

Joint Informational Hearing  
Assembly Banking and Finance Committee  
Assembly Select Committee on Technological Advances

**Virtual Currency Businesses: The Market and Regulatory Issues**

Thursday, October 17, 2019

10 am, Rio Hondo Community College, Whittier, CA

1. **Hearing Goal.** The goal of this hearing is to provide information to members of the Legislature about (1) the emerging industry of businesses that facilitate the exchange, transfer, and storage of virtual currencies and (2) regulatory issues related to the industry. Since the introduction of Bitcoin in 2009, computer programmers have developed thousands of different virtual currencies, and hundreds of businesses have sprouted up to provide services to virtual currency users. Although some virtual currency business activity is subject to a combination of existing state and federal laws, a lack of regulatory clarity and adequate protections for users of virtual currencies may negatively affect businesses, consumers, and investors in California.

Topics that will be discussed during the hearing include:

- An overview of the virtual currency industry and how existing laws impact companies in the industry,
- Potential risks to consumers or investors due to negligent, fraudulent, or unscrupulous actions by virtual currency businesses,
- Guidance from the Commissioner of Business Oversight related to the pros and cons of establishing a new regulatory framework specific to virtual currency business activity and issues the Legislature may consider when designing such a framework,
- A summary of the model regulatory framework adopted by the Uniform Law Commission (ULC) and discussion of the process for how the ULC reached their conclusions.

The Committees will hear from industry representatives, consumer organizations, state regulatory officials, and policymakers associated with the ULC.

2. **What is virtual currency?** A virtual currency is a digital representation of value that is not issued or backed by a government or central bank. Virtual currencies are a form of electronic money and serve one or more of the traditional functions of money: a medium of exchange, a unit of account, and a store of value. Unlike the US dollar, virtual currencies are not considered legal tender<sup>1</sup>, but private parties may agree to use a virtual currency to facilitate an economic exchange.

Virtual currencies are created by either a centralized issuer, a decentralized protocol, or a hybridization of the two models. Under centralized issuance, a single entity has the ability to

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<sup>1</sup> A legal tender is a medium of exchange that is legally approved as a mechanism to repay a debt.

create units of the virtual currency and serves as the record keeper for transfers of the virtual currency between parties. In the centralized issuance model, users of a virtual currency must trust the issuer to manage the creation and record keeping processes in a manner that supports the currency's effectiveness as a medium of exchange and store of value.

Bitcoin and many other virtual currencies are created and tracked via a decentralized protocol, rather than the centralized issuance model that prevails in the world of fiat money.<sup>2</sup> The most commonly used technology that underpins decentralized virtual currencies is distributed ledger technology, or DLT. DLT is essentially a decentralized database that is managed by multiple parties within a network. When a new transaction occurs, whether the creation of a new unit of virtual currency or the transfer of an existing unit of virtual currency between parties, DLT notifies all members of the network about the new transaction by updating the ledger. Blockchain is the most well-known type of DLT and is the technology that underpins Bitcoin.

In the decentralized model, users do not need to trust a single entity to manage the virtual currency. Instead, DLTs rely on consensus algorithms that are designed so that network participants must arrive at an agreement when adding new transactions to a ledger. The ledger is visible to all parties in the network and is secured by sophisticated cryptography,<sup>3</sup> which ensures that a unit of virtual currency cannot be simultaneously used by multiple parties.

The Bitcoin source code was released by a pseudonymous individual or group in 2009, and Bitcoin is regarded as the first successful decentralized virtual currency. The blockchain technology that underpins Bitcoin is designed to address longstanding problems in computer science related to consensus protocols and double-spending of a digital asset or currency. While Bitcoin is the most popular virtual currency, there are more than 2,000 virtual currencies currently available on trading platforms.<sup>4</sup> Many of these *altcoins*, or alternatives to Bitcoin, rely on adaptations of the technological breakthroughs contained in the Bitcoin source code

- 3. How do businesses participate in virtual currency markets?** Developed markets for virtual currencies typically rely on businesses that serve as intermediaries between users. In theory, decentralized virtual currencies, like Bitcoin, do not require intermediaries to exchange, transfer, or store units of virtual currencies. In practice, however, transactions between users can be facilitated more safely and more conveniently by using trusted intermediaries, similar to how the banking system evolved to provide intermediary services in the fiat-denominated economy.

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<sup>2</sup> Fiat money is often used interchangeably with legal tender. Fiat money is currency that has been established as money by government decree or law. The US dollar, euro, and Mexican peso are examples of fiat money.

<sup>3</sup> Cryptography refers to techniques for securing communications through the use of codes.

<sup>4</sup> <https://coinmarketcap.com/all/views/all/>

Businesses that serve virtual currency users provide a combination of services that fall in three general categories: transfer, exchange, and storage.<sup>5</sup>

- Transfer refers to an activity where a business takes funds or value from one end of a transaction and delivers those funds or value to a designated person on the other end.
- Exchange refers to transferring an amount of virtual currency in exchange for an agreed upon amount of fiat currency, or vice versa. Exchange also includes transferring one type of virtual currency for a different type of virtual currency at an agreed upon rate.
- Storage refers to receiving and safekeeping virtual currency on behalf of someone else. Storage is analogous to a bank accepting funds on deposit. Virtual currency storage is often facilitated by the use of a digital wallet that makes transferring or exchanging virtual currency more convenient for users.

4. **What is the current regulatory landscape for virtual currency businesses?** Virtual currency business activity is relatively new, and it is often unclear how existing state and federal laws apply to such activity. Many virtual currencies have a combination of properties that straddle multiple regulatory areas, including laws that govern securities, commodities, and money transmission, which further complicates the application of laws to virtual currency business activities.

A lack of regulatory clarity can harm businesses and users. Businesses may invest resources in developing services that ultimately could be deemed unlawful by state or federal regulators. Users may have trouble identifying legitimate businesses from illegitimate ones without a state or federal licensing authority's stamp of approval.

Policymakers may also be concerned about important policy objectives that can be undermined by unregulated virtual currency business activity. Virtual currencies allow users to transfer large amounts of value over long distances while masking the identities of both the sender and receiver, which raises significant concerns about money laundering, tax evasion, and terrorist financing.

Currently, there is neither a comprehensive regulatory approach from the federal government, nor a widely adopted approach at the state level. Instead, a patchwork of existing laws are applied, not always uniformly, by various federal and state regulators based on factors including the technological design of a virtual currency and the way a virtual currency is used.

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<sup>5</sup> Businesses may offer additional services related to virtual currencies that do not fall neatly under any of these three categories, such as derivative trading products.

## Federal

Existing federal law provides both the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) with partial jurisdiction over virtual currency businesses.

SEC jurisdiction applies when a unit of virtual currency is considered a security. The legal standard that defines a security is a four-pronged test: there must be (1) an investment of money, (2) in a common enterprise, (3) with the expectation of profit, (4) from the managerial efforts of others. When deemed a security, the SEC authority is most often related to Initial Coin Offerings (ICOs) and trading activities, which subjects a virtual currency business to requirements related to registration, cybersecurity, and implementing policies to prevent fraud and market manipulation.

CFTC jurisdiction applies when a virtual currency product is a derivative of a commodity. Units of virtual currency that are deemed not to be securities may be subject to commodities law. For example, Bitcoin does not meet the definitional requirements of a security, but it is considered a commodity by the CFTC. Exchanges involving fiat currency to Bitcoin are not under CFTC jurisdiction, but a derivative product based on Bitcoin, such as a futures contract that states a ratio in US dollar to bitcoin, is subject to CFTC enforcement.

Congressional interest in virtual currencies increased in 2019 upon Facebook's announcement that it intends to develop a virtual currency named Libra in conjunction with major companies in the financial services industry. Both the House Financial Services and Senate Banking Committees held hearings about Facebook's plan in July 2019. During those hearings, both Republican and Democratic legislators voiced concerns due to Facebook's failures in protecting consumer data. Facebook's announcement has led some Members of Congress to introduce legislation to bar large technology companies from providing financial services.<sup>6</sup> A comprehensive approach from Congress related to virtual currency business regulation, however, does not appear to be imminent.

## States

There is not a uniform approach to the regulation of virtual currency businesses at the state level. All states, except Montana, have laws that regulate money transmitters, but such laws vary between states and state regulators differ in their interpretations of whether and in which cases state money transmission laws apply to virtual currency businesses. The following examples shed light on the range of state actions in this space.

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<sup>6</sup> <https://www.cnn.com/2019/07/15/tech/facebook-libra-ban-draft/index.html>

- *New York:* New York attempted a comprehensive approach to regulating virtual currency businesses with the introduction of BitLicense in 2014. The state financial regulator, New York State Department of Financial Services (DFS), issued a regulation that requires companies to have a license prior to engaging in specified activities, including virtual currency transmission, storing virtual currency on behalf of others, issuing a virtual currency, and performing exchange services. To obtain a license, companies must pay a \$5,000 application fee, maintain sufficient capital as determined by DFS, and have an anti-money laundering program and cybersecurity program, along with a list of other requirements common in the financial services industry. Due to these requirements, some virtual currency companies have decided to exit the state and deny service to New York customers.<sup>7</sup> Twenty-one companies have received a BitLicense since its inception.
- *California:* The state's Money Transmitter Act (MTA) does not expressly address virtual currencies or virtual currency business activity. The Department of Business Oversight, who enforces the MTA, has not released comprehensive official guidance on the applicability of the MTA or other state laws on virtual currency business activity. Rather, DBO responds to specific requests from companies on a case-by-case basis and posts a redacted version of its response letters on its website.
- *Wyoming:* Wyoming has emerged as the most business-friendly state for virtual currency businesses. The Legislature passed and the Governor signed an express exemption for virtual currencies from the state's Money Transmitter Act in 2018. The state also exempted certain virtual currency tokens from state securities laws, but the impact of such an exemption is muted by federal laws that may take precedence.

##### 5. **What risks to consumers and users of virtual currencies exist in the market today?**

Adoption of virtual currencies by American consumers is low, with industry-sponsored surveys indicating that 5-10% of respondents own a virtual currency.<sup>89</sup> Research indicates that only 1% of virtual currency transactions involve a merchant,<sup>10</sup> which means that virtual currencies are rarely used as a form of payment for goods or services. The same study showed that nearly 90% of transactions involved an exchange, indicating that the predominant motivation for users to purchase a virtual currency is speculation that it will increase in value relative to other assets.

Although virtual currencies may be seldom used for purposes beyond speculation, policymakers have an interest in protecting users from fraudulent and criminal activities. In 2014 the federal Consumer Financial Protection Bureau (CFPB) issued a consumer advisory that cautioned consumers about risks posed by virtual currency.<sup>11</sup> The CFPB warned against hackers and fraudulent schemes, as well as price volatility and transaction costs compared to traditional

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<sup>7</sup> <https://www.coindesk.com/bitlicense-refugees-kraken-shapeshift-ceos-talk-escape-new-york>

<sup>8</sup> <https://www.bitcoinmarketjournal.com/how-many-people-use-bitcoin/>

<sup>9</sup> <https://cointelegraph.com/news/11-of-americans-own-bitcoin-major-awareness-increased-since-2017>

<sup>10</sup> <https://www.latimes.com/business/la-fi-bitcoin-rally-blockchain-speculation-20190531-story.html>

<sup>11</sup> [https://files.consumerfinance.gov/f/201408\\_cfpb\\_consumer-advisory\\_virtual-currencies.pdf](https://files.consumerfinance.gov/f/201408_cfpb_consumer-advisory_virtual-currencies.pdf)

payment methods. The CFPB also warned consumers that virtual currency businesses do not provide the level of protections that consumers expect from banks and credit unions.

Examples of large hacks or fraudulent schemes include:

- Mt. Gox, \$487 million – Mt. Gox was a Tokyo-based exchange platform that was the world’s largest Bitcoin exchange prior to its failure in 2014. Hackers infiltrated the company’s network in 2011 and began skimming bitcoin from electronic wallets. When the security breach and theft was announced in 2014, hackers had stolen 850,000 bitcoin, which was valued at \$460 million at the time, and about \$27 million in cash held by the company. Mt. Gox filed for bankruptcy and liquidated in 2014. A portion of the stolen funds were recovered, and the legal process of partially refunding users is still ongoing.
- Coincheck, \$530 million – Coincheck is a Tokyo-based exchange platform. In January 2018 the company was hacked and lost \$530 million worth of users’ virtual currencies. The company initially stated that it did not have funds to cover the losses, but later committed to refunding users. Japan’s financial regulator was involved in assessing the company’s capacity to issue the refunds.
- Bitfinex, \$72 million – Bitfinex is a Hong Kong-based exchange platform. In August 2016 the company announced that nearly 120,000 bitcoin were drained from user accounts by hackers, reflecting a value of \$72 million at the time.
- iFan and Pincoin, \$660 million – A Vietnam-based company called Modern Tech was allegedly behind two fraudulent Initial Coin Offerings (ICOs) for start-ups iFan and Pincoin. ICOs are a way for tech startups to raise capital from investors, similar to the Initial Public Offering, or IPO, that makes a company’s stock publicly available for purchase. Modern Tech allegedly packed up its offices in Ho Chi Minh City and disappeared in 2018 after raising \$660 million from investors.

6. **What is the Uniform Law Commission and how do they propose regulating virtual currency business activity?** The Uniform Law Commission (ULC) has worked for the uniformity of state laws since 1892. It is a non-profit unincorporated association, comprised of state commissioners on uniform laws from each state, the District of Columbia, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands. There is only one fundamental requirement for the more than 300 uniform law commissioners: that they be members of the bar. The state uniform law commissioners come together as the ULC for one purpose—to study and review the law of the states to determine which areas of law should be uniform. The commissioners promote the principle of uniformity by drafting and proposing specific statutes in areas of the law where uniformity between the states is desirable.

In July 2017 the ULC adopted the Uniform Regulation of Virtual-Currency Businesses Act after an extensive stakeholder process and multiple rounds of drafting, review, and amendments. The act defines several key terms that govern whether a company’s activities would be subject to regulation, including definitions of virtual currency, virtual currency business activity, control, exchange, store, and transfer. The act proposes a licensing framework for companies with virtual

currency businesses activity greater than \$35,000 annually, with specified exceptions. The licensing framework establishes criteria for approval of a license application, provides examination and enforcement authority to a state regulatory agency, mandates disclosures and other protections for users, and mandates compliance programs and policies.

The ULC framework has been introduced in five state legislatures, but no state has adopted it yet.

## 7. **Additional Resources.**

Massad, Timothy G., Brookings Institute, *It's Time to Strengthen the Regulation of Crypto-Assets*. March 2019. <https://www.brookings.edu/wp-content/uploads/2019/03/Economis-Studies-Timothy-Massad-Cryptocurrency-Paper.pdf>

Van Valkenburgh, Peter, Coin Center. *The Need for a Federal Alternative to State Money Transmission Licensing*. January 2018. <https://coincenter.org/files/2018-01/federalalternativev1-1.pdf>

Van Valkenburgh, Peter, and Jerry Brito. Coin Center. *State Digital Currency Principles and Framework*. March 2017. <https://coincenter.org/files/2017-03/statevirtualcurrencyprinciplesandframeworkv2.0.pdf>