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Creating and Using Cryptoassets. Regulatory Implications

Carol R. Goforth

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By

Carol R. Goforth*

Outline

Introduction

This is the second of three papers in a series. The first paper, entitled "Blockchain and Bitcoin Basics: Applicability to Agriculture," was designed to introduce readers to the nature of blockchain and cryptoassets. This paper will look at practical and legal issues in connection with the potential creation and/or use of cryptoassets, including a review of how they are regulated (with a particular focus on U.S. law).[1] The third paper will examine some of the current blockchain initiatives and operations focused on agriculture, with the goal of introducing readers to the range of current opportunities and options.

Following this introduction, the second section of this paper will consider the basic issues in deciding to create a new cryptoasset. This will involve a look at practical considerations rather than legal issues that may be associated with a decision to issue a new form of cryptoasset. The third section will look at whether the Securities and Exchange Commissions (the SEC) is likely to treat a particular cryptoasset as a security, and in very general terms what that means. Regardless of whether the asset is a security, a business associated with it may be regulated as a money services business or otherwise be required to comply with the Bank Secrecy Act (the BSA). The fourth section will therefore look at whether the Financial Crimes Enforcement Network (FinCEN) will claim jurisdiction over the issuer of the cryptoasset or other businesses associated with it. Following that, the fifth section provides a very general overview of tax considerations relevant to cryptoassets. The sixth section will introduce other potential regulators that

* Carol Goforth is a University Professor and the Clayton N. Little Professor of Law at the University of Arkansas (Fayetteville) School of Law. She has decades of experience with corporate, securities and business law issues in the U.S., and has recently published a number of articles and blog posts dealing with the regulation of cryptoassets. She is a frequent expert commentator for CoinTelegraph and serves as an advisor to Honeycomb Digital Investments. She is also the author of Regulation of Cryptotransactions (West Academic, 2020).

[1] As is true for all three papers, the footnotes primarily provide links to additional sources of information that is more detailed or technical than the textual discussion.

businesses creating or using cryptoassets may need to consider. The seventh section will explain why private blockchain use is likely to be more useful to most agribusinesses, and this will be followed by a short conclusion and introduction to the third paper in the series.

Creating a new Cryptoasset: What does this involve?

One option that might be considered by agribusinesses is the possibility of creating a new cryptoassset. If the recent past has demonstrated anything it is that there is the potential for raising a lot of money invested in cryptoassets.[2] One report suggests that as of May 2021, over $3.2 billion has been raised from sale of cryptoassets to investors, with much of the money funding projects and start-up ventures.[3] This is not actually an easy process to do well, despite the lure of money.

The first challenge is deciding on what purpose the cryptoasset should fulfill. There are plenty of cryptoassets designed to serve as currency substitutes, so there must generally be some other functionality or utility in mind to justify the effort entailed in creating a new cryptoasset. For example, a cryptoasset could be designed to prove the right to vote in a cooperative or other agribusiness, or it could represent a share of agricultural commodities, or it could serve any number of other functions.

The introductory paper in this series did not talk about the mechanics of how a cryptoasset with a specific utility is created, but it relies on programming known as "smart contracts." A smart contract is a self-executing set of alternatives directly written into lines of code that exists across a distributed, decentralized blockchain network.[4] Because the code operates automatically, it controls the execution of operations, and transactions thereby recorded are both trackable and irreversible. As one simple example, a developer can create a smart contract by writing computer code that enables the owner of the underlying asset to prove entitlement to vote yes or no on certain proposals. The smart contract is then pushed onto the Ethereum (or other) network, which then enforces the contract, only allowing owners to vote and accurately recording those votes in an indelible record.

A programmer can rely on open-source materials to create a new cryptoasset hosted on an existing blockchain platform. Ethereum is most often used for this purpose,[5] although there are other options as

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[2] As of May 5, 2021, the total market capitalization of all cryptoassets exceeded $2.35 trillion. *Today's Cryptocurrency Prices by Market Cap*, CoinMarketCap.com (page from May 5, 2021 archived at https://perma.cc/B7J6-3GMQ).

[3] *Everything You Need to Know About ICO in May 2021*, VPN Mentor (May 2021) (archived at https://perma.cc/VL8Q-6S58).

[4] A more detailed and technical description of smart contracts can be found at Stuart D. Little & Alex B. Lipton, *An Introduction to Smart Contracts and Their Potential and Inherent Limitations,* Harvard Law School Forum on Corp. Gov (May 26, 2018) (archived at https://perma.cc/ZZ49-ZPQ2).

[5] According to ICOWatchList's data, more than 82% of projects have chosen to issue new tokens on Etherereum. *Where to Issue ICO Tokens: Platforms Review*, CoinTelegraph (archived at https://perma.cc/UZ37-3DAV).

well.[6] Ethereum was specifically designed to facilitate the creation of smart contracts.[7] It introduced a Turin-Complete[8] scripting language (Solidity), allowing the underlying programming to do more than transfer ownership of assets between peers on the network.

In 2015, scripting standards known as ERC-20, which stands for Ethereum Request for Comment 20, were adopted. ERC-20 dictates a number of rules and actions for an Ethereum smart contract or cryptoasset[9] to follow as well as necessary steps for implementation.[10] Compliance with this standard means that the core functionality of each such asset is interoperable with each other as well as being compatible with services designed for such tokens. This use of the Ethereum network requires payment in Ether (the cryptoasset native to the Ethereum blockchain) to validate the transaction.[11]

The actual creation of such contracts requires the assistance of a computer programmer, and a decision of whether or not to actually use the Ethereum platform.[12] Although Ethereum is the most commonly used, the cost of running transactions and the risk of bugs or errors in the programming may also be problematic.[13]

After technical decisions are finished, there will still need to be decisions about how the token is to function. Will it be fully decentralized or will there be master nodes[14] or other means of partial

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[6] Other available blockchain platforms include Waves (Russian-based), NEO (a Chinese platform), NEM, and Stellar.

[7] Ethereum 101 ch. 6, "*How do Ethereum Contracts Work*," CoinDesk (updated Dec. 30, 2020) (archived at https://perma.cc/9TW4-K5N2) ("Ethereum, the world's second-largest cryptocurrency by market cap, was created in 2013 specifically for creating smart contracts. To date, it is the most popular platform for doing so.")

[8] Without becoming too technical, "Turing Complete" means that a machine system can solve any computational problem with enough time, memory, and sufficient instructions. This means that the Ethereum programming has the capability to implement future agreements, even those that have not yet been contemplated. *Turing Complete,* Binance Academy (archived at https://perma.cc/HZ89-5K7V).

[9] Because all of such assets are hosted on the Ethereum blockchain, they are generally referred to as tokens.

[10] *Token Standard*, Ethereum.org (archived at https://perma.cc/346F-93EQ). There are other standards as well, but ERC-20 continues to be the most prevalent. For a list of other standards, see *Ethereum Improvement Proposals,* Ethereum.org (archived at https://perma.cc/QQD8-97X6).

[11] Ether paid for such validation services is often referred to as "gas," short for gasoline. It is the price to keep the transaction running. Alyssa Hertig, *What is the ERC-20 Ethereum Token Standard?* CoinDesk (updated Mar. 23, 2021) (archived at https://perma.cc/YBD4-WPUU).

[12] More detailed information about the functioning of smart contracts in Ethereum can be found at Sebastian Peyrott, *An Introduction to Ethereum and Smart Contracts: a Programmable Blockchain*, Autho Blog (Mar. 28, 2017) (archived at https://perma.cc/5A4D-FQYJ).

[13] For a list of such considerations, see Jitendra Naik, *What Makes A Language Suitable For Writing Smart Contracts*? Hackernoon (July 14, 2020) (archived at https://perma.cc/X2U3-RZW5).

[14] As explained in the first paper in this series, the original blockchain was for Bitcoin, and in it every computer (or node) had the ability to serve as a validator for potential blocks. Thus, this blockchain was truly peer-to-peer and fully decentralized. Later blockchains, however, sometimes chose to limit the number of nodes that had power to validate transactions, sometimes have a single primary validator or sometimes having a limited number of participants with such power (the so-called master-nodes).

centralization? In order to verify transactions, will the system rely on proof of work,[15] proof of stake,[16] or other consensus protocol?[17] How will the system remedy errors or exploitable omissions in the programming?[18]

Finally, there will need to be plans in place with regard to how the asset is to be exchanged. Unless the plan is to prevent a purchaser from reselling the asset to any third party, it will probably be important to investigate where the cryptoasset might be listed for trading purposes. In the U.S., the largest and best known crypto exchange is Coinbase,[19] although there are many other options. In terms of 24-hour trading volume, there are many other larger crypto exchanges.[20] Choosing reliable exchanges for listing of

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[15] The proof-of-work (PoW) protocol, also explained in the first paper in this series, was used by Bitcoin and many early cryptoassets. It relies on computational power so that the miner (validator) that first solves a difficult computational problem is rewarded for the work in validating the block. As more and more resources have been devoted to solving the puzzles on the Bitcoin blockchain (because of the value of a single Bitcoin), this has led to considerable energy consumption and concomitant environmental issues. For a discussion of this consideration, see Kelly Derham, *Environmental Impacts of Cryptocurrency,* Sierra Club (Mar. 26, 2021) (archived at https://perma.cc/49PD-QDGE).

[16] To combat the environmental impact of PoW mining, some projects have developed alternatives. One alternative is the Proof of Stake (PoS) protocol. In a POS blockchain/network, instead of devoting high-powered computer resources to process transactions, users post or "stake" a percentage of their cryptoassets as "collateral" to help maintain the integrity of the network by validating transactions. For an additional explanation of the process, see Ameer Rosic, *Proof of Work vs Proof of Stake: Basic Mining Guide*, BlockGeeks (archived at https://perma.cc/WAW8-CLUM).

[17] PoW and PoS are the most popular consensus protocols at this time. For a list of other alternatives, see C. Lalithnarayan, *An Overview of Consensus Protocols in Blockchain*, Section.io (Jan. 28, 2021) (archived at https://perma.cc/5ZNU-JJL8).

[18] The consequences of weakness or error in a smart contract's coding can be profound. One of the earliest and most famous smart contracts was associated the The DAO, which issued a token designed to allow participants to vote on funding of other crypto-based projects. A weakness in the code allowed a hacker to exploit a particular function, and the only way to undo the illicit transactions required a vote that essentially split the community at the time and also resulted in the termination of the venture. For a further explanation of The DAO hack, see Robbie Morrison et al, *The DAO Controversy: The Case for a New Species of Corporate Governance*? Frontiers in Blockchain (May 27, 2020) (archived at https://perma.cc/PR2X-R5PZ).
Unfortunately, the mere fact that errors can create huge issues does not mean they are easy to repair. "At present, there is no simple path to amend a smart contract …. Indeed, given that blockchains are immutable, modifying a smart contract is far more complicated than modifying standard software code that does not reside on a blockchain." Stuart D. Little & Alex B. Lipton, *An Introduction to Smart Contracts and Their Potential and Inherent Limitations*, Harvard Law School Forum on Corp. Gov (May 26, 2018) (archived at https://perma.cc/ZZ49-ZPQ2).

[19] Luke Conway, *Best Crypto Exchanges*, Investopedia (updated Ap. 9 ,2021) (archived https://perma.cc/FRF6-W8R7).

[20] Raynor de Best, The 100 biggest cryptocurrency exchanges in the world on April 13, 2021, Statistic (archived at https://perma.cc/WE55-8D33). By this measure, the largest exchanges included Venus, XT, Binance, Upbit, ZG.com and Huobi Global.

cryptoassets can be critically important as demonstrated by the recent closing and disappearance of the Turkish exchange, Thodex, reportedly costing customers hundreds of millions of dollars worth of crypto.[21]

Will a new Cryptoasset be a Security?

A major concern that will need to be addressed by any person considering the creation and potential sale or distribution of a new cryptoasset is whether the Securities and Exchange Commission (the SEC) will treat the asset as a security. The federal securities laws make it illegal to offer or sell a security unless it is first registered or exempt from registration.[22] Registration is incredibly complicated and expensive,[23] and even exemptions are difficult and limiting, typically requiring the assistance of experienced securities counsel.[24]

The SEC's initial announcement with regard to when a given cryptoasset should be treated as a security came in 2017, in connection with an offering of DAO tokens.[25] As that report makes clear, the SEC has concluded that cryptoassets should be analyzed as investment contracts under a test developed by the Supreme Court in 1946 in *SEC v. W.J. Howey Co*.[26] In general terms, the SEC considers a cryptoasset to be a security if there is: (1) an investment of something of value; (2) in a common enterprise; (3) in which the purchasers are led to expect profits; (4) from the essential managerial or entrepreneurial efforts of others. This is known as the *Howey* test.

In most cases, a developer who seeks to sell cryptoassets is in fact seeking an investment (usually of fiat currency of some other cryptoasset), and the fortunes of all owners are generally tied together, creating a common enterprise. If the reason for the purchase is the expectation of profits that are dependent on the developer's involvement or efforts, the SEC is likely to consider the asset to be a security. The SEC has "clarified" the application of this test in the context of cryptoassets, but the current explanation of whether a cryptoasset is a security does not simplify matters and instead offers thirty-eight distinct sub-

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21 Sandali Handagama & Jamie Crawley, *Turkish Crypto Exchange Goes Offline, CEO Missing*, CoinDesk (archived at https://perma.cc/5F9S-CFNU).

22 This requirement is included as section 5 of the Securities Act of 1933 (codified at 15 U.S. Code § 77e).

23 Consider the expenses associated with the initial registration process for traditional businesses. One recent survey found that costs of an initial registered public offering ranges between $9.5 and $13 million. PWC, Considering an IPA? First, understand the costs (archived at https://perma.cc/LQ9Q-HT5D). Costs may not be the same for a registered offering of cryptoassets, but they will certainly not be insignificant.

24 "If you are considering a securities offering you should always consult with an attorney. The exemptions are nuanced, and the consequences of non-compliance can be severe ranging from returning all the money to the investors to a criminal investigation." Tonya Price, *Private Placement Exemptions: The Basics*, Jason Wiener PC (Apr. 2, 2019) (archived at https://perma.cc/4WKY-Q6QE).

25 SEC, *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO, '*34 ACT RELEASE NO. 81207 (July 25, 2017) (archived at https://perma.cc/F862-YS5V).

26 328 U.S. 293 (1946).

considerations as well as the explicit possibility that an asset may change its status as something other than a security into a security at a later date or vice versa.[27]

The requirements of registration and the limits of available exemptions are far beyond the scope of this paper, but it should be understood that if a cryptoasset is a security there will be very significant expenses and risks associated with its sale.[28] Thus, in most cases substantial efforts will need to be made (typically with the assistance of counsel) to see that a proposed cryptoasset will not fall within the *Howey* test. While this paper is not designed as legal advice and should not be relied on as such, some characteristics are more likely to result in a cryptoasset falling outside the *Howey* test. For example, issuing a functional cryptoasset that cannot be resold except back to the issuer or can only be redeemed for a particular asset or utilized for a specific purpose, and is issued at a volume appropriate to such functionality, is likely to have the best chance of being deemed not to involve the sale a security. In fact, the SEC has issued two no-action letters (a document indicating that based on the facts as told to the SEC, the commission promises not to initiate any enforcement proceedings) based on similar facts.[29]

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[27] SEC, Public Statement, *Framework for "Investment Contract" Analysis of Digital Assets* (modified Ap. 3, 2019) (archived at https://perma.cc/J4KQ-HW52). This framework was issued on April 3, 2019 by FinHub (an SEC portal designed to engage with companies using blockchain and other innovative technologies).

[28] Consider three recent examples. In 2018, the global messaging service Telegram began raising capital to develop a cryptoasset to be called Grams, relying on an exemption from registration under the U.S. securities laws. The company raised approximately $1.7 billion from wealthy, sophisticated investors in this process. More than a year later, just before the company was about to issue the cryptoasset, the SEC intervened. The SEC eventually won a global injunction against issuing the cryptoasset in March 2020, compelling the return of all unspent proceeds of the original offering as well as payment of a fine of $18.5 million to the SEC. Order, SEC v. Telegram Group, Inc., No. 19 Civ. 9439 (PKC) (S.D.N.Y., March 24, 2020) (archived at https://perma.cc/4WWK-LKBX). See also SEC Press Release, *Telegram to Return $1.2 Billion to Investors and Pay $18.5 Million Penalty to Settle SEC Charges,* Rel. 2020-146 (June 26, 2020) (https://www.sec.gov/news/press-release/2020-146).

An even earlier offering by another social media giant involved Kik Interactive's offering of Kin tokens starting in 2017 that had raised more than $100 million. The SEC in this case brought suit after the tokens were issued, but still convinced the court that the sale had involved the illegal distribution of securities. The court's order on the SEC's motion for summary judgment led to an agreed order imposing a fine of $5,000,000 on the company. Opinion and Order on Motions for Summary Judgment, SEC v. Kik Interactive, No. 19 Civ. 5244 (S.D.N.Y., Sept. 30, 2020) (archived at https://perma.cc/43WJ-K7JA) and Final Judgment as to Defendant Kik Interactive Inc., SEC v. Kik Interactive Inc., No. 19 Civ. 5244 (S.D.N.Y., Oct. 21, 2020) (archived at https://perma.cc/G5S8-5RWV).

The most recent, and as of this writing still on-going SEC action involves a crypto company named Ripple and its XRP token. Ripple began selling its token in 2013, but it was not until late December 2020 that the SEC acted, initiating a lawsuit arguing that the company had been illegally selling securities for the prior seven years. SEC v. Ripple, Complaint, 20 Civ. 10832 (S.D.N.Y., filed Dec. 22, 2020) (archived at https://perma.cc/C3GK-ZXY5). This complaint also names the current and a former CEO.

[29] The first no action letter was issued to a company called TurnKey Jet, which indicated that tokens would be sold at a fixed price of one dollar, could only be used to obtain air charter services, and could not be transferred to anyone other than back to the company at a discount. TurnKey Jet, Inc., SEC No Action Letter (Ap. 3, 2019) (archived at https://perma.cc/E399-FSR3). The second letter involved tokens designed to be used on a game platform and were not designed to be resold or transferred outside of the company's own platform; they were not even designed to be traded between players. Pocketful of Quarters, Inc., SEC No-Action Letter (July 25, 2019) (archived at

Regulation under the Bank Secrecy Act

In addition to the requirements that may be imposed by the SEC, another regulator that has been extremely active in the crypto-space has been the Financial Crimes Enforcement Network (FinCEN), a Bureau of the Department of the Treasury. In 2013, FInCEN issued Guidance on the application of various Bank Secrecy Act (BSA)[30] regulations to "persons administering, exchanging or using virtual currencies."[31] In this Guidance, FinCEN defined "virtual currency" as "a medium of exchange that operates like a currency in some environments," although lacking all the attributes of real currency (such as being legal tender).[32] Cryptoassets that are convertible into fiat (government-backed) currencies, either directly or indirectly, and that can be used as a medium of exchange, store of value or unit of account generally fit into this category.

According to FinCEN's 2013 guidance, persons involved in the business of using, distributing, exchanging, accepting, or transmitting cryptoassets "for another person"[33] may be characterized and regulated as "money services businesses" (MSBs). This includes a wide range of activities, including those that count as "money transmission." For example, a "seller" of the cryptoasset, such as a company that creates one, could be an MSB if it accepts payment from a purchaser, and then issues the cryptoasset to an account with a broker/dealer/administrator such as an exchange or wallet service on behalf of the purchaser. In addition, any person acting to facilitate the acquisition of a cryptoasset (in the role of a broker or dealer) is involved in money transmission and therefore qualifies as an MSB if it: (1) permits a third party to fund a customer's account; (2) transfers value from one customer to another; or (3) closes out a customer's account with the proceeds going to a third party. Alternatively, a business that acts as a central depository (such as a wallet service) will be a money transmitter if it allows transfers of value between persons.

An MSB is required to register with FinCEN, adopt risk-based Anti-Money Laundering (AML) procedures, and comply with record-keeping and reporting requirements imposed by the BSA.[34] FinCEN has specifically

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https://perma.cc/6GTP-7Z7C). While designing a cryptoasset along these lines might prevent the securities laws from applying, they may also limit the usefulness of this as a fundraising mechanism.

[30] The Financial Recordkeeping and Reporting of Currency and Foreign Transactions Act of 1970 is generally referred to as the Bank Secrecy Act (BSA). It is codified at 31 U.S. Code §§ 5311 et seq.

[31] Dept. of the Treasury, FinCEN Guidance, *Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies,* FIN–2013–G001 (Mar. 18, 2013) (archived at https://perma.cc/DG3B-LNS7) (referred to in this paper as the "2013 guidance.")

[32] *Id.*

[33] Under the 2013 Guidance, persons acquiring cryptoassets (referred to as virtual currencies by FinCEN) for their own account, are not to be regarded as money services businesses. A subsequent clarification from FinCEN concluded that miners who acquire cryptoassets for their own purposes are not, solely because of such acquisition, MSBs. FinCEN, *Application of FinCEN's Regulations to Virtual Currency Mining Operations*, FIN–2014–R001 (Jan. 30, 2014) (archived at https://perma.cc/9H48-NZEE.)

[34] A general discussion of an MSB's obligations can be found at IRS, *Money Services Business (MSB) Information Center* (archived at https://perma.cc/XCU2-NHAY). Note that while there is a requirement that some MSBs engage

noted that it does not matter if the activities leading to this characterization occur on a regular basis, as part of an organized business, or even if occurring primarily outside the United States.[35] The registration, record-keeping, and reporting requirements are substantial and burdensome, further complicating any decision to issue cryptoassets or to be involved with them.

Major Tax Considerations

Instead of issuing a new cryptoasset, an agribusiness might decide to use existing cryptoassets as payment for goods or services, or as a means of making payments, possibly to employees or independent contractors. Those are decisions that will have tax consequences for the business (and any recipient, if the business is using cryptoassets as a means of making payments). (It should also be noted that the sale of cryptoassets in an offering to investors may also have tax consequences, since the IRS classifies cryptoassets as property. Net income from the sale of property must be reported and is immediately taxable. Contrast this with funds raised from the sale of stock in a business, which is not considered taxable income and instead is classified as capital.)

Because of the significant tax implications, the first task for anyone wishing to accept or make payments in cryptoassets is accurate record-keeping, which involves more than simply making a note of the time and form of payment. For payments or receipts in anything other than legal tender (referred to as fiat currency or simply fiat in most cryptoasset commentary), it is also necessary to keep track of the value of the asset being exchanged.

The simplest way of complying with this requirement is to use a service that converts cryptoassets into fiat. The fee can be as low at 1% in the U.S., and it can come with the side benefit of having the company deal with invoicing and record-keeping, as well as complying with and AML requirements under the BSA.[36] For the business, the tax consequences are simple: the fiat becomes regular business income. BitPay is an example of a business performing these kinds of services.[37]

If an agribusiness chooses not to use third-party payment services, it must choose a reasonable and consistent means of recording fair market value of the cryptoasset at the time of the transaction. If the transfer occurs over an exchange, the value is determined by the cryptocurrency exchange. However, if

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in more than $1000 in transactions in a single day, in the case of money transmitters (a specific class of MSB particularly applicable to crypto-businesses) there is no minimum activity level required.

[35] Footnote 4 of the 2013 Guidance cited the *Bank Secrecy Act Regulations – Definitions and Other Regulations Relating to Money Services Businesses*, 76 FR 43585 (July 21, 2011) (the "MSB Rule"). This rules defines an MSB as "a person wherever located doing business, whether or not on a regular basis or as an organized or licensed business concern, wholly or in substantial part within the United States, in one or more of the capacities listed in paragraphs (ff)(1) through (ff)(7) of this section." 31 CFR § 1010.100(ff).

[36] Or Lokay Cohen, *Bitcoin for Business: The Tax Guide*, CoinTelegraph (Mar. 25, 2020) (archived at https://perma.cc/Z456-955S).

[37] As of May 6, 2021, BitPay's advertised fees for business clients are only 1%. See BitPay, Business (archived at https://perma.cc/2XXN-9BZE).

there is a peer-to-peer or other transaction not facilitated by an exchange, the value is to be calculated as of the date and time at which the transaction is recorded on the blockchain. Expenses associated with any such transaction, including the cost in dollars of any fees, brokerage commissions, and other acquisition costs are deductible from the trading value of the asset in question. It is important to know that the Internal Revenue Code and regulations place the burden of record keeping on taxpayers, who will need to document any positions taken on tax returns.

If the business is making payments to creditors, employees, or others with cryptoassets that it holds, it will need to keep track of the difference in value between the initial acquisition and the eventual disposition of the asset. If the cryptoasset has gone up in value between the time that it was acquired and when it is paid out (or converted to fiat currency if that happens first), capital gains tax will be owed. In most cases in the U.S., if the crypto-to-fiat or crypto acquisition to crypto disposition transaction occurs within 12 months, the amount is likely to be short term capital gains. For cryptoassets held for more than one year before conversion or disposition, any profit is likely to be long-term capital gains.

New IRS guidance does enable a user to engage in some planning as to taxes, but only to a limited extent. According to the IRS "[y]ou may choose which units of virtual currency are deemed to be sold, exchanged, or otherwise disposed of if you can specifically identify which unit or units of virtual currency are involved in the transaction and substantiate your basis in those units."[38] This means that the taxpayer might need to have multiple wallets or addresses or rely on different exchanges or different forms of cryptoasset in order to fully distinguish between one cryptoasset and another. The benefit is that the taxpayer could choose which assets to match with current actions, either to be sure to utilize any losses, or to maximize or minimize taxable gain depending on circumstnces.

In addition to tax consequences to an agribusiness making payments in crypto, if the business is paying wages in cryptoassets it will still need to report the dollar amount of all of such amounts on any employees' W-2 forms. Cryptoasset payments are also subject to federal income tax withholding and payroll taxes, based on the then-current market value of payments. In addition, the employee will also have tax consequences. For payments made to independent contractors, the recipient will need to keep records and should expect to report the value received as income. The payer must generally issue 1099-MISC forms to the independent contractors, but the recipient will be responsible for taxes that are due, including the full amount of any employment taxes. Valuation of the cryptoasset is generally made as of the date ownership is transferred on the blockchain.

State and local taxes may also be an issue for agribusinesses issuing or using cryptoassets. The first question which states have jurisdiction to impose taxes on various transactions, and unfortunately the answer is not always clear. In very general terms, in order for a state to impose taxes, it must prove the existence of a sufficient nexus between the taxpayer and the state. This would be met if the business is

[38] IRS, Frequently Asked Questions on Virtual Currency Transactions, A39 (archived at https://perma.cc/7F4C-G86H).

domiciled in the state, but other businesses that lack sufficient physical presence or business activity within a given state will not be subject to that state's taxing authority.

If the business has property, employees, or even agents and independent contractors located in state, it may be subject to tax there. In the digital context, a business that has established relationships with miners, validators, and/or nodes located in-state may have created sufficient contacts if such relationships amount to appointment of an agent or an independent contractor. However, physical presence is no longer a requirement. In 2018, the Supreme Court overruled prior law, holding that "[p]hysical presence is not necessary to create a substantial nexus" sufficient to allow a state to impose and collect taxes.[39] Although the case dealt with sales and use taxes, its rationale should apply to income taxes as well. The issue of exactly what contacts sufficient contact with a state has not been completely settled.

In 2002, the Multistate Tax Commission (MTC), which describes itself in part as an "intergovernmental state tax agency whose mission is to promote uniform and consistent tax policy and administration among the states,"[40] recommended that states adopt a specific factor nexus test.[41] For states that adopt this approach, taxpayers are deemed to have a "substantial nexus" in this state if they have sufficient in-state property, payroll, or sales. The standards proposed by the MTC suggest that a state should have jurisdiction if the taxpayer has: $50,000 of property; $50,000 of payroll; $500,000 of sales; or 25 percent of total property, payroll, or sales in-state. While there is some variation in the limits imposed in different states, most states using this approach have adopted a similar or even identical set of standards.

This discussion does not mean that every state will be able to impose taxes on business using cryptoassets, merely that state tax law may need to be considered in order to comply with all applicable regulations and obligations.

Other Regulators

There are other regulators involved with businesses that use or issue cryptoassets. Most of these, at least on the federal level, tend to focus on fraud or deceptive misconduct, or participation in criminal activity. For example, the Federal Trade Commission (FTC) has been the primary agency handling complaints of consumer fraud in fintech. Traditionally, the FTC relied on administrative proceedings, but recently the FTC had begun initiating legal proceedings in federal court under section 13(b) of the FTC Act.[42] However, on April 22, 2021, the Supreme Court held that provision does not authorize equitable monetary relief, limiting the agency to injunctive relief, and authorizing monetary recovery only following the completion

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39 South Dakota v. Wayfair, Inc., 585 U.S. __, 138 S. Ct. 2080 (2018).

40 MTC, *About Us* (archived at https://perma.cc/3YRD-33VY).

41 MTC, *Factor Presence Nexus Standard for Business Activity Taxes*, (Oct. 17, 2002) (archived at https://perma.cc/289Z-M8A2).

42 Proskauer Rose LLP*, Could the FTC Pass to the Torch to the Consumer Financial Protection Bureau to Oversee the Fintech Industry?,* Lexicology.com (Feb 16 2021) (archived at https://perma.cc/4XEB-6PWG).

of traditional administrative proceedings.[43] This may make it more likely that other agencies will take a more active role, or it may result in an increased number of administrative proceedings.

Another federal agency that has asserted jurisdiction in this space is the Consumer Financial Protection Bureau (CFPB). The Consumer Financial Protection Act of 2010[44] explicitly gives the CFPB authority to seek a broad array of relief including restitution, disgorgement, as well as other forms of consumer redress. In 2014, the CFPB first began warning consumers about risks associated with Bitcoin.[45] While cryptoassets are clearly within the scope of the CFPB's authority, and it has been accepting complaints involving cryptoassets since 2014, this has not been a particular focus of Bureau activity. Pronouncements in early 2021 suggest the Bureau anticipates ramping up its consumer protection efforts, particularly against companies that have a pattern of failing to adequately respond to customer complaints,[46] and this could impact companies utilizing cryptoassets with poor consumer complaint resolution procedures.

Another federal agency involved in the crypto space is the Office of Foreign Assets Control (OFAC). OFAC is an office of the U.S. Department of the Treasury with responsibility for administering and enforcing sanctions against persons and nations involved in illegal activities, including terrorism and the international drug trade. OFAC has taken action against at least two digital asset companies for failing to respect U.S. sanctions against individuals or entities located in embargoed jurisdictions. In late 2020 the first of such actions resulted in a $98,380 settlement with BitGo, Inc. arising out of that company's failure to prevent persons in several nations associated with terrorist activity from using its crypto wallet services.[47] In early 2021, it released a $507,375 settlement agreement with BitPay, Inc. arising out of BitPay's failure to prevent its customers from interacting with users in sanctioned countries.[48] In both of

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[43] AMG Capital Management, LLC v. FTC (slip op. U.S. Ap. 22, 2021) (archived at https://perma.cc/82W5-GUHB).

[44] Codified at 12 U.S.C. §§ 5565.

[45] Consumer Finance, CFPB Warns Consumers About Bitcoin (Aug. 11, 2014) (archived at https://perma.cc/N3RZ-S7LT). The initial consumer advisory included warnings about unclear costs, volatility, hacking, scams, and companies that might not offer assistance or refunds for lost of stolen assets.

[46] Consumer protection is ramping up in crypto. Are you ready? BitAML (Feb. 22, 2021) (archived at https://bitaml.com/2021/02/22/cfpb-crypto/).

[47] Alan Cohn, et. al, *OFAC Announces First Ever Enforcement Action Targeting a Digital Asset Company,* Steptoe Blockchain Blog (Jan. 5, 2021) (archived at https://perma.cc/LQ2G-SC92). "On December 30, 2020, the US Department of the Treasury's Office of Foreign Assets control (OFAC) announced a $98,380 settlement with BitGo, Inc. (BitGo). This civil settlement, regarding apparent violations of multiple sanctions programs related to digital currency transactions, is the first published OFAC enforcement action against a business in the blockchain industry." "The apparent sanctions violations relate to 183 instances in which BitGo failed to prevent individuals and/or entities located in Crimea, Cuba, Iran, Sudan, and Syria from using its non-custodial secure digital wallet management service. All of these jurisdictions were subject to comprehensive embargoes under OFAC regulations during at least part of the time that the transactions occurred."

[48] Dept. of the Treas., *OFAC Enters Into $507,375 Settlement with BitPay, Inc. for Apparent Violations of Multiple Sanctions Programs Related to Digital Currency Transactions* (Feb. 18, 2021) (archived at https://perma.cc/Z6T5-F3AK). In this case, OFAC was concerned that BitPay had allowed users whose IP addresses indicated that the were likely located in sanctioned jurisdictions to transact business with BitPay's customers using the BitPay platform.

these instances the targeted company had reason to believe based on knowledge or notice of Internet Protocol (IP) addresses that traffic was being directed to persons in embargoed jurisdictions.

In addition to federal regulators, state regulators may also impose additional requirements on businesses involved in crypto transactions. These include state securities administrators, which may also treat the issuance and sale of a cryptoasset as a securities transaction, imposing additional requirements beyond those required by the SEC.[49] In addition, there are state money transmitter requirements that may apply if a business acts to transfer cryptoassets on behalf of third parties and therefore becomes a money transmitter under state regulations.[50] States impose different kinds of requirements than those mandated by FinCEN and the BSA.[51]

Some jurisdictions, notably New York, have also created specialized agencies for dealing with crypto businesses.[52] It may therefore be necessary to consult the laws of any states in which business is to be conducted before a business commits to creating, buying, selling, transferring, or holding cryptoassets, particularly if the latter activities are undertaken for clients. As one possible example of when this might occur, consider the possibility of an Agricultural cooperative holding, transferring, or converting cryptoassets for individual farmers who are the members of the cooperative.[53] Such activities will trigger a whole host of regulatory requirements, as the preceding materials should illustrate.

Private Blockchains as the Way to Go

It is definitely worth remembering that the creation of cryptocurrencies is not the only use of blockchain technology, or even the one that is most likely to be applicable to agribusiness. While Bitcoin and cryptocurrencies were the first use of blockchain technology, many businesses have adopted the technology for other purposes. Many of them utilize private rather than public blockchains.

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[49] Matthew Kohen & Justin Wales, *State Regulations on Virtual Currency and Blockchain Technologies* (Updated March 2021), JDSupra (Apr. 19, 2021) (archived at https://perma.cc/8R95-EF6M).

[50] *Id.*

[51] State money transmitter regulation typically focuses on financial obligations such as the maintenance of surety bonds. For a description of typical state money transmitter obligations (as well as federal requirements), see Marco Santori, *What is Money Transmission and Why Does it Matter?* CoinCenter (Apr. 7, 2015) (archived at https://perma.cc/N8SH-BDHD). Since that piece was written in 2015 a number of states have actually amended their state money transmission laws to specifically cover (or sometimes specifically exclude) cryptoassets.

[52] The New York State Department of Financial Services creates a unique regulatory framework for virtual currency businesses called "BitLicense." N.Y. Comp. Codes R. & Regs. Tit 23 § 200. These regulations require a business involved in cryptoassets to obtain a Bitlicense before doing business in New York. To obtain a license, the company must meet strict requirements including adopting, among other things, anti-money laundering/know-your-customer and cybersecurity programs.

[53] This is merely an illustrative example of how an agribusiness might find itself being subject to the myriad regulations described in this paper.

A public blockchain is one that can be joined by anyone. There are few if any restrictions on who can participate. In addition, anyone can view the record of prior transactions and can participate in the consensus process used to validate future transactions (assuming that they are willing to commit the resources necessary to do so). These are decentralized and peer-to-peer, as suggested in the original documentation announcing the initials plans for Bitcoin. In stark contrast to this, a private blockchain is generally owned and controlled by a single person or association. It will have specific requirements before anyone else can enter the platform, so only selected persons will have access to the network. In particular, the identity of these persons will generally be known to the owner of the blockchain. There may also be additional limits as to who has the power to validate transactions. Such networks may be centralized and depending on consensus protocols, nodes may not operate as peers.

To illustrate some of the potential of private blockchains, consider Walmart's utilization of blockchain technology. Their first use cases, initiated as proof of concept projects in October 2016 with the assistance of IBM, involved mangoes and Chinese pork, with the retail giant using blockchain technology to trace the origins of slices of mango and to track movement of pork in China.[54] The articulated concerns included limiting foodborne diseases, combating food fraud, preventing illegal production, and facilitating recalls, and the initial projects both improved traceability and transparency significantly.

The next step in the U.S. was to collaborate with IBM and the IBM Food Trust, involving food giants such as Nestle and Unilever. Today more than 300 suppliers and buyers have joined the network. In China, Walmart is still working with the Walmart China Blockchain Traceability Platform which was launched in 2019.

Although these platforms are private, and the identity of network participants are known, the digital ledger of transactions is decentralized, which improves transparency, security, and efficiency. It has been noted that Walmart could have forced its suppliers to use a centralized database, "but blockchain technology offers a simpler and more secure process than barcodes, scanners and paper forms, according to Frank Yiannas, head of food safety at Walmart."[55]

In addition to these two initiatives, there are a number of other blockchain applications likely to be particularly significant in the agricultural sector. What they have in common is that they are all likely to be private blockchains, with access controlled by the developer. In addition to the IBM Food Trust, other initiatives are also relying on blockchain technology to resolve supply chain issues such as problems with

[54] More detail about the project can be accessed at How Walmart Strives for Food Quality And Safety Using Blockchain Technology Solutions, PixelPlex Blog (Oct. 21, 2020) (archived at https://perma.cc/9QTE-DYLD).

[55] Mark van Rijmenam, *Seven Use Cases of Enterprise Blockchain Solutions,* DataFloq (Oct. 11, 2018) (archived at https://perma.cc/J4RX-JFHX). Shortly after that report, in December 2018, Frank Yiannas left Walmart to become the Deputy Commissioner for Food Policy and Response at the Food and Drug Administration.

food traceability, food safety and quality, food trust, and inefficiency.[56] An additional potential use of blockchain technology in the agricultural sector is in connection with indexed insurance, where the blockchain can automate payments based on weather data or other data sources, thereby improving accuracy and efficiency of the payment process as well as reducing costs.[57] Another application for blockchain technology might be smart agriculture, which normally relies on modern data collection and analysis. Blockchain technology can ensure that the data is transparent and immutable, meaning it is not subject to alteration or tampering, and data loss and distortion are minimized.[58] Agricultural e-commerce also has the potential to be improved by the use of blockchain technology, especially regarding issues such as information and payment security, efficiency in supply chain management, consumer trust, and costs.[59]

In each of these cases, the use of private blockchains offers more control over data, and limits access to trusted partners. It has been hypothesized that as security initiatives for public blockchains are improved, the use of private blockchains may decline, but that ay also depend on the goals of the particular company utilizing the technology.[60]

Conclusion

This short article does not purport to, and assuredly does not, list all of the issues that could arise in connection with the decision to issue, sell, or utilize cryptoassets. There are enough regulatory considerations mentioned here, however, to strongly support the idea that specialized legal advice should be sought prior to finalizing any decision to create or issue new cryptoassets. In addition, the tax ramifications of dealing with cryptoassets (whether by issuing them, accepting them as payment, or using them as a means of payment) are such that professional tax advice is also warranted. The possibility of

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[56] For example, in March 2017, Alibaba and Australia Post began an exploration of blockchain technology in an effort to combat food fraud. Tas Bindi, Alibaba and AusPost team up to tackle food fraud with blockchain, ZDNet (March 24, 2017) (archived at https://perma.cc/LZ3B-KCY5).

[57] Etherisc is one of the most active companies working on this potential application. For example, in November 2020, Etherisc announced work on a blockchain-based parametric crop insurance platform for small farmers in Kenya. *Etherisc to develop a blockchain-based crop insurance for Kenyan farmers*, LedgerInsights (Nov. 16, 2020) (archived at https://perma.cc/5LXV-FAAZ).

[58] There have been various suggestions for how this might work in practice. *See, i.e.,* Akash Suresh Patil et al, *A Framework for Blockchain Based Secure Smart Green House Farming*, 2017 Int'l Conf. on Computer Sci. & Ubiquitous Computing 1162-67 (archived at https://perma.cc/ZJV8-R5JP).

[59] For example, JD.com, a Chinese e-commerce giant that has partnered with Walmart, uses blockchain technology to improve consumer confidence by authenticating its steaks. Becky Peterson, *The Amazon of China is putting its high-end beef imports on the blockchain,* Business Insider (Mar. 3, 2018) (archived at https://perma.cc/8HM8-N4MR).

[60] *Private vs. Public: What approach should you take when it comes to Blockchain?,* FutureBridge Blog (Feb. 26, 2020) (archived at https://perma.cc/ENH5-NUSJ). This source notes that the Ambrosus public blockchain also has existsing applications in the agricultural sector, including partnerships with "PREMIUM Goods, a Madagascar Bourbon Vanilla Producer, Nongshim Data Systems for beef traceability, as well as other companies, such as H!VE Honey."

adopting blockchain technology to accomplish other objectives, however, does not necessarily give rise to as many considerations.[61]

The final paper in this three-part series will focus in more detail on the existing applications for blockchain in the agricultural sector. It will also consider ways in which blockchain is being considered for use by large and small agribusinesses, individual ranchers and farmers, and regulators, even if the applications are not yet fully functional.

[61] In fact, blockchain technology might actually improve a company's ability to comply with regulatory requirements, particularly as the FDA imposes additional requirements for traceability of foods that are particularly susceptible to contamination. See Mason Marks, *Blockchain and the FDA's Blueprint for a New Era of Smarter Food Safety*, SLS Blogs (Mar. 10, 2021) (archived at https://perma.cc/54JG-8EEE).