2014-R001, ‘Application of FinCEN’s Regulations to Virtual Currency Mining Operations’ (Jan. 30, 2014).

similarly found that investors in virtual currencies for their own benefit, and not for the benefit or at the behest of others, are users of a virtual currency and therefore are not money transmitters.¹⁵³ Thus, FinCEN does not look to the label applied to a particular process of creating or obtaining a virtual currency, but rather to the function for which the person uses the CVC, and for whose benefit.

CVC trading platforms, decentralised exchanges and centralised repositories

CVC trading platforms enable CVC buyers and sellers to find one another and sometimes also function as an intermediary to facilitate trades. According to the 2019 Guidance, CVC trading platforms that merely provide a forum to post bids and offers are not money transmitters under the BSA Regulations if the parties themselves settle any matched transactions via an outside venue or service.¹⁵⁴ However, if a trading platform purchases the CVC from the seller and sells it to the buyer, the trading platform becomes an exchanger and is thereby subject to the BSA Regulation requirements as a money transmitter. This is the case even if an entity only effects transmissions contingent upon the occurrence of predetermined conditions or the buying and selling customers are never identified to one another.¹⁵⁵ Furthermore, an exchanger will be subject to the same AML obligations under the BSA Regulations regardless of whether it acts as a broker attempting to match two (mostly) simultaneous and offsetting transactions involving the acceptance of one type of currency and the transmission of another, or as a dealer transacting from its own reserve in either CVC or real currency.¹⁵⁶

More broadly, in connection with CVCs for which there is a centralised repository, the 2013 Guidance concludes that the administrator of a centralised repository of CVCs is a money transmitter to the extent it allows transfers of value between persons or from one location to another, regardless of whether the transferred value is a real currency or CVC; and an exchanger that uses its access to virtual currency services provided by the administrator to accept and transmit CVCs on behalf of others also is a money transmitter.

Additional business models

P2P exchangers, CVC kiosks and decentralised applications

Peer-to-peer (P2P) exchangers that are engaged in the business of buying and selling CVCs by facilitating transfers of CVC for currency, other CVCs or other types of value must comply with BSA Regulations as money transmitters, except for a natural person engaging in such activity who does so on an infrequent basis and not for profit or gain.¹⁵⁷ Similarly, the

153 See Jamal El-Hindi, Assoc. Dir., Policy Div., Fin. Crimes Enf't Network, US Dep't of the Treasury, FIN-2014-R002, 'Application of FinCEN's Regulations to Virtual Currency Software Development and Certain Investment Activity' (Jan. 30, 2014). The same ruling indicated that mere development and distribution of software is not money transmission for this purpose.

154 Such platforms fit the BSA Regulation exemption from money transmitter status for merely providing the delivery, communication or network instruments used for transmission. 31 C.F.R. § 1010.100(ff)(5)(ii)(A) (2018).

155 See Jamal El-Hindi, Assoc. Dir., Policy Div., Fin. Crimes Enf't Network, US Dep't of the Treasury, FIN-2014-R011, 'Request for Administrative Ruling on the Application of FinCEN's Regulations to a Virtual Currency Trading Platform' (Oct. 27, 2014).

156 See Jamal El-Hindi, Assoc. Dir., Policy Div., Fin. Crimes Enf't Network, US Dep't of the Treasury, FIN-2014-R012, 'Request for Administrative Ruling on the Application of FinCEN's Regulations to a Virtual Currency Payment System' (Oct. 27, 2014).

157 31 C.F.R. § 1010.100(ff)(8) (2018).

owner-operator of a CVC kiosk (i.e., electronic terminal) that enables the exchange of CVC for currency, other CVCs or other types of value would be treated as a money transmitter subject to the BSA Regulations.

The 2019 Guidance addresses for the first time publicly FinCEN's position regarding decentralised applications (DApps), which are software programmes operating on a P2P network of computers running blockchain platforms and designed so that they are not controlled by a central administrator. The 2019 Guidance states that when DApps perform money transmission, the definition of money transmitter may apply to the DApp itself or its owners-operators, or both. The 2019 Guidance does not address who may be considered an owner or operator of a DApp or the implications of a piece of software running on a decentralised network being a money transmitter for purposes of the BSA Regulations.

Payment processing services involving CVC transmission

Financial intermediaries that enable traditional merchants to accept CVC from customers in exchange for goods and services are also money transmitters under the 2019 Guidance. CVC payment processors generally are unable to meet the conditions for the payment processor exemption in the BSA Regulations because they do not operate through clearance and settlement systems that admit only BSA-regulated financial institutions.¹⁵⁸

Internet casinos

The 2019 Guidance provides that any entity engaged in the business of gambling not otherwise covered by the BSA Regulation definition of casino, gambling casino or card club¹⁵⁹ – which includes any virtual platform created for betting on the possible outcome of events such as predictive markets, information markets, decision markets, idea futures or event derivatives – that accepts and transmits value denominated in CVC may still be regulated as a money transmitter under the BSA.

CVC wallets

Interfaces for intermediaries in the business of storing and transferring CVCs vary based on the technology involved, including mobile wallets, software wallets and hardware wallets. FinCEN considers wallets with user funds controlled by third parties to be 'hosted wallets' and wallets with user-controlled funds to be 'unhosted wallets'. However, FinCEN's regulatory treatment of these intermediaries under the 2019 Guidance is not technology-specific, but depends on four criteria: (1) who owns the value; (2) where the value is stored; (3) whether the owner interacts directly with the payment system where the CVC runs; and (4) whether the person acting as intermediary has total independent control over the value. FinCEN does not explain how these factors would be balanced in all situations, but does describe certain providers of hosted wallets that would be treated as MSBs and specifies that a person purchasing goods or services on their own behalf via an unhosted wallet is not a money transmitter.

¹⁵⁸ See *id.*, § 1010.100(ff)(5)(ii)(B); El-Hindi, footnote 156.

¹⁵⁹ 31 C.F.R. §§ 1010.100(t)(5)-(6) (2018). Casinos have their own AML obligations under the BSA Regulations. When a person falls under FinCEN's definitions for both casino and MSB, the regulatory obligations of a casino generally satisfy the obligations of an MSB, with the exception of registration.

Fundraising for development of other projects – ICOs¹⁶⁰

The 2019 Guidance specifically addresses two business models involving ICOs. The first involves ICOs whereby a preferential sale of CVC is made to a distinct set of preferred buyers (i.e., investors). The seller of the CVC is a money transmitter under the BSA Regulations because at the time of the initial offering the seller is the only person authorised to issue and redeem the new units of CVC and therefore would be considered an administrator of the CVC.¹⁶¹ The second business model involves ICOs whereby funds are raised through the issuance of a digital token as proof of an equity or debt investment, where investors may subsequently: (1) receive new CVC in exchange for the token; (2) exchange the token for a DApp coin, which is a digital token that unlocks the use of DApps that provide various services; (3) use the original token itself as a new CVC or DApp coin; or (4) receive some other type of return on the original equity or debt investment. In this model, depending on the circumstances, participants may be exempt from MSB status under an exemption available for other types of regulated entities (but not from BSA Regulations otherwise applicable to the regulated entity) or for the acceptance and transmission of value that is integral to the sale of goods or services different from money transmission.¹⁶² In any event, the resale of the initial token generally would not create any BSA Regulations obligations for the initial investor.

Anonymity-enhanced CVC transactions

Finally, the 2019 Guidance addresses transactions that are denominated in either (1) regular types of CVC but are structured to conceal information otherwise generally available through the CVC's native distributed public ledger or (2) types of CVC specifically engineered to prevent their tracing through distributed public ledgers (also called private coins). Operating in anonymity-enhanced CVCs is subject to the same regulatory treatment as operating in other CVCs, and may complicate compliance obligations related to communication of information in connection with certain fund transfers. Moreover, an anonymising services provider that accepts CVCs and retransmits them in a manner designed to prevent others from tracing the transmission back to its source would itself be considered a regulated money transmitter under the BSA Regulations. However, a person that merely provides anonymising software without more is not a money transmitter under the BSA Regulations.

160 The Department of the Treasury previously confirmed in a letter to Senator Ron Wyden, then the ranking member on the Senate Finance Committee, that the 2013 Guidance was intended to sweep broadly to have CVCs include ICO coins and tokens. Therefore, 'a developer that sells . . . ICO coins or tokens, in exchange for another type of value that substitutes for currency is a money transmitter and must comply with' applicable AML obligations while 'an exchange that sells ICO coins or tokens, or exchanges them for other virtual currency, fiat currency, or other value that substitutes for currency, would typically also be a money transmitter'. Letter from Drew Maloney, Assistant Sec'y for Legislative Affairs, Dep't of the Treasury to Senator Ron Wyden (Feb. 13, 2018), <https://coincenter.org/files/2018-03/fincen-ico-letter-marc-h-2018-coin-center.pdf>.

161 Similarly, the 2019 Guidance specifies that any 'transaction where a person accepts currency, funds, or value that substitutes for currency in exchange for a new CVC at a preferential rate for a group of initial purchasers, before making the CVC available to the rest of the public, is simply engaging in money transmission, regardless of any specific label (such as 'early investors') applied to the initial purchasers'.

162 See 31 C.F.R. §§ 1010.100(ff)(8), (5)(ii)(F) (2018).

ii FinCEN enforcement activity

FinCEN has also actively pursued criminal and civil enforcement matters against virtual currency businesses and individuals. Virtual currency exchanger Ripple Labs Inc and its wholly owned subsidiary XRP II, LLC (Ripple) concurrently entered into a consent agreement with FinCEN and a settlement with the US Attorney's Office in the Northern District of California for the failure to register as an MSB and violating numerous AML-related BSA Regulation requirements.¹⁶³ Ripple agreed to pay US\$700,000 and to take remedial actions, including to only conduct such exchanger activities through a registered MSB and to implement an effective, compliant AML programme. FinCEN also assessed a US\$110,003,314 civil penalty against Canton Business Corporation (BTC-e) along with a 21-count criminal indictment under 18 USC Sections 1956, 1957 and 1960 for wilful violations of the BSA AML requirements, including failure to register as an MSB and maintain an effective AML compliance programme as well as criminal money laundering charges. This was the first such action against a foreign-located, internet-based virtual currency business.¹⁶⁴ The Ripple and BTC-e examples are representative of numerous additional civil and criminal enforcement actions stemming from failures to comply with the BSA Regulations AML requirements.

Additionally, in April 2019 FinCEN brought its first enforcement action against an individual P2P CVC exchanger, assessing a civil monetary penalty of \$35,350 for Eric Powers' wilful failure to comply with any of the BSA Regulations applicable to money transmitters including developing, implementing and maintaining an AML programme, registering as an MSB and filing required transaction reports.¹⁶⁵ Powers was also immediately and permanently prohibited from ever providing money transmission services, engaging in any activity that would make him an MSB under the BSA Regulations and participating in any BSA-defined 'financial institution' that does any business in the United States.

iii AML compliance programme requirements

When a virtual currency business acts as an MSB, it must register with FinCEN and implement and maintain an effective written, risk-based AML programme that is reasonably designed to prevent the MSB from being used to facilitate money laundering and the financing of terrorist activities.¹⁶⁶ At a minimum such a programme must:

- a establish policies, procedures and internal controls to verify customer identification, file reports, create and retain records and respond to law enforcement requests;
- b integrate AML compliance procedures with automated data processing systems to the extent applicable;
- c maintain a list of agents;

163 News release, Fin. Crimes Enf't Network, 'FinCEN Fines Ripple Labs Inc. in First Civil Enforcement Action Against a Virtual Currency Exchanger' (May 5, 2015), <https://www.fincen.gov/sites/default/files/2016-08/20150505.pdf>.

164 See news release, Fin. Crimes Enf't Network, 'FinCEN Fines BTC-e Virtual Currency Exchange \$110 Million for Facilitating Ransomware, Dark Net Drug Sales' (July 26, 2017), <https://www.fincen.gov/sites/default/files/2017-07/BTC-e%20July%2026%20Press%20Release%20FINAL1.pdf>; *United States v. BTC-e aka Canton Business Corporation and Alexander Vinnik*, CR 16-00227 SI (N.D. Cal. Jan. 17, 2017). One of BTC-e's founders was also arrested, indicted and assessed a US\$12 million personal penalty.

165 News release, Fin. Crimes Enf't Network, 'FinCEN Penalizes Peer-to-Peer Virtual Currency Exchanger for Violations of Anti-Money Laundering Laws' (Apr. 18, 2019), <https://www.fincen.gov/news/news-releases/fincen-penalizes-peer-peer-virtual-currency-exchanger-violations-anti-money>.

166 See 31 U.S.C. §§ 5318(a)(2), (h) (2018); 31 C.F.R. § 1022.210 (2018).

- d* designate an AML programme compliance officer;
- e* provide appropriate AML education and training for relevant personnel; and
- f* provide for independent periodic review and monitoring to ensure programme adequacy.

Finally, MSBs also have a variety of record-keeping and reporting obligations in connection with their AML activities, including the obligation to file certain reports of suspicious activity.¹⁶⁷

iv Incorporation of the BSA AML requirements into state law

In addition to federal requirements under the BSA, all US jurisdictions (with the exception of Montana) also regulate money transmitters in some capacity through licensure and other requirements. As explained in Section III, each jurisdiction's money transmitter laws differ in terms of which activities require a licence and what is required to obtain a licence. Accordingly, whether FinCEN requires a virtual currency business to be registered federally as an MSB does not necessarily mean a state will agree with the classification under its laws, which generally have consumer protection goals as well as AML goals.

Many jurisdictions expressly incorporate compliance with the AML requirements of the BSA and BSA Regulations into their own money transmission statutes and regulations, including, for example, New York and Delaware.¹⁶⁸ Moreover, some jurisdictions impose AML obligations in addition to the federal requirements.¹⁶⁹ Consequently, virtual currency businesses may be subject to enforcement of federal AML compliance from state regulators, and may also have to comply with additional AML requirements depending on whether their activities necessitate a licence.

v Office of Foreign Assets Control

OFAC implements certain statutes, regulations and executive orders related to trade and economic sanctions that have been imposed on targeted foreign countries and regimes, terrorists, international narcotics traffickers, those engaged in activities related to the proliferation of weapons of mass destruction and other threats to the national security, foreign policy or economy of the United States. Those sanctions may prohibit certain types of transactions, or may require the blocking and freezing of assets associated with the targets of the sanctions regime, and are enforced with significant federal criminal sanctions. Any entity engaged in virtual currency activities in the United States must comply with the applicable OFAC regimes, and therefore must take care to assess whether its customers or counterparties are subject to relevant sanctions.

OFAC has pursued virtual currency-specific sanctions actions, including against two Iran-based individuals that helped exchange Bitcoin ransom payments into Iranian Rial as P2P exchangers on behalf of Iranian malicious cyber actors.¹⁷⁰ This marked the first instance

167 Other regulated financial institutions also have similar, but somewhat more extensive, AML obligations, including, for example, a more specific obligation to develop a customer identification programme. See, e.g., 31 C.F.R. § 1020.220 (2018).

168 See, e.g., N.Y. Fin. Serv. Law § 417.2 (Consol. 2018); 5 Del. Admin. Code § 2301-1.1 (2018).

169 See, e.g., Arizona Rev. Stat. Ann. § 6-1241 (2018).

170 News release, US Dep't of the Treasury, 'Treasury Designates Iran-Based Financial Facilitators of Malicious Cyber Activity and for the First Time Identifies Associated Digital Currency Addresses' (Nov. 28, 2018),

of OFAC specifically identifying CVC addresses associated with sanctioned individuals. Additionally, OFAC has issued FAQs stating that all US persons are prohibited from engaging in transactions related to, providing financing for and otherwise dealing in any ‘digital currency, digital coin, or digital token’ that was issued by, for or on behalf of the government of Venezuela on or after 9 January 2018.¹⁷¹

V REGULATION OF MINERS

Mining of virtual currencies is generally lawful under US federal and state law. However, concerns about energy consumption and environmental impact have caused at least one local government to issue temporary bans on virtual currency mining.¹⁷² There is no US regulatory regime that is specific to virtual currency mining; that is, virtual currency miners are not at this time regulated in the US as virtual currency miners. FinCEN has indicated that to the extent a user mines Bitcoin and uses the Bitcoin for its own purposes (i.e., not for the benefit of a third party), that user is not an MSB because the mining activity involves neither acceptance nor transmission of Bitcoin.¹⁷³ To the extent that the virtual currency being mined is a security or a commodity, the mining of the virtual currency may implicate other aspects of US federal law, including broker-dealer, investment adviser, commodity pool operator (CPO) or commodity trading adviser (CTA) registration.

US federal taxation of virtual currency mining may also prove complex and unclear. For example, miners may be required to include the fair market value of a mined currency in their gross income, and to the extent that an individual miner engages in virtual currency mining as part of a trade or business, the individual taxpayer may be required to pay self-employment tax on his or her net earnings from mining.

The treatment of virtual currency mining at the state and local levels varies. For example, Hawaii has issued guidance classifying virtual currencies as money, which subjects virtual currencies to the state’s laws on money transmission.¹⁷⁴ The guidance is relatively short, however, and does not explain the reasoning for this treatment. It is also quite broad, and appears to imply that mining activity requires a licence.¹⁷⁵ Montana is the only state to not have enacted any form of money transmission statute. While Montana has no laws or regulations specific to blockchain or virtual currencies, it is the first state to take a financial stake in a Bitcoin mining operation.¹⁷⁶

<https://home.treasury.gov/news/press-releases/sm556>.

171 See US Dep’t of the Treasury, ‘OFAC FAQs’, No. 566 (Mar. 19, 2018), https://www.treasury.gov/resource-center/faqs/Sanctions/Pages/faq_other.aspx#venezuela; The White House, Exec. Order No. 13827, ‘Taking Additional Steps to Address the Situation in Venezuela’, 83 Fed. Reg. 12469–70 (Mar. 19, 2018).

172 Plattsburgh, NY, City Code Ch. 270, Art. V, § 270-28-J (2018).

173 El-Hindi, footnote 152.

174 Hawaii Release, footnote 106.

175 *id.*

176 Press release, Office of Governor Steven Bullock, ‘Governor Bullock Announces \$1.1 Million to Help Main Street Businesses Create Jobs, Train Employees and Plan for Growth’, <http://governor.mt.gov/Newsroom/governor-bullock-announces-11-million-to-help-main-street-businesses-create-jobs-train-employees-and-plan-for-growth> (last visited July 5, 2019).

VI REGULATION OF ISSUERS AND SPONSORS

Issuers and sponsors of virtual currency-related investment funds (both public and private) and regulators continue to be challenged with applying an existing body of law and regulation to new technology and a new and evolving class of assets. Public interest in virtual currencies and digital tokens has prompted the formation of hundreds of virtual currency-related private investment funds,¹⁷⁷ and several public fund sponsors have filed registration statements with the SEC with a view to the public offering of shares of virtual currency-related investment funds.¹⁷⁸

i Legal and regulatory environment overview

All offers and sales of securities in the United States, including by investment funds, must either be registered with the SEC under the Securities Act or be exempt from such registration.¹⁷⁹ The Securities Act imposes rigorous disclosure requirements in connection with the offer and sale of registered securities. Additionally, investment funds that invest substantially in securities¹⁸⁰ and wish to issue their shares to the public in the United States generally are subject to registration and regulation as investment companies under the Investment Company Act of 1940 (the Company Act). The Company Act substantively regulates virtually every aspect of the business and operations of a registered investment company. Investment advisers to investment funds that invest substantially in securities generally are subject to registration and regulation as investment advisers under the Investment Advisers Act of 1940 (the Advisers Act) unless an exemption is available. The Advisers Act substantively regulates the business of investment advisers and their relationships with their clients, including investment funds. The Director of the Division of Investment Management of the SEC, which administers the Company Act and the Advisers Act, as well as the Securities Act as applied to investment companies registered under the Company Act, has expressed particular concerns regarding investment funds that invest in virtual currencies and related assets.¹⁸¹ The operators of investment funds that invest or may invest to any extent in derivatives, including virtual currency-based or digital assets-based derivatives, are also subject to regulation by the CFTC under the CEA, including disclosure, reporting and record-keeping requirements under the Part 4 Rules of the CFTC.¹⁸² Registered CPOs and CTAs also are required to be members of the NFA, which imposes additional substantive regulation on their business activities.¹⁸³ The

177 See 'Cryptocurrency Investment Fund Industry Graphs and Charts', Crypto Fund Research, <https://cryptofundresearch.com/cryptocurrency-funds-overview-infographic/> (last visited July 5, 2019).

178 See, e.g., ProShares Trust II, Registration Statement (Form S-1) (Sept. 27, 2017); Etherindex Ether Tr., Registration Statement (Form S-1) (Sep. 5, 2017); VanEck SolidX Bitcoin Tr., Registration Statement (Form S-1) (June 5, 2018); Rex Bitcoin Strategy Fund, Registration Statement (Form N-1A) (Nov. 3, 2017).

179 See Securities Act §§ 4, 5 (codified at 15 U.S.C. §§ 77d, 77e (2018)).

180 The status of virtual currencies and digital tokens as securities is addressed in Section II.

181 Letter from Dalia Blass, Dir., Div. of Inv. Mgmt., US Sec. and Exch. Comm'n, to Paul Schott Stevens, President & Chief Exec. Officer, Inv. Co. Inst., and Timothy W Cameron, Head of Asset Mgmt. Group, Sec. Indus. and Fin. Mkts. Assoc., 'Engaging on Fund Innovation and Cryptocurrency-related Holdings' (Jan. 18, 2018), <https://www.sec.gov/divisions/investment/noaction/2018/cryptocurrency-011818.htm>.

182 The CFTC and the CEA do not regulate investment funds directly. Rather, they regulate CPOs and CTAs in respect of their operation of, and provision of commodity derivative trading advice to, investment funds that use commodity derivatives, which the CEA and the CFTC refer to as commodity pools.

183 The NFA has implemented rules specifically addressing transactions in and offerings of virtual currencies and related assets. In December 2017, the NFA issued reporting requirements that required CPOs to notify

Exchange Act may subject an investment fund to public reporting requirements that include, among other things, quarterly and annual reports filed with the SEC that must comply with SEC rules regarding their content.¹⁸⁴ Generally, these reporting obligations arise when an investment fund's shares are listed on a national securities exchange, or when its equity securities are held by either 2,000 persons or 500 persons who are not accredited investors, and the issuer has total assets exceeding US\$10 million.¹⁸⁵

Private fund managers typically avoid the registration and disclosure obligations of the Securities Act by offering securities in the United States pursuant to Section 4(a)(2) of the Securities Act, which exempts from registration transactions 'by an issuer not involving any public offering'.¹⁸⁶ Regulation D under the Securities Act (Regulation D) establishes a safe harbour that assures exemption under Section 4(a)(2). Historically, a material requirement of Regulation D was a prohibition on general solicitation or general advertising.¹⁸⁷ However, pursuant to the Jumpstart our Business Startups Act, enacted in 2012, the SEC amended Rule 506 of Regulation D to provide that the prohibition against general solicitation will not apply where, along with the other requirements of Regulation D being met, all purchasers of the securities in the offering are accredited investors and reasonable efforts, as described in the amended rule, are undertaken to verify their status as such.¹⁸⁸

Private investment funds generally avoid registration and regulation under the Company Act by relying on one of two available exclusions from the definition of the term investment company.¹⁸⁹ Section 3(c)(1) of the Company Act provides an exclusion for investment funds that have fewer than 100 beneficial owners, and Section 3(c)(7) provides an exclusion for investment funds that are sold exclusively to qualified purchasers (without imposing any limit on the number of beneficial owners). Both Section 3(c)(1) and Section 3(c)(7) require that the investment fund not make or propose to make a public offering of its securities (which is satisfied by complying with Regulation D). A number of investment funds that propose to invest solely in virtual currencies or their derivatives, and have sought to sell their securities to the public and list them for trading on a national securities exchange, have relied on Section 3(b)(1) of the Company Act for exclusion from registration and regulation thereunder. Section 3(b)(1) excludes any issuer primarily engaged in a business or businesses other than that of investing, reinvesting, owning, holding or trading in securities. Reliance on this exclusion requires that the digital currencies or tokens in which an investment fund will

the NFA immediately once they have executed a transaction involving any virtual currency transaction or virtual currency derivative (including futures, options or swaps) on behalf of a commodity pool. On 9 August 2018, the NFA adopted disclosure requirements for NFA members offering commodity pools that trade virtual currencies or virtual currency derivatives. The NFA's disclosure guidelines highlighted concerns with virtual currencies such as price volatility, valuation and liquidity, and virtual currency exchanges, intermediaries and custodians, cybersecurity and the opaque spot market. See NFA Notice, footnote 59.

184 Exchange Act § 13 (codified at 15 U.S.C. § 78m (2018)).

185 Exchange Act § 12(g) (codified at 15 U.S.C. § 78l (2018)).

186 15 U.S.C. § 77d (2018).

187 See Rule 502(c) of Regulation D (codified at 17 C.F.R. § 230.502(c) (2018)).

188 See Rule 506(c) of Regulation D (codified at 17 C.F.R. § 230.506(c) (2018)).

189 See Company Act § 3(a)(1)(A), (C) (codified at 15 U.S.C. §§ 80a-3(a)(1)(A), (C) (2018)).

invest are not securities (in the case of an investment fund that will hold virtual currencies, such as Bitcoin or Ether) or that the investment fund is a commodity pool (in the case of an investment fund that may invest in Bitcoin derivatives).¹⁹⁰

Investment advisers to private funds have sought to avoid registration and regulation under the Advisers Act by not advising registered investment companies, and either keeping their assets under management below the threshold that would require registration under Section 203A of the Advisers Act (which may subject them to regulation at the state level) or operating as exempt reporting advisers under the private fund adviser exemption.¹⁹¹ However, once a private fund adviser's assets under management exceed US\$150 million, or if the adviser acts as investment adviser to a registered investment company or a separately managed account, registration and regulation under the Advisers Act are unavoidable. Compliance with the Advisers Act has proved challenging in the digital asset context. Compliance with Advisers Act Rule 206(4)-2, the custody rule, has been particularly challenging for investment advisers due to the general lack of qualified custodians to hold digital assets for the benefit of an investment fund and the lack of guidance from the SEC on how to comply with the custody rule with respect to digital assets.¹⁹² The staff of the SEC's Division of Investment Management recently published a letter seeking public input on the applicability of the custody rule to digital assets.¹⁹³ Noting that amendments to the custody rule are on the SEC's long-term unified agenda, the staff stated that it expects to utilise what it learns from this information-gathering initiative to inform any future recommendations to the SEC with respect to any regulatory action that may be necessary or appropriate.¹⁹⁴

Exemptions from registration and regulation as a CPO or CTA may be available. A CPO may be exempt from registration under the de minimis rule if commodity derivatives are not a material component of the investment fund's portfolio, and if the fund's securities are sold in transactions exempt from registration under the Securities Act and are offered and sold without marketing to the public in the United States (which is satisfied by complying with Regulation D).¹⁹⁵ If the de minimis exemption is not available, registration with the CFTC as a CPO and membership in NFA is required. However, once a CPO is registered, an exemption from most of the otherwise applicable CFTC disclosure, reporting and record-keeping rules is available if the investment fund is sold exclusively to qualified eligible persons in an offering exempt from registration under the Securities Act (which is satisfied by complying with Regulation D).¹⁹⁶ Because qualified purchasers are, by definition, qualified eligible persons, an investment fund that relies on Section 3(c)(7) for exclusion from the

190 In a line of no-action letters, the SEC has provided guidance as to how to distinguish a commodity pool from an investment company required to be registered and regulated under the Company Act. See *Peavey Commodity Funds I, II and III*, 1983 SEC No-Act. LEXIS 2576 (June 2, 1983); *EF Hutton and Company Inc* (June 22, 1983); *Ft Tryon Futures Fund Limited Partnership*, 1990 SEC No-Act. LEXIS 1192 (Aug. 16, 1990); *Managed Futures Association*, 1996 SEC No-Act. LEXIS 623 (July 15, 1996).

191 See Advisers Act Rule 203(m)-1 (codified at 17 C.F.R. § 275.203(m)-1 (2018)).

192 See Advisers Act Rule 206(4)-2 (codified at 17 C.F.R. § 275.206(4)-2 (2018)).

193 Letter from Paul G Cellupica, Deputy Dir. and Chief Counsel, Div. of Inv. Mgmt., US Sec. and Exch. Comm'n, to Karen Barr, President & Chief Exec. Officer, Inv. Adviser Assoc., 'Engaging on Non-DVP Custodial Practices and Digital Assets' (Mar. 12, 2019), <https://www.sec.gov/investment/non-dvp-and-custody-digital-assets-031219-206>.

194 id.

195 See CFTC Rule 4.13(a)(3) (codified at 17 C.F.R. § 4.13(a)(3) (2018)).

196 See CFTC Rule 4.7 (codified at 17 C.F.R. § 4.7 (2018)).

Company Act generally will be eligible for this relief. Exemption from registration as a CTA (and membership in NFA) is available for CTAs that have 15 or fewer advisory clients in the past 12 months and who do not hold themselves out generally to the public as CTAs.¹⁹⁷ Other exemptions from CTA registration may be available as well.

ii Attempts at public offerings

Several fund sponsors have filed registration statements with the SEC for virtual currency-related investment funds with a view to offering them to the public and, in some instances, listing their shares on a national securities exchange.¹⁹⁸ These investment funds include investment companies registered under the Company Act, commodity pools exempt from the Company Act pursuant to Section 3(b)(1) but fully compliant with the Part 4 Rules of the CFTC and investment funds that are exempt from the Company Act pursuant to Section 3(b)(1) (because they do not invest in securities) and not regulated under the CEA or the Part 4 rules of the CFTC (because they do not invest in commodity derivatives).¹⁹⁹ To date, the SEC has not declared effective any registration statement for any such issuer, and SEC staff have compelled the withdrawal of a number of registration statements for registered investment companies that would invest in virtual currencies, digital tokens or derivatives referencing such assets under threat of enforcement action.²⁰⁰ In June 2018, the SEC disapproved the listing and trading of the Winklevoss Bitcoin Trust, finding that because Bitcoin markets are not ‘uniquely resistant to manipulation’, the listing of a Bitcoin fund by a securities exchange was not consistent with the requirements of the exchange to prevent fraudulent and manipulative acts and practices and to protect investors and the public interest. In August 2018, the SEC rejected nine separate applications to list Bitcoin exchange-traded funds.

Additionally, the SEC has disapproved applications by securities exchanges to list the securities of funds that would invest in digital assets. The SEC must authorise the listing of every security traded on a national securities exchange in the United States. Although generic listing rules are available for most types of securities commonly listed on national securities exchanges, if the security or issuer exhibits new or novel features, the exchange must submit an application to the SEC’s Division of Trading and Markets to promulgate a new listing rule designed specifically for that issuer and security.²⁰¹ The SEC has disapproved applications to list securities of an exchange-traded investment product that would invest solely in Bitcoin, finding that the investment funds in question were inconsistent with Section 6(b)(5) of the Exchange Act, which requires that rules of national securities exchanges be designed to prevent fraudulent and manipulative acts and practices, and protect investors and the public

197 See CEA § 4m(1) (codified at 7 U.S.C. § 6m(1) (2018)); CFTC Rule 4.14(a)(10) (codified at 17 C.F.R. § 4.14(a)(10) (2018)).

198 E.g., Winklevoss Bitcoin Tr., Registration Statement (Form S-1) (Dec. 7, 2016); Etherindex Registration Statement, footnote 178; VanEck Registration Statement, footnote 178; Rex Registration Statement, footnote 178.

199 E.g., VanEck Registration Statement, footnote 178.

200 See Letter from J Garrett Stevens, President, Exch. Listed Funds Tr., to US Sec. and Exch. Comm’n, ‘Exchange Listed Funds Trust (File Nos. 333-180871 and 811-22700) Request for Withdrawal of Post-Effective Amendment No. 47’ (Oct. 5, 2017), https://www.sec.gov/Archives/edgar/data/1547950/000139834417012782/fp0028414_aw.htm.

201 See 17 C.F.R. § 240.19b-4 (2018).

interest.²⁰² Other applications for exchange-traded investment products that would invest in digital assets have also been submitted, and a number of such applications have been rejected by the SEC.

iii The Dalia Blass Letter

On 18 January 2018, the Division of Investment Management of the SEC issued a letter to the Investment Company Institute and the Securities Industry and Financial Markets Association (Blass Letter). This letter outlined the SEC's concerns regarding virtual currency-related funds in relation to valuation, liquidity, custody, arbitrage (in respect of exchange traded funds) and potential manipulation and other risks associated with virtual currency-related funds.²⁰³ While the Blass Letter was issued in response to an attempt to register investment products under the Company Act, the SEC noted that these concerns apply also to private virtual currency-related funds.²⁰⁴ The SEC also noted that 'until the questions raised [in the Blass Letter] can be addressed satisfactorily, [they] do not believe that it is appropriate for fund sponsors to initiate registration of funds that intend to invest substantially in virtual currency and related products'.²⁰⁵ The Blass Letter noted that 'cryptocurrency markets are developing swiftly. Additional questions may arise from these developments'.²⁰⁶ At the same time, the SEC has clearly signalled its willingness to work with the industry by indicating that, 'over the years, dialogue between fund sponsors and the [SEC] has facilitated the development of many new types of investment products'.²⁰⁷

VII CRIMINAL AND CIVIL FRAUD AND ENFORCEMENT

i Civil enforcement

Both the CFTC and SEC have declared expressly their intention to police conduct in the cryptocurrency markets. On 19 January 2018, the Directors of Enforcement for the CFTC and the SEC released a highly unusual joint statement, stating:

When market participants engage in fraud under the guise of offering digital instruments – whether characterised as virtual currencies, coins, tokens, or the like – the SEC and the CFTC will look beyond form, examine the substance of the activity and prosecute violations of the federal securities and commodities laws. The Divisions of Enforcement for the SEC and CFTC will continue to address violations and bring actions to stop and prevent fraud in the offer and sale of digital instruments.²⁰⁸

202 See US Sec. and Exch. Comm'n, 'Self-Regulatory Organizations; Order Disapproving a Proposed Rule Change, as Modified by Amendments No. 1 and 2, to BZX Rule 14.11(e)(4), Commodity-Based Trust Shares, to List and Trade Shares Issued by the Winklevoss Bitcoin Trust', Exchange Act Release 34-80206 (Mar. 10, 2017), <https://www.sec.gov/rules/sro/batsbzx/2017/34-80206.pdf>.

203 Blass, footnote 181.

204 id.

205 id.

206 id.

207 id.

208 James McDonald et al., 'Joint statement from CFTC and SEC Enforcement Directors Regarding Virtual Currency Enforcement Actions' (Jan. 19, 2018), <http://www.cftc.gov/PressRoom/SpeechesTestimony/mcdonaldstatement011918>.

That same day, the CFTC Chair, J Christopher Giancarlo, delivered a speech on virtual currencies in which he stated that '[t]he CFTC believes that the responsible regulatory response to virtual currencies involves asserting CFTC legal authority over virtual currency derivatives in support of anti-fraud and manipulation enforcement, including in underlying spot markets'.²⁰⁹ In another truly extraordinary event, the Chairs of the SEC and CFTC, Jay Clayton and Giancarlo, penned a joint op-ed for the *Wall Street Journal* addressing the oversight of virtual currencies. They stated their agencies 'along with other federal and state regulators and criminal authorities, will continue to work together [. . .] to deter and prosecute fraud and abuse'.²¹⁰

SEC

The SEC's enforcement jurisdiction is somewhat more limited than the CFTC's because the SEC can only bring actions involving instruments falling within the definition of security. However, once properly regarded as a transaction in a security, the SEC's enforcement powers sweep very broadly, with possible statutory and rule violations involving registration, business conduct, trading and many other types of statutory and regulatory requirements, as well as fraud and manipulation.²¹¹ In 2017, the SEC's Division of Enforcement formed a Cyber Unit, which it stated would focus on the following:

- a market manipulation schemes involving false information spread through electronic and social media;
- b hacking to obtain material non-public information and trading on that information;
- c violations involving distributed ledger technology and ICOs;
- d misconduct perpetrated using the dark web;
- e intrusions into retail brokerage accounts; and
- f cyber-related threats to trading platforms and other critical market infrastructure.²¹²

As described in more detail in Section II, the SEC issued the DAO Report in July 2017, finding that the tokens offered and sold by the DAO were securities, and thus subject to the requirements of the federal securities laws.

In the wake of the DAO Report, the SEC has brought various actions for illegal ICOs, sometimes, but not always, including charges of fraud. For example, in September 2017, it brought charges against an individual and his two companies for fraud in two ICOs purported to be backed by investments in real estate and diamonds. In the former, the alleged misstatements included that the company had a 'team of lawyers, professionals, brokers, and accountants' that would invest the ICO proceeds into real estate when in fact none had been hired or even consulted. The individual and his company allegedly misrepresented they had raised between US\$2 million and US\$4 million from investors when the actual amount was approximately US\$300,000. In the case of the second company, the allegations were that

209 J Christopher Giancarlo, 'Remarks of Chair J Christopher Giancarlo to the ABA Derivatives and Futures Section Conference, Naples, Florida' (Jan. 19, 2018), <http://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo34>.

210 Jay Clayton & J Christopher Giancarlo, 'Regulators Are Looking at Cryptocurrency', *Wall Street Journal* (Jan. 24, 2018), <https://www.wsj.com/articles/regulators-are-looking-at-cryptocurrency-1516836363>.

211 See, e.g., US Sec. and Exch. Comm'n Div. of Enf't Ann. Rep. (2017), <https://www.sec.gov/files/enforcement-annual-report-2017.pdf>.

212 *id.*, at 4.

they claimed to have purchased diamonds and engaged in other business operations when they had actually done nothing in that regard.²¹³ The SEC obtained an emergency asset freeze against the defendants.

As another example, in December 2017, the SEC charged a Canadian and his company with fraudulently marketing tokens to US investors (and thus also violating the registration provisions of the US securities law), and obtained an emergency asset freeze.²¹⁴ In a further example, in May 2018, the SEC filed a complaint and obtained an emergency asset freeze, and then a consented-to preliminary injunction and appointment of a receiver, in connection with an alleged ongoing fraudulent ICO that had raised US\$21 million by a self-described 'blockchain evangelist' who had misrepresented his business relationship with the Fed and many well-known companies.²¹⁵

As previously noted, the SEC has demonstrated its willingness to move against unregistered ICOs that it views as securities offerings even in the absence of fraud. As described in Section II, in December 2017, the SEC filed a settled administrative proceeding against Munchee for making an illegal, unregistered securities offering. After being contacted by the SEC, Munchee agreed voluntarily to halt the offering, to return to investors the proceeds raised to that point and to the entry of the order finding a violation of the securities registration provisions of the Securities Act.²¹⁶

In February 2018, the SEC brought an action against a former platform and its operator for operating an unregistered securities exchange and also for defrauding users of the exchange. The exchange offered what the SEC alleged were securities in 'virtual currency-related enterprises in exchange for [B]itcoins'. The operator of the exchange was also charged with fraud in connection with an illegally unregistered token offering.²¹⁷

In September 2018, the SEC took action against an ICO website for operating as an unregistered broker-dealer in violation of the federal securities laws.²¹⁸ As previously signalled in the DAO Report and public statements by SEC staff, this action reiterated that those who directly or indirectly offer trading or other services related to digital assets that are securities must comply with the federal securities laws.

An October 2018 complaint filed by the SEC alleging securities fraud illustrates the fact specific nature of applying the *Howey* test to determine whether a security is at issue.²¹⁹ The district court judge initially denied the SEC's request to freeze the defendant's assets, finding the SEC had failed to reasonably demonstrate the tokens were securities, in part based on serious differences in the facts alleged by the SEC and the defendant. However, the SEC filed a motion for reconsideration and the court ultimately granted the injunction.

213 *SEC v. REcoin Group Foundation, LLC, et al.*, No. 17-cv-05725 (E.D.N.Y. Sept. 29, 2017).

214 *SEC v. PlexCorps, et al.*, No. 1:17-cv-07007-DLI-RML (E.D.N.Y. Dec. 1 2017).

215 *SEC v. Titanium Blockchain Infrastructure Services, Inc, et al.*, CV18-4315-DSF (JPRx) (C.D. Cal. May 22, 2018); see also *SEC v. Arisebank, et al.*, No. 18-cv-00186 (N.D. Tex. Jan. 25, 2018) (allegedly fraudulent ICO in connection with a claim of creating the world's first decentralised bank); *SEC v. Sharma, et al.*, No. 18-cv-02909-DLC (S.D.N.Y. Apr. 2, 2018) (allegedly fraudulent US\$32 million ICO).

216 *Munchee*, footnote 6.

217 *SEC v. Montroll, et al.*, 1:18-cv-01582 (S.D.N.Y. Feb. 21, 2018).

218 *TokenLot, LLC, et al.*, Securities Act Release No. 10543, Exchange Act Release No. 84075, Company Act Release No. 33221, Admin. File No. 3-18739 (Sept. 11, 2018).

219 *SEC v. Blockvest*, No. 3:18-cv-02287 (S.D. Cal. Oct. 3, 2018).

In November 2018, the SEC announced settlements against two separate ICO issuers for conducting unregistered public offerings.²²⁰ For the first time in an SEC action settlement, each issuer in these cases agreed, under the terms of its respective settlement, to register its tokens as securities by filing a Form 10 with the SEC and to thereafter make all required filings under the Exchange Act. Such registration and periodic reporting is intended to provide the token purchasers the benefit of receiving disclosures as required by the Exchange Act. In February 2019, the SEC settled against another ICO issuer with generally similar facts.²²¹ In this instance, however, the SEC did not impose a penalty against the issuer because the issuer self-reported its unregistered ICO to the SEC, cooperated with the SEC's investigation and voluntarily agreed to take remedial steps.

Additionally, in November 2018, the SEC announced its enforcement settlement against the founder of a decentralised digital asset trading platform, EtherDelta, arising out of EtherDelta's alleged operation of an unregistered national securities exchange.²²² As discussed in Section II, the Exchange Act mandates that an exchange be registered with the SEC as a national securities exchange or be exempt from registration. The EtherDelta website provided users access to an order book for tokens, displayed firm bids and offers for tokens, allowed users to buy or sell tokens and employed a smart contract to execute orders. More specifically, as a decentralised exchange, EtherDelta utilised a smart contract to self-execute trades by validating orders, confirming order terms and conditions, executing pair orders and updating the Ethereum blockchain to reflect the trade.

The SEC has also acted when illegal sales of securities occur linked to sudden price increases in what were previously shell companies in the wake of announcements that they had entered into cryptocurrency-related businesses.²²³ Finally, while not constituting enforcement actions, the SEC has halted trading in the shares of a number of companies involved or purportedly involved in cryptocurrency-related businesses because of unusual and unexplained market activity, concerns about the accuracy and adequacy of publicly released information about the company, or both.²²⁴

CFTC

The principal mechanisms that the CFTC uses to bring enforcement actions involving cryptocurrencies are the broad statutory and regulatory provisions prohibiting fraud and manipulation in connection with 'a contract of sale of any commodity in interstate

220 *In re CarrierEQ, Inc. d/b/a Airfox*, Securities Act Release No. 10575, Admin. File No. 3-18898 (Nov. 16, 2018); *In re Matter of Paragon Coin, Inc.*, Securities Act Release No. 10574, Admin. File No. 3-18897 (Nov. 16, 2018).

221 Gladius Network LLC, Securities Act Release No. 10608, Admin. File No. 3-19004 (Feb. 20, 2019).

222 *In re Coburn*, Exchange Act Release No. 84553, Admin. File No. 3-18888 (Nov. 8, 2018).

223 See, e.g., *SEC v. Jesky, et al.*, No. 1:18-cv-05980-JFK (S.D.N.Y. July 2, 2018) (sale of shares in excess of price required by registration statement); *SEC v. Longfin Corp, et al.*, No. 1:18-cv-02977-DLC (S.D.N.Y. Apr. 4, 2018) (unregistered distribution of shares and sale of restricted shares by CEO and three other affiliated individuals).

224 See, e.g., US Sec. and Exch. Comm'n, Exchange Act Release No. 83518 (June 25, 2018) (temporary suspension of trading in the securities of Evolution Blockchain Group Inc.); US Sec. and Exch. Comm'n, Exchange Act Release No. 83084 (Apr. 20, 2018) (temporary suspension in the trading of IBITX Software Inc.); US Sec. and Exch. Comm'n, Exchange Act Release No. 82452 (Jan. 5, 2018) (temporary suspension in the trading of UBI Blockchain Internet, Ltd.).

commerce'.²²⁵ The CEA, in turn, defines a commodity to include, with very limited exceptions, 'all [. . .] goods and articles [. . .] and all services, rights and interests [. . .] in which contracts for future delivery [i.e., futures] are presently or in the future dealt in'.²²⁶ Enforcement actions can also be brought for violations of registration and other regulatory requirements if the transactions take the form of swaps, futures or even commodity cryptocurrency transactions with retail customers (as discussed further below).

In September 2015, the CFTC brought two actions in quick succession. It first entered into a settlement agreement with a trading platform named Coinflip, Inc, which was hosting trading in Bitcoin options. The CFTC declared Bitcoin and other virtual currencies to be commodities within the meaning of the CEA, and thus the platform, which was unregistered, to be illegally hosting trading in options on commodities.²²⁷ A week later, the CFTC brought another case against a trading platform that was registered as a SEF for failing to prevent wash trading. The CFTC asserted that the platform had arranged a transaction to 'test the pipes' by doing a round-trip trade, but then publicised the transactions without noting they were pre-arranged to test the systems, 'creating the impression of actual trading interest in the Bitcoin swap'.²²⁸

In June 2016, the CFTC entered a settlement order with another trading platform, Bitfinex, involving spot transactions in the virtual currency itself.²²⁹ Bitfinex allowed trading on a 30 per cent margin, and thus potentially fell under the retail commodity transaction provisions of the CEA.²³⁰ The CFTC concluded that there was not actual delivery of the virtual currency, and thus Bitfinex was operating illegally by not complying with the requirement to register as a DCM. In concluding that actual delivery had not taken place, the CFTC was principally concerned that 'Bitfinex retained control over the private keys' to the wallets in which the customers' coins were held.²³¹

In September 2017, the CFTC charged an individual and his company with fraud, misappropriation and issuing false account statements in connection with solicited investments in Bitcoin. The defendants were accused of operating a Ponzi scheme, whereby investors were encouraged to place their funds in a pool that would be managed by using 'a high-frequency, algorithmic trading strategy'.²³²

225 7 U.S.C. § 9(1) (2018); see also 17 C.F.R. § 180.1 (2018).

226 7 U.S.C. § 1a(9) (2018).

227 *Coinflip*, footnote 53.

228 *In re TeraExchange LLC*, CFTC No. 15-33 (Sept. 24, 2015).

229 *BFXNA*, footnote 54.

230 The CEA's various regulatory requirements apply to all transactions with retail customers in any commodity involving margin, leverage or financing provided by the seller or someone acting in concert with the seller without regard to whether the contract could be characterised as a derivative or a futures transaction, as long as it is not a true spot transaction, meaning there is actual delivery of the commodity to the customer within no more than 28 days, or covered by certain other limited exceptions. See 7 U.S.C. § 2(c)(2)(D) (2018).

231 *BFXNA*, footnote 54. As the CFTC put it: 'In the context of cryptocurrencies, a 'private key' is a secret number (usually a 256-bit number) associated with a deposit wallet that allows [B]itcoins in that wallet to be spent'. *id.*, at *3 n.4. This focus on the private key as the basis for analysing delivery raised concerns and has led the CFTC to propose an interpretation to address the issue of actual delivery in the context of virtual currencies. See Geoffrey F Aronow, 'Projections Of The Imagination: When is a Token Actually Delivered?', 38 *Futures & Derivatives L. Rep.* 11 (Jan. 2011).

232 *CFTC v. Gelfman Blueprint, Inc et al.*, No. 1:17-cv-07181-PKC (S.D.N.Y. Sept. 21, 2017).

On 18 January 2018, the CFTC filed two lawsuits in federal court alleging fraud in connection with the trading of virtual currencies. One involved allegations that the perpetrators were promoting a pooled investment vehicle in which the investors would contribute Bitcoin, which would be converted into fiat currency and then used to trade various commodity interests.²³³ The other case involved an allegation of trading advice relating to trading of virtual currencies themselves.²³⁴ Both involved simple allegations that the defendants misappropriated the funds.

On 24 January 2018, the CFTC announced that it had filed an action under seal on 16 January 2018, alleging misappropriation of over US\$6 million in funds from customers.²³⁵ In this instance, the allegations focused on misrepresentations about how the form of virtual currency being promoted, My Big Coin (MBC), could be used with merchants and others to process transactions with MBC. On 6 March 2018, the CFTC won affirmation from a federal district court of its antifraud authority over virtual currencies.²³⁶ In the context of ruling on the CFTC's motion for a preliminary injunction (which the court granted), the court held that CEA Section 6(c)(1), as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act and as implemented by CFTC Rule 180.1, does grant the CFTC jurisdiction to bring cases for fraud in cash markets in general and virtual currencies in particular.²³⁷ The alleged fraud involved purported consulting services and trading advice relating to Bitcoin and another virtual currency, Litecoin.²³⁸ On 23 August 2018, following a non-jury trial, the case was decided in favour of the CFTC, and the defendants were ordered to pay US\$1.1 million in civil monetary penalties and restitution.²³⁹

ii Criminal enforcement

The DOJ and other law enforcement authorities are rapidly recognising that cryptocurrencies present a variety of opportunities for engaging in fraud, money laundering and other criminal activity. As a result, the last several years have seen a noticeable uptick from prior years in criminal investigations and charges involving cryptocurrencies across a broad spectrum of crimes. Indeed, at a digital asset industry conference in June 2018, the Federal Bureau of Investigation (FBI) revealed that it had 130 cases under investigation that had been 'threat tagged' as involving cryptocurrencies, covering crimes including 'human trafficking, illicit drug sales, kidnapping and ransomware attacks'.²⁴⁰

233 *CFTC v. Dean, et al.*, No. 2:18-cv-00345 (E.D.N.Y. Jan. 18, 2018).

234 *McDonnell*, footnote 56.

235 Commodity Futures Trading Comm'n, 'CFTC Charges Randall Crater, Mark Gillespie, and My Big Coin Pay, Inc. with Fraud and Misappropriation in Ongoing Virtual Currency Scam' (Jan. 24, 2018), <https://www.cftc.gov/PressRoom/PressReleases/pr7678-18>.

236 *McDonnell*, footnote 56; see also *My Big Coin Pay*, footnote 56.

237 *McDonnell*, footnote 56.

238 *id.*, at 3.

239 See *McDonnell*, footnote 57.

240 Lily Katz & Annie Massa, 'FBI Has 130 Cryptocurrency-Related Investigations, Agent Says', Bloomberg (June 27, 2018), <https://www.bloomberg.com/news/articles/2018-06-27/fbi-has-130-cryptocurrency-related-investigations-agent-says>.

Investment fraud

A cryptocurrency is not just a medium of exchange, but also an investment. For that reason, in several widely reported instances, the DOJ has recognised the opportunities that now exist for the perpetration of fraud against cryptocurrency investors.

In May 2018, the US Attorney for the Southern District of New York (SDNY) brought what is believed to be the first criminal fraud charges against the issuers of an ICO. Specifically, the SDNY charged three co-founders of a startup company, Centra Tech, with ‘conspiring to commit, and the commission of, securities and wire fraud in connection with a scheme to induce victims to invest millions of dollars’ worth of digital funds for the purchase of unregistered securities, in the form of digital currency tokens issued by Centra Tech, through material misrepresentations and omissions’.²⁴¹ In particular, the indictment alleged that the defendants’ offering materials for the ICO misrepresented details about their supposed executive team, their supposed partnerships with established financial institutions and their supposed state licensing. In connection with the charges, the FBI seized 91,000 Ether units that represented US\$60 million in investor funds.

More recently, in early 2019, the DOJ brought two additional significant cases against alleged large-scale cryptocurrency fraudsters. First, in February 2019, it charged Randall Crater, the founder of Las Vegas-based My Big Coin Pay, with wire fraud and engaging in illegal monetary transactions in connection with creating and marketing the fraudulent virtual currency MBC while misappropriating more than \$6 million in investor funds.²⁴² Shortly thereafter, in March 2019, it charged Konstantin Ignatov and Ruja Ignatova with a far larger, multibillion-dollar scheme in which the defendants allegedly bilked investors in the fraudulent cryptocurrency OneCoin, which authorities asserted had ‘no real value.’²⁴³

Focusing on a different type of fraud – market manipulation – the DOJ was reported in May 2018 to have opened a parallel investigation with the CFTC into manipulation of the market for Bitcoin and other digital currencies.²⁴⁴ The DOJ’s market-manipulation probe was reported to focus on a variety of illegal practices that might influence prices, including spoofing. Although reported as a seemingly broad-based investigation when it was opened, this federal criminal investigation likely soon found at least one area of particular focus in June 2018 when researchers at the University of Texas released a paper in which they purported to have identified a specific instance of fraudulent manipulation of the market for Bitcoin in

241 US Attorney’s Office, S.D.N.Y., US Dep’t of Justice, press release No. 18-157, ‘Founders Of Cryptocurrency Company Indicted In Manhattan Federal Court With Scheme To Defraud Investors’ (May 14, 2018), <https://www.justice.gov/usao-sdny/pr/founders-cryptocurrency-company-indicted-manhattan-federal-court-scheme-defraud>.

242 Office of Pub. Affairs, US Dep’t of Justice, press release No. 19-169, ‘New York Man Charged with Cryptocurrency Scheme’ (Feb. 27, 2019), <https://www.justice.gov/opa/pr/new-york-man-charged-cryptocurrency-scheme>.

243 US Attorney’s Office, S.D.N.Y., US Dep’t of Justice, press release No. 19-071, ‘Manhattan U.S. Attorney Announces Charges Against Leaders Of ‘OneCoin,’ A Multibillion-Dollar Pyramid Scheme Involving The Sale Of A Fraudulent Cryptocurrency’ (Mar. 8, 2019), <https://www.justice.gov/usao-sdny/pr/manhattan-us-attorney-announces-charges-against-leaders-onecoin-multibillion-dollar>.

244 Matt Robinson & Tom Schoenberg, ‘U.S. Launches Criminal Probe into Bitcoin Price Manipulation’, Bloomberg (May 24, 2018), <https://www.bloomberg.com/news/articles/2018-05-24/bitcoin-manipulation-is-said-to-be-focus-of-u-s-criminal-probe>.

2017 involving activity at a specific cryptocurrency exchange.²⁴⁵ It was reported in November 2018 that the DOJ is focusing on the possibility that Tether – a different cryptocurrency with a value that is supposedly tied to the US dollar – was illegally used to prop up the value of Bitcoin.²⁴⁶

Overall, the opportunities to defraud investors in cryptocurrencies are many and varied. No doubt for this reason, the DOJ's July 2018 announcement that it had created a new task force on market integrity and consumer fraud noted prominently that one of the task force's main areas of focus would be digital currency fraud.²⁴⁷

Money laundering

The use of cryptocurrencies in money laundering – a crime that can involve either laundering the proceeds of criminal activity or transmitting funds for the purpose of carrying on criminal activity²⁴⁸ – is one of the most significant focuses of attention by the DOJ. Former Deputy Attorney General Rod Rosenstein observed at a Financial Services Roundtable conference in February 2018 that '[a] lot of [. . .] schemes involve [B]itcoin and other cryptocurrencies which do not flow through the traditional financial system', and that the DOJ is 'working [. . .] with our cybercrime task force [. . .] on a comprehensive strategy to deal with that'.²⁴⁹

Not surprisingly, a number of high-profile federal indictments have involved money laundering charges or allegations relating to the defendants' use of cryptocurrencies to carry out or hide the proceeds of their offences. For example, in July 2017, the then-current US Attorney of the Northern District of California, Brian Stretch,²⁵⁰ announced the indictment of Russian national Alexander Vinnik and BTC-e – alleged to be one of the world's largest and most widely used digital currency exchanges – for deliberately allowing BTC-e to be used as a platform 'to facilitate transactions for cybercriminals worldwide and [to] receive[] the criminal proceeds of numerous computer intrusions and hacking incidents, ransomware scams, identity theft schemes, corrupt public officials, and narcotics distribution rings'.²⁵¹ In another big criminal takedown in March 2018, the DOJ charged seven individuals with facilitating prostitution and money laundering through their operation of the notorious prostitution advertising website, backpage.com, accusing them, among other

245 John M Griffin & Amin Shams, 'Is Bitcoin Really Un-Tethered?' (June 13, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3195066; Nathaniel Popper, 'Bitcoin's Price Was Artificially Inflated, Fueling Skyrocketing Value, Researchers Say', *New York Times* (June 13, 2018) <https://www.nytimes.com/2018/06/13/technology/bitcoin-price-manipulation.html>.

246 Matt Robinson & Tom Schoenberg, 'Bitcoin-Rigging Criminal Probe Focused on Tie to Tether', *Bloomberg* (Nov. 20, 2018), <https://www.bloomberg.com/news/articles/2018-11-20/bitcoin-rigging-criminal-probe-is-said-to-focus-on-tie-to-tether>.

247 Office of Pub. Affairs, US Dep't of Justice, press release No. 18-911, 'Department of Justice, Bureau of Consumer Financial Protection, U.S. Securities and Exchange Commission, Federal Trade Commission Announce Task Force on Market Integrity and Consumer Fraud' (July 11, 2018), <https://www.justice.gov/opa/pr/department-justice-bureau-consumer-financial-protection-us-securities-and-exchange-commission>.

248 18 U.S.C. § 1956 (2018).

249 Sead Fadić, 'US Government Working on Crypto Strategy', *Cryptonews* (Feb. 28, 2018), <https://cryptonews.com/news/us-government-working-on-crypto-strategy-1301.htm>.

250 Now a partner at Sidley Austin LLP.

251 US Attorney's Office, N.D. Cal., US Dep't of Justice, 'Russian National And Bitcoin Exchange Charged In 21-Count Indictment For Operating Alleged International Money Laundering Scheme And Allegedly Laundering Funds From Hack Of Mt. Gox' (July 26, 2017), <https://www.justice.gov/usao-ndca/pr/russian-national-and-bitcoin-exchange-charged-21-count-indictment-operating-alleged>.

things, of furthering their ‘money laundering efforts [by] [. . .] us[ing] [B]itcoin processing companies [. . .] such as Coinbase, GoCoin, Paxful, Kraken, and Crypto Capital to receive payments from customers and/or route money through the accounts of related companies’.²⁵² Perhaps the most high-profile money laundering charges involving cryptocurrencies were those brought in July 2018 against 12 Russian intelligence officers charged with hacking the 2016 presidential election, who were alleged to have ‘transferr[ed] cryptocurrencies through a web of transactions in order to purchase computer servers, register domains, and make other payments in furtherance of their hacking activities, while trying to conceal their identities and their links to the Russian government’.²⁵³

Miscellaneous crimes

Finally, beyond money laundering and investment fraud, cryptocurrencies can be either a vehicle for, or an object of, criminal activity in all of the same ways that traditional currency and investments can be. Thus, for example, in March 2018, the Internal Revenue Service (IRS) issued a notice to taxpayers reminding them to ‘report the income tax consequences of virtual currency transactions’ and warning that, in ‘extreme situations, taxpayers could be subject to criminal prosecution for failing to properly report the income tax consequences of virtual currency transactions’.²⁵⁴ In a somewhat unexpected instance of cryptocurrency crime mirroring traditional currency crime, the Manhattan District Attorney’s Office reported in December 2017 that it had indicted an individual named Louis Meza for perpetrating a gunpoint armed robbery of US\$1.8 million worth of Ether tokens.²⁵⁵

VIII TAX

Guidance on the US federal income tax treatment of virtual currencies such as Bitcoin is limited to a single notice (Notice) issued by the IRS,²⁵⁶ which treats such virtual currency as property. From an investor’s perspective, merely calling a virtual currency property leaves many questions unanswered. How does a US taxpayer treat gains on buying and selling a virtual currency? Would a US tax-exempt entity such as a private foundation be able to make an unlevered investment in a virtual currency without incurring unrelated business taxable income (UBTI)? Would a non-US investor be able to invest in a virtual currency through a US-based investment manager (whose operations, personnel and equipment are located in the United States) without being treated as engaged in a US trade or business or having effectively connected income (ECI) in respect of such virtual currency investments?

252 *United States v. Michael Lacey et al.*, No. CR-18-00422-PHX-SPL (BSB) (D. Ariz. Mar. 28, 2018).

253 US Dep’t of Justice, ‘Deputy Attorney General Rod J Rosenstein Delivers Remarks Announcing the Indictment of Twelve Russian Intelligence Officers for Conspiring to Interfere in the 2016 Presidential Election Through Computer Hacking and Related Offenses’ (July 13, 2018), <https://www.justice.gov/opa/speech/deputy-attorney-general-rod-j-rosenstein-delivers-remarks-announcing-indictment-twelve>.

254 The Internal Revenue Serv., IR-2018-71, ‘IRS Reminds Taxpayers to Report Virtual Currency Transactions’ (Mar. 23, 2018), <https://www.irs.gov/newsroom/irs-reminds-taxpayers-to-report-virtual-currency-transactions>.

255 Press release, New York Cty. Dist. Attorney, ‘DA Vance: Man Indicted for Stealing \$1.8 Million in Cryptocurrency’ (Dec. 12, 2017), <https://www.manhattanda.org/da-vance-man-indicted-stealing-18-million-cryptocurrency/>.

256 I.R.S. Notice 2014-21, 2014-16 I.R.B. 938.

Would one need to distinguish, from a US federal income tax perspective, between direct investments in virtual currencies and derivatives on assets like the Bitcoin futures on the Chicago Mercantile Exchange (CME)?

If a US taxable person recognises a gain or loss on the sale or exchange of a virtual currency, the character of such gain or loss generally depends on whether such currency is a capital asset in that person's hands.²⁵⁷ Assuming the US taxable person holds the virtual currency as a capital asset for more than one year, gains are generally treated as long-term capital gain.²⁵⁸ For US tax-exempt persons, gains or losses from the sale or other disposition of property are generally not taxed as UBTI.²⁵⁹ This UBTI exclusion does not apply, however, to inventory or property otherwise held primarily for sale to customers in the ordinary course of business.²⁶⁰

Does investing in virtual currencies constitute investing in securities or commodities for purposes of the Section 864 safe harbour (safe harbour) under the Internal Revenue Code of 1986 (the Code)? As described in greater detail in Section II, the CFTC considers virtual currencies as commodities subject to its regulation.²⁶¹ Similarly, the SEC has asserted jurisdiction when a virtual token offering has hallmarks of a security offering under the broadly interpreted *Howey* test for investment contracts.²⁶²

Can these authorities be applied, by analogy, to conclude that a non-US investor can claim the protection of the safe harbour? The activities of a US-based investment manager are generally attributed to a non-US investor who invests through this manager.²⁶³ If this manager only engages in safe harbour activities (i.e., investing or trading in securities and commodities), such activities do not create a US trade or business for the non-US investor, and gains from such safe harbour activities generally do not constitute ECI.²⁶⁴ If the non-US investor is not protected by the safe harbour, the activities of the US-based investment manager could create a US trade or business generating ECI for such non-US investor, subjecting such investor to US federal net income tax (up to 37 per cent for individuals, or 21 per cent plus 30 per cent branch profits tax for corporations).

While it may be reasonable for a non-US investor to claim the protection of the safe harbour by applying CFTC and SEC authorities by analogy, there is no assurance that the IRS or the courts would agree with such claim. As a result, the tax risk of being incorrect is material. Thus, any offering document for an investment fund that invests in a virtual currency targeted at non-US investors is expected to include robust tax disclosure specifically identifying the risks associated with an investment in a virtual currency. In addition, due to the material tax risks and depending on the precise investment strategy, a fund sponsor will have to make an important gating decision on how narrowly to tailor an offering's target market.

Many fund sponsors cast their nets wide for investors while utilising the most tax-neutral vehicle to raise money from such investors (i.e., no or de minimis entity level tax

257 I.R.S. Notice Q-6/7/A-6/7.

258 26 U.S.C. § 1222(3) (2018). A taxpayer's holding period could be suspended under certain rules, including the straddle rules under Section 1092 of the Code, if the taxpayer enters into hedging positions.

259 *id.*, § 512(b)(5)(B).

260 Treas. Reg. § 1.512(b)-1(d).

261 See, e.g., CFTC Primer, footnote 58.

262 See, e.g., DAO Report, footnote 3.

263 This could be altered by income tax treaties.

264 This treatment could be modified by rules under 26 U.S.C. §§ 897, 1445, 1446 and the Treasury Regulations thereunder.

to the extent permitted under the law). Partnerships (or local law entities that can be treated as partnerships for US federal income tax purposes) are typical vehicles used for pooled investments in commodities and derivatives thereon. Partnerships are generally not taxed at the entity level, so there is very little expected US federal income entity tax cost. However, when interests of a partnership are publicly traded for US federal income tax purposes, the publicly traded partnership (PTP) is treated as a corporation subject to a corporate level income tax of 21 per cent unless certain exceptions apply. One exception is for small offerings (e.g., an offering for a private investment fund exempt from registration as an investment company under Section 3(c)(1) of the Company Act where the number of investors cannot exceed 100 and certain other requirements are met).²⁶⁵ Another is where the partnership meets the qualifying income test, such that at least 90 per cent of the partnership's annual gross income consists of certain passive-type income.²⁶⁶ Notably, gains from direct virtual currency investments are not explicitly included in the definition of qualifying income.²⁶⁷

For non-US investor virtual currency funds, the listing of Bitcoin futures on the CME is a positive development.²⁶⁸ The safe harbour for trading or investing in commodities covers a non-US investor only if the commodities are of a kind customarily dealt in on an organised commodity exchange and if the transaction is of a kind customarily consummated at such place.²⁶⁹ Thus, a non-US investor investing solely in these particular futures (directly or through a partnership for US federal income tax purposes) has tenable support for claiming safe harbour benefits.

Similarly, the CME Bitcoin futures support partnership tax treatment in the case of a PTP where the PTP invests solely in such futures, making possible a retail offering of such PTP interests. In the case of PTPs whose principal activity is the buying and selling of commodities (that are not inventory) or options, futures or forwards with respect to commodities, income and gains from futures on commodities constitute qualifying income.²⁷⁰

In addition, because the CME Bitcoin futures meet the definition of a Section 1256 Contract under the Code,²⁷¹ a US taxable investor generally recognises annual mark-to-market gain (60 per cent long-term capital gain and 40 per cent short-term capital gain) in respect of such investments (directly or through a partnership for US federal income tax purposes).²⁷²

Finally, while there are many uncertain areas relating to the taxation of virtual currencies and activities related thereto, it is worth noting that mining virtual currencies, when conducted in the United States, could be treated as the business of performing services such that any virtual currency from such mining is treated as ordinary income from services, and any taxable income (i.e., receipt of virtual currencies) from mining constitutes UBTI

265 Treas. Reg. § 1.7704-1(h).

266 26 U.S.C. § 7704(c) (2018).

267 *id.*, § 7704(d).

268 'Now Available: Bitcoin Futures', CME Group, <https://www.cmegroup.com/trading/bitcoin-futures.html> (last visited July 5, 2019).

269 26 U.S.C. § 864(b)(2)(B) (2018).

270 *id.*, § 7704(d)(1)(G).

271 A Section 1256 contract includes regulated futures contracts. A regulated futures contract is a contract with respect to which the amount to be deposited and the amount that may be withdrawn depends on a system of marking to market, and which is traded on or subject to the rules of a qualified board or exchange. The term qualified board or exchange includes a domestic board of trade designated as a contract market by the CFTC. *id.*, §§ 1256(b)(1)(A), (g)(1), (g)(7)(B).

272 *id.*, §§ 1256(b)(1), (g)(1), (g)(7), (a)(1), (a)(3).

and ECI.²⁷³ Once a virtual currency is earned and taxed, such currency is merely property and, depending on what the taxpayer does with such currency and where such activities are undertaken, will have varying and potentially complex results for any particular taxpayer.

IX OTHER LEGAL CONSIDERATIONS

i State uniform regulation of virtual currencies

To provide a uniform framework among the various states for the regulation of virtual currency business activities, the Uniform Law Commission developed the Uniform Act.²⁷⁴ As described in greater detail in Section III, the Uniform Act includes licensure, prudential regulations and customer protection requirements relating to certain businesses engaged in activities involving exchanging, transferring or storing virtual currencies. The Uniform Act is intended to provide a clear regulatory regime tailored to address issues specifically relating to virtual currency businesses, rather than the existing patchwork of money service and money transmitter licensure laws, and other, sometimes ambiguous or duplicative, existing regulatory regimes that could be applied to such activities among the various states. The motivation for developing the Uniform Act centred on a desire to provide legal certainty, which in turn would foster continued innovation and access to capital for businesses in the virtual currency space. The drafting process involved significant input from various industry, state and federal government participants, as well as practising lawyers and academics. The Uniform Act is now available and, to date, bills modelled on the Uniform Act have been introduced for consideration by legislatures in California, Oklahoma, Rhode Island, Nevada and Hawaii.²⁷⁵ Notably, Wyoming enacted a bill (known as SF0125), which went into effect on 1 July 2019, that governs activities relating to digital assets and was not modelled on the Uniform Act.²⁷⁶

ii Uniform Commercial Code

The Uniform Commercial Code (UCC) provides the often-unnoticed plumbing for a broad range of commercial transactions and property rights. Where the UCC applies, parties benefit from clarity of law and special protections. Where the UCC does not apply, parties may unexpectedly find themselves without the benefit of legal rules they took for granted. Three key questions arise under the UCC with respect to virtual currencies: are virtual currencies subject to the regimes of UCC Article 3 (negotiable instruments), Article 4 (bank deposits and collections) or Article 4A (funds transfers); can virtual currencies serve as collateral under UCC Article 9; and can virtual currencies be credited as a security or financial asset to a securities account under UCC Article 8? Although we are not aware of any cases on point, we consider each question in turn below.

Applicability of UCC Articles 3, 4 and 4A

Virtual currencies as commonly structured today would not be subject to UCC Articles 3, 4 or 4A. Virtual currencies do not constitute a negotiable instrument, because they are not a

273 See I.R.S. Notice Q-9/A-9 (income from mining that is conducted as a trade or business is subject to self-employment taxes for non-employees engaged in mining).

274 Uniform Law, footnote 80.

275 See *id.*

276 Wyo. Stat. Ann. §§ 34-29-101 et seq. (2019).

paper asset.²⁷⁷ In addition, most virtual currencies would fail to meet the requirements for a negotiable instrument, because there is no promise or order to pay a fixed amount of money, as this presupposes a counterparty who is either the promisor or who would be subject to the order. When a party holds a virtual currency, there is no counterparty against which it has a claim (at least until it decides to transfer the virtual currency in return for value). Most virtual currencies also are not tied to a fixed amount of money (although there are purported exceptions in which the value of a virtual currency is supposedly fixed to an actual value of money in a fashion seemingly analogous to an exchange rate peg). Virtual currencies do not fit within Articles 4 or 4A owing to the absence of a bank from the scene. This leaves a significant gap in the commercial law plumbing applicable to virtual currencies. Virtual currency transactions operate without the typical UCC legal protections that strip adverse claims, provide for clear ownership or enforceability and establish transfer warranties. In 2017, the Uniform Law Commission considered – but did not fill – that gap when it created the Uniform Act.²⁷⁸

Use of virtual currencies as collateral

Like most types of personal property, virtual currencies can serve as collateral under UCC Article 9.²⁷⁹ Most virtual currencies will constitute a general or payment intangible under the UCC, and may also constitute proceeds of another form of collateral.²⁸⁰ As a general or payment intangible, a security interest in a virtual currency can be perfected solely by the filing of a financing statement.²⁸¹ Unfortunately for an interested secured party, however, the classification of a virtual currency as a general intangible or payment intangible means that the priority of security interests in such virtual currency is determined in order of the first to file or perfect; thus, any prior liens on the virtual currency – which may be difficult to identify or trace – could take priority over such secured party's perfected security interest.²⁸² The parts of the UCC plumbing that strip prior liens when transfers are made involving money or bank accounts would not apply to virtual currencies as structured today.²⁸³

277 Neil Cohen, 'The Calamitous Law of Notes', 68 *Ohio St. L. J.* 161, 182 (2007).

278 To date, no state has adopted the Uniform Act. Note that this section addresses the model version of the UCC. Some states, most notably Wyoming, have attempted to amend their versions of the UCC to accommodate virtual currencies.

279 See, e.g., Jeanne L Schroeder, 'Bitcoin and the Uniform Commercial Code', 24 *U. Miami Bus. L. Rev.* 1 (2016).

280 Current virtual currencies are likely not money under the UCC, although that could change. UCC Section 9-102(b)(24) defines money as a 'medium of exchange currently authorized or adopted by a domestic or foreign government. The term includes a monetary unit of account established by an intergovernmental organisation or by agreement between two or more countries.' To our knowledge, no governments or intergovernmental organisations have yet authorised or adopted a virtual currency as a medium of exchange or unit of account, so such definition is inapplicable to virtual currencies in their current vestige, though such classification could be called into question if a government or intergovernmental agency were to so authorise or adopt a virtual currency. It should be noted, however, some have argued that even if a virtual currency was adopted as a medium of exchange or unit of account, it still would not fit within the UCC definition of money. See, e.g., Schroeder, footnote 279, at 20.

281 U.C.C. § 9-310, 9-312(b) (Unif. Law Comm'n 2018).

282 *id.*, § 9-322.

283 See *id.* § 9-332.

Use of securities accounts

Because of the flexibility contained in UCC Article 8, virtual currencies can be credited to a securities account (as a financial asset) at a willing securities intermediary.²⁸⁴ In fact, the Uniform Law Commission has completed a companion act to the Uniform Act that would require that virtual currencies regulated by the Act be held in securities accounts at a securities intermediary. Whether this model will be readily adopted by those who hold virtual currencies on behalf of others remains to be seen, as the benefits of certainty resulting from securities account treatment come with an accompanying increase in responsibility and liability for the entity acting as securities intermediary. Of course, state law UCC characterisation as a security does not mean that a virtual currency would be characterised as a security for federal regulatory purposes, including under the federal securities laws.

X BANKRUPTCY

Below we provide an overview of certain bankruptcy-related issues that may arise relating to virtual currencies in a bankruptcy proceeding under the applicable United States law. As noted earlier, there is continuing legislation and regulation from federal agencies and states such that there is a complex web of concurrent and overlapping regulatory and legislative developments that must be considered, as such could be relevant and persuasive in the context of a bankruptcy proceeding. There have been less than a handful of bankruptcy cases that have only tenuously considered or involved issues relating to virtual currencies. As such, the development of bankruptcy law involving virtual currency issues is in its very nascent stages.

i Applicable bankruptcy regime

The first question that needs to be addressed is which bankruptcy regime would apply. This would depend on the type of entity that becomes insolvent. If the entity is a broker-dealer or an SEC-registered broker-dealer that owns or is in the business of dealing with virtual currencies, then Subchapter III of Chapter 7 of Title 11 of the United States Code (Bankruptcy Code), or perhaps even the Securities Investor Protection Act of 1970, may apply; however, neither of these currently seem likely, as we are not aware of any SEC-registered broker-dealers in the brokerage business involving virtual currencies. More likely, an entity will be eligible to commence bankruptcy proceedings either under Chapter 7 (the liquidation chapter) or Chapter 11 (the reorganisation chapter) of the Bankruptcy Code.²⁸⁵

ii Virtual currencies as property of the estate

Upon the commencement of a bankruptcy case, an estate is created under Section 541 of the Bankruptcy Code, and an automatic stay arises enjoining all creditors and entities from, among other things, taking any enforcement actions against the debtor or against property of the estate, any actions to obtain possession of property of the estate or any actions to create, perfect or enforce any lien against property of the estate. Virtual currencies owned by a debtor should be treated as part of the property of that debtor's estate. Section 541 of the

284 See id. § 8-102(a)(9)(iii), which includes 'any property that is held by a securities intermediary for another person in a securities account if the securities intermediary has expressly agreed with the other person that the property is to be treated as a financial asset under this Article'.

285 See 11 U.S.C. § 109 (2018).

Bankruptcy Code provides that the property of a debtor's estate includes 'all legal or equitable interests of the debtor in property as of the commencement of the case', and courts have held that the scope of property interests included in a debtor's estate is intended to be quite broad. Although federal law governs the extent to which a debtor's interest in property is part of that debtor's estate, state law governs the nature and existence of the debtor's right to such property. Accordingly, bankruptcy courts would look to the applicable non-bankruptcy law to determine the property interests of the debtor in any virtual currency owned by a debtor, which would form part of the debtor's estate and be afforded the protection of the automatic stay subject to certain exceptions that may apply, as discussed further below.

While Section 541 of the Bankruptcy Code should include any virtual currency owned by the debtor, given the anonymous nature of the ownership of virtual currencies (through private keys known only to the owner of the virtual currency) it may be difficult to obtain complete transparency regarding the whereabouts, amounts and transactions relating to the debtor's virtual currency without the full cooperation of the debtor. However, a debtor is required to provide a full and accurate accounting of its property and other assets as part of filling out and filing with the bankruptcy court, under penalty of perjury, its schedules and statements of financial affairs.²⁸⁶ A debtor should be incentivised to provide accurate and full accounting of its property, both because it would be subject to penalties and sanctions by the bankruptcy court, and may also be denied the benefit of a discharge of its debts and liabilities if it is found to have transferred, removed, destroyed, mutilated or concealed property of the debtor within one year before the commencement of the case or after the commencement of the case.²⁸⁷

However, creditors or other interested parties in a case involving a debtor with virtual currencies may consider taking action to assure full disclosure, such as conducting discovery against the debtor for information relating to its virtual currency transactions (including virtual currency addresses, public keys, private keys, exchanges used, digital wallet information, financial and other account statements and emails and other data that may be used to confirm virtual currency transactions), and subpoenaing major exchanges and payment merchants that could have additional information regarding a debtor's virtual currency transactions and holdings. The fact that virtual currencies, digital wallets and exchanges may be located and held in foreign jurisdiction may raise additional hurdles, and discovery may be a costly exercise; however, depending on the amount and value of the virtual currencies owned by the debtor, such costs may be worth the effort of pursuing such discovery.

iii Virtual currencies as cash collateral

As discussed in Section IX, a virtual currency may serve as collateral under UCC Article 9. Thus, it is possible that a debtor in a bankruptcy may own a virtual currency that is subject to a secured creditor's lien. There may be issues with the perfection of such security interest and the virtual currency may be subject to previously filed security interests; however, assuming the debtor's virtual currency is subject to a secured creditor's validly perfected lien, then such virtual currency may constitute cash collateral under the Bankruptcy Code. Under Section 363 of the Bankruptcy Code, cash collateral is defined as 'cash, negotiable instruments, documents of title, securities, deposit accounts, or other cash equivalents whenever acquired in which the estate and an entity other than the estate have an interest and includes proceeds'.

286 See id. § 521; Bankr. Rule 1007.

287 See 11 U.S.C. §§ 521, 523 (2018); Bankr. Rule 1007.

Section 363 further provides that a debtor ‘may not use, sell or lease cash collateral’ unless the relevant secured creditor consents or the court, after notice and a hearing, authorises such use of such cash collateral, typically by providing such secured creditor with adequate protection. Even if the virtual currency is not considered cash collateral, a secured creditor with a valid security interest in the virtual currency may seek similar adequate protection to protect its collateral from the debtor’s use, sale or lease of such property.²⁸⁸ Adequate protection typically is provided in the form of a cash payment, periodic cash payments or additional or replacement liens in order to protect the secured creditor against the diminution of value of the collateral from the debtor’s use of such property rather than the return of such property to the secured creditor.²⁸⁹ Accordingly, a secured creditor would have some protections from the debtor’s use of a virtual currency subject to its liens; however, given the volatility in value of virtual currencies, such protection may not be adequate during a bankruptcy case if the value of the virtual currency decreases.

iv Valuation issues and obtaining highest value

The volatility of the value or price of virtual currency owned by a debtor also raises concerns as to how the debtor should maximise the value of its virtual currency, given that any decrease in value would impair the debtor’s ability to satisfy unsecured creditors’ claims or require additional collateral to protect secured creditors. Accordingly, if a debtor uses its virtual currency as a form of payment or merely holds it as an asset, it may behove the debtor and the creditors of the debtor to convert such virtual currency to cash through a methodology that maximises its value. Depending on the circumstances, that may dictate a prompt sale or a more systematic sale that better preserves its value and captures increases in value (if any). However, if the virtual currency is instrumental to the carrying out of the debtor’s business function or the value of the business, or any restructuring depends on the retention and continued use of its virtual currency, then it may be more appropriate (albeit risky, if there is a significant decrease) for the debtor to retain and use its virtual currency in its business either with the court’s permission or, if appropriate and within the applicable bankruptcy case law, in the ordinary course of its business.

v Treatment of certain contracts involving virtual currencies

Different provisions of the Bankruptcy Code may apply depending on the nature and type of contract involving a virtual currency. The only case to date dealing with a contract involving a virtual currency is *In re CLI Holdings, Inc*²⁹⁰ (*CLI Holdings*). In *CLI Holdings*, the debtor, an affiliate of CoinLab, Inc, doing business as Alydian, was a Bitcoin miner using rigs or supercomputers to mine Bitcoins. The debtor entered into several Bitcoin service agreements whereby Alydian agreed to use commercially reasonable efforts to use supercomputers to mine for a specified number of Bitcoins for a customer in exchange for an upfront payment. Alydian determined that it was unable to mine sufficient Bitcoins to perform all of the service agreements because the costs of deploying the supercomputers exceeded the value of the Bitcoins mined. It therefore sought to reject the burdensome contracts pursuant to Section 365 of the Bankruptcy Code, which allows a debtor to reject executory contracts

288 See 11 U.S.C. § 363(e) (2018).

289 See id. § 361.

290 Case No. 13-19746 (W.D. Wash. 2013).

(i.e., contracts where performance remains due and owing from both parties to the contract). Several of the customers and counterparties to these Bitcoin service agreements filed objections to the debtor's motion to reject the contract on the grounds that the contract was not executory since they had fully performed their end of the contract and had no remaining obligations. The court denied the debtor's motion to reject the service agreements, finding that the contracts were not executory in line with analogous cases where the only remaining obligation under the contract is to receive the agreed product. Of further interest, the debtor in *CLI Holdings* subsequently moved to sell its mining rigs on an expedited basis through a Section 363 sale in the bankruptcy case. The bankruptcy court also denied its 363 sale motion, expressing several concerns regarding the ownership of the rigs, the accuracy of the debtor's financial statements and the lack of transparency, which the court observed could cause her to appoint a trustee or dismiss the case, allowing the parties to continue litigation that had been pending but stayed in New York State and federal courts. This further underscores the need for accurate schedules and financial statements and transparency in a bankruptcy case involving virtual currencies.

vi Potential safe harbour contracts – currencies, commodities and securities

Other contracts that may be involved in a bankruptcy case involving virtual currencies may provide special protections to counterparties, depending on the determination of whether the virtual currency at issue is a currency, a security or a commodity. As noted previously, different federal regulators, state legislators and courts have given conflicting views on whether virtual currencies are currencies, securities or commodities, and such determination may depend on the specific facts and circumstances involving the virtual currency and its use. A transaction involving currency could be considered a swap agreement under the Bankruptcy Code, given that the definition of swap agreement includes a currency swap, option, future or forward agreement.²⁹¹ Similarly, if the virtual currency is considered a security, a transaction involving the 'purchase, sale or loan' of such virtual currency could meet the definition of a securities contract under the Bankruptcy Code.²⁹² If the virtual currency is considered a commodity, there is a higher hurdle to meet the requirements for a forward contract, which requires that the 'purchase, sale or transfer of a commodity' has a 'maturity date more than two days after the date the contract is entered into'.

If a transaction or agreement involving a virtual currency satisfies the requirements of any of these safe-harboured financial contracts (i.e., a swap agreement, securities contract or commodity contract), then the non-debtor counterparty would be afforded certain rights. Such rights include the ability to terminate, accelerate or liquidate the contracts and foreclose on any collateral held by the non-debtor counterparty, and to exercise rights of netting or set-off, notwithstanding the automatic stay that would typically enjoin non-debtor counterparties from taking such enforcement actions.

Another favourable safe harbour protection that could be available if contracts for virtual currencies are determined to satisfy the definitions of a swap agreement or forward agreement is that the Bankruptcy Code prohibits a debtor from avoiding transfers that would otherwise be a preference or fraudulent transfer (other than actual fraud). Thus, non-debtor counterparties would be protected from having virtual currencies or payments or

291 See 11 U.S.C. § 101(53B) (2018).

292 See *id.* § 741(7).

other transfers in connection with a swap agreement or forward contract made prior to the commencement of the bankruptcy case from being clawed back or avoided and required to be turned over to the debtor.

To be clear, there have been no bankruptcy court decisions with regard to these safe harbour protections in connection with any virtual currencies to date, and as such, the treatment or availability of these protections remain unclear. In addition, although these safe-harboured contract provisions were not legislated with virtual currencies in mind, the definitions of a swap agreement and a forward contract were drafted to include contracts regarding swaps or commodities that in the future become the subject of recurrent dealings in the swap or other derivative markets or the forward contract trade.

vii Avoidance actions

Another area in which virtual currencies and their value will be of significant importance in a bankruptcy case is in the debtor's ability to recover a virtual currency or the value of the virtual currency as an avoidable transfer (as preferences or fraudulent transfers). For the purposes of this overview, an assumption is made that transfers of virtual currencies that satisfy the requirements of a voidable preference or fraudulent transfer can be voided by a debtor pursuant to Sections 547 and 548 of the Bankruptcy Code. There may be difficulties in identifying transfers of virtual currencies and, more importantly, likely greater difficulty identifying the transferees of such transfers, but here we highlight the issue of whether a court would allow the debtor to recover the virtual currency or the value of the virtual currency under Section 550 of the Bankruptcy Code. Section 550 allows the debtor to 'recover, for the benefit of the estate, the property transferred, or, if the court so orders, the value of such property'. The issue with virtual currencies is whether they would be treated in a bankruptcy case as currency or property. If a virtual currency is treated as currency, then the debtor may only be able to recover the value of the transferred property and may not benefit from any appreciation of the virtual currency. However, a court may take the view that the appreciation of a virtual currency should be recoverable by the estate, and thereby allow the recovery of the virtual currency, which would include any appreciation thereof. The latter approach is in line with Section 550's goal of 'putting the estate back where it would have been but for the transfer'.²⁹³ This approach is also in line with the treatment of virtual currencies as property or a commodity rather than a currency, which seems to be more consistent with the current regulatory trends for the treatment of virtual currencies.

One bankruptcy court was faced with this issue when a liquidating trustee sought to recover Bitcoins or their present value, which had appreciated from the time of transfer. The bankruptcy court ultimately did not decide whether the Bitcoins were currency or a commodity, but found instead that Bitcoins were not US dollars, leaving for a subsequent determination whether it would allow the recovery of the virtual currency or the value of the virtual currency.²⁹⁴ Given the CFTC's stance that a virtual currency is a commodity, it may be that courts allow the recovery of virtual currencies, including any appreciation thereon.

293 See *Collier on Bankruptcy* ¶ 550.02[3][a].

294 See *Kasolas v. Lowe (In re Hashfast Techs LLC)*, Adv. No. 15-3011 (Bankr. N.D. Cal.).

viii Recognition of foreign proceedings

As many virtual currency exchanges and entities doing business with virtual currencies may not be located or have their primary place of business within the jurisdiction of the United States, related bankruptcy activity may occur outside the United States; however, such foreign bankruptcy proceedings may benefit from the assistance of the United States bankruptcy courts through recognition proceedings under Chapter 15 of the Bankruptcy Code. Such was the case with the bankruptcy proceedings of MtGox Co Ltd in Tokyo, Japan, which sought and obtained recognition of the Japanese bankruptcy proceedings as foreign main proceedings through Chapter 15 of the Bankruptcy Code. Recognition of its Tokyo bankruptcy proceedings provided much-needed relief in the United States, including a stay that enjoined several lawsuits and allowed the Japanese foreign representative full and unfettered access to the US courts. The recognition order expressly provided the foreign representative with the ‘right and power to examine witnesses, take evidence or deliver information concerning the [d]ebtor’s assets, affairs, rights, obligations or liabilities’; and ‘entrusted [the foreign representative] with the administration and realisation of all of the [d]ebtor’s assets within the territorial jurisdiction of the United States’.²⁹⁵ Thus, recognition by US bankruptcy courts of foreign bankruptcy proceedings involving virtual currencies may assist foreign debtors to identify and recover their property for the benefit of their creditors.

XI LOOKING AHEAD

The US regulatory environment applicable to virtual currencies and other digital assets is highly complex. US federal and state lawmakers and regulators are grappling with how to fit these new asset classes into existing legal and regulatory regimes, and whether to develop new law, rules or guidance to address the unique aspects of digital assets (and the unique issues they raise). If the authors had to characterise the overall US regulatory approach, they would say that most US regulators are educating themselves about blockchain technology and the evolving digital asset landscape. In some cases, regulators, and notably the CFTC, have attempted to protect the public while not taking aggressive actions that could stifle innovation in this area. However, notwithstanding that the CFTC and the SEC have appointed staff members to work with digital asset sponsors and issuers to understand their products and trading platforms, the agencies have brought several enforcement actions to protect the public from fraud and registration abuses. While it is impossible to predict with any certainty the future direction of virtual currency regulation in the United States, it does appear that US regulators recognise that virtual currencies are here to stay. Innovators in the virtual currency space would be well-advised to review this chapter carefully, engage actively with experienced US counsel and follow closely regulatory developments in this area. Failure to fully comply with applicable US regulatory regimes may expose market participants to an unacceptable level of legal, regulatory and reputational risk.

295 See *In re MtGox Co, Ltd*, Case No. 14-31229, D.I. 151 (Bankr. N.D. Tex. June 18, 2014).

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