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VIRTUAL CURRENCIES: GROWING REGULATORY FRAMEWORK AND CHALLENGES IN THE EMERGING FINTECH ECOSYSTEM

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I. INTRODUCTION

In the context of a widely publicized explosion of new technology and innovation designed to disrupt the marketplace of traditional financial institutions in delivering financial services, the number of financial technology ("fintech") companies in the United States and United Kingdom alone has grown to more than 4,000 in recent years. Further, investment in this sector has grown from $1.8 billion to $24 billion worldwide in just the last five years.[1] The financial services industry is experiencing rapid technological changes as it seeks to meet and anticipate business opportunities and needs, consumer demands and expectations, and demographic trends. In particular, the advent of virtual currency ("VC"), beginning with Bitcoin in 2008, has quickly exploded into an emerging financial ecosystem composed of non-government based legal tender. This emergence illustrates the exciting possibilities for peer-to-peer payment systems, money transmission, mobile payment systems, and investment opportunities not only for purchasers and sellers of VC, but also for investors in VC business activity, and perhaps more significantly, consumers. As such, VC presents potential business opportunities for innovative fintech companies, as well as the banking and financial services industry.

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1. Thomas J. Curry, Comptroller of the Currency, Remarks Regarding Special Purpose National Bank Charters for Fintech Companies at the Georgetown University Law Center 1 (Dec. 2, 2016), https://www.occ.gov/news-issuances/speeches/2016/pub-speech-2016-152.pdf; *see also infra* Section III.C. and accompanying notes.

However, the advent of virtual currencies has also brought significant concerns about potential illegal and fraudulent activities related to these currencies. Accordingly, governments, regulators, and law enforcement authorities worldwide have been forced to focus on the implications of these currencies. This focus has been dominated by concerns about, among other things, the use of virtual currency in illegal activities such as narcotics trafficking, terrorism and money laundering activities, and customer theft and data breaches. Virtual currencies can also pose existential threats to government-backed fiat currencies and the global economy. In this light, the growing legal and regulatory challenges seem clear—balancing an approach that fosters responsible development of an innovative technology that spurs potentially significant benefits with an effective legal and regulatory framework that protects consumers, businesses, and the financial system.

This Article proceeds in five parts. Part II discusses the background of virtual currency—primarily Bitcoin's development and legal and regulatory complications, including the Silk Road and Mt. Gox prosecutions that have arisen in connection with virtual currency in business activities.[2] Part III discusses major legal, enforcement, and regulatory initiatives that address challenges related to virtual currencies, both in the United States and in countries with major financial services industries.[3] Part IV discusses international legal and regulatory developments, surveying select jurisdictions with significant impacts on the global financial services industry.[4] Finally, Part V briefly concludes with some closing thoughts.[5]

II. BACKGROUND

A. Bitcoin Developments

In 2008, Satoshi Nakamoto—the mysterious creator of bitcoin—triggered a potential revolution in global currencies, payment systems, financial services, and fintech business and regulation by publishing an eight-page paper entitled *Bitcoin: A Peer-to-Peer*

2. *See infra* Part II.
3. *See infra* Part III.
4. *See infra* Part IV.
5. *See infra* Part V.

Electronic Cash System.[6] This paper offered a clear enough thesis: proposing a "purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution."[7]

The first bitcoin was created in 2009 after Nakamoto released the Bitcoin Network ("Bitcoin Network") source code, which is the software and protocol that created and launched the Bitcoin Network.[8] Since its introduction, the Bitcoin Network has been under active development by a group of contributors, currently headed by Wladimir J. van der Laan, who was appointed project maintainer in 2014.[9] As an "open source" project, an official organization or authority does not represent Bitcoin.[10]

While technically complex, bitcoin is essentially a digital asset that is issued by, and transmitted through, the decentralized, open source protocol of the peer-to-peer Bitcoin Network.[11] "The Bitcoin Network hosts the decentralized public transaction ledger, known as the Blockchain, on which all bitcoin is recorded."[12] No single entity owns or operates the Bitcoin Network, "the infrastructure of which is collectively maintained by a decentralized user base."[13] "Bitcoin can be used to pay for goods and services or can be converted to fiat

6. Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN (Oct. 31, 2008), https://bitcoin.org/bitcoin.pdf. Much controversy and discussion has surrounded the true identity of Satoshi Nakamoto, and to date, no one has come forward to claim that he or she is Nakamoto. *See, e.g.*, *Who is Satoshi Nakamoto?*, COINDESK, http://www.coindesk.com/information/who-is-satoshi-nakamoto/ (last updated Feb. 19, 2016). While this article focuses primarily on legal and regulatory issues associated with bitcoin as the first virtual currency, there has been an explosion of virtual currencies in recent years, including, but not limited to ether, litecoin, peercoin, freicoin, ripple and linden dollar, dogecoin, primecoin, darkcoin, and primecoin. Prableen Bajpai, *The Five Most Important Virtual Currencies Other Than Bitcoin*, INVESTOPEDIA (Dec. 10, 2014, 2:45 PM), http://www.investopedia.com/articles/investing/121014/5-most-important-virtual-currencies-other-bitcoin.asp; Reuven Cohen, *The Top 30 Crypoto-Currency Market Capitalizations in One Place*, FORBES (Nov. 27, 2013, 10:41 AM), http://www.forbes.com/sites/reuvencohen/2013/11/27/the-top-30-crypto-currency-market-capitalizations-in-one-place/print/.

7. Nakamoto, *supra* note 6, at 1.

8. For an in-depth discussion of bitcoin, see Winklevoss Bitcoin Tr., Registration Statement No. 333-189752, 13–23 (Am. No. 6 to Form S-1) (June 29, 2016) (Proposed bitcoin exchange traded fund).

9. *Id.* at 14.

10. *Id.*

11. *Id.* at 13.

12. *Id.*

13. *Id.*

currencies, such as the U.S. dollar, at rates determined on Bitcoin Exchanges or in individual end-user-to-end-user transactions under a barter system."[14]

> Bitcoin is "stored" or reflected on the digital transaction ledger known as the "Blockchain," which is a digital file stored in a decentralized manner on the computers of each Bitcoin Network user. The Bitcoin Network software source code includes the protocols that govern the creation of bitcoin and the cryptographic system that secures and verifies bitcoin transactions. The Blockchain is a canonical record of every bitcoin transaction (including the creation or "mining" of new bitcoin) and every Bitcoin address associated with a quantity of bitcoin. The Bitcoin Network and Bitcoin Network software programs can interpret the Blockchain to determine the exact bitcoin balance, if any, of any public Bitcoin address listed in the Blockchain as having taken part in a transaction on the Bitcoin Network.[15]

However, this public information is limited to the address and does not include the identity of the user.

> The Bitcoin Network utilizes the Blockchain to evidence the existence of bitcoin in any public Bitcoin address. A Bitcoin private key controls the transfer or "spending" of bitcoin from its associated public Bitcoin address. A Bitcoin wallet is a collection of private keys and their associated public Bitcoin addresses.
>
> The Blockchain is comprised of a digital file, downloaded and stored, in whole or in part, on all Bitcoin Network users' software programs. The file includes all blocks that have been solved by miners and is updated to include new blocks as they are solved. As each newly solved block refers back to and "connects"

14. Id.

15. *Id.* at 39

> with the immediately prior solved block, the addition of a new block adds to the Blockchain in a manner similar to a new link being added to a chain. Each new block records outstanding Bitcoin transactions, and outstanding transactions are settled and validated through such recording, the Blockchain represents a complete, transparent and unbroken history of all transactions of the Bitcoin Network. Each bitcoin transaction is broadcast to the Bitcoin Network and recorded in the Blockchain . . . .
>
> The Bitcoin Network is decentralized and does not rely on either governmental authorities or financial institutions to create, transmit, or determine the value of bitcoin. Rather, bitcoin is created and allocated by the Bitcoin Network protocol through a "mining" process subject to a strict, well-known issuance schedule. The value of bitcoin is determined by the supply of and demand for bitcoin in the bitcoin exchange market (and in private end-user-to-end-user transactions), as well as the number of merchants that accept them.[16]

B. Early Regulatory and Law Enforcement Problems

1. Silk Road

Silk Road was an online black market, and the first "dark net market," best known as a platform for selling illegal drugs and other illicit goods and services purchased with bitcoin.[17] Silk Road placed a spotlight on the "dark net" or "dark web"—hidden or so-called overlay networks that can only be accessed with specific software or authorizations, usually through either peer-to-peer file sharing networks,

16. *Id.* at 39–40.

17. *See* David Lee, *U.S. Makes Bitcoin Exchange Arrests After Silk Road Closure*, BBC NEWS (Jan. 28, 2014), www.bbc.com/news/technology-25919482 (describing the arrest of an individual who was accused of allowing another individual to purchase and resell large quantities of bitcoin to "Silk Road users who want[ed] to anonymously buy drugs"). The Silk Road was a historical network of trade routes started during the Chinese Han Dynasty (206 B.C. – 220 A.D.) connecting Europe and many countries on the Eurasian Land Mass. VADIME ELISEEFF, THE SILK ROAD: HIGHWAYS OF CULTURE AND COMMERCE (2001).

or privacy networks,[18] such as Tor,[19] and perhaps more significantly, the ability to anonymously use bitcoin for illegal transactions—particularly since Silk Road in fact, only accepted bitcoin.[20]

Silk Road, founded in February 2011 by Ross Ulbricht, quickly gained public notoriety and internet buzz, including scrutiny from a U.S. Senator, who publicly asked U.S. law enforcement authorities, including the U.S. Department of Justice and Drug Enforcement Administration, to shut it down.[21] Its notoriety was further exacerbated by the fact that its founder went by the swashbuckling pseudonym "Dread Pirate Roberts,"[22] espousing a libertarian goal for Silk Road, posted at its website, "[t]o grow into a force to be reckoned with that can challenge the powers that be and at last give people the option to choose freedom over tyranny."[23] By 2013 the Silk Road had nearly one million account users, facilitating over 1.2 million transactions worth

18. *See generally* Jessica Wood, *The Darknet: A Digital Copyright Revolution*, 16 RICH. J.L. & TECH. 14, 14 (2010).

19. Tessa Miller, *How Can I Stay Anonymous with Tor?*, LIFEHACKER (Jan. 10, 2014, 2:00 PM), http://lifehacker.com/how-can-i-stay-anonymous-with-tor-1498876762; Kyle Torpay, *BlockChain.info Launches Tor Hidden Service*, INSIDE BITCOINS (Dec. 2, 2014, 2:55 PM), http://insidebitcoins.com/news/blockchain-info-launches-tor-hidden-service/26920.

20. *See, e.g.*, Brian Patrick Eha, *Could the Silk Road Closure be Good for Bitcoin?*, THE NEW YORKER, (Oct. 25, 2013), http://www.newyorker.com/business/currency/could-the-silk-road-closure-be-good-for-bitcoin; Amrutha Gayathri, *From Marijuana to LSD, Now Illegal Drugs Delivered on Your Doorstep*, INT'L. BUS. TIMES (June 11, 2011, 3:31 AM) http://www.ibtimes.com/marijuana-lsd-now-illegal-drugs-delivered-your-doorstep-290021; Adrian Chen, *The Underground Website Where You Can Buy Any Drug Imaginable*, GAWKER (June 1, 2011, 3:20 PM), http://gawker.com/the-underground-website-where-you-can-buy-any-drug-imag-30818160.

21. *See Schumer Pushes to Shut Down Online Drug Marketplace*, NBC N.Y. (updated May 31, 2016, 12:49 PM), http://www.nbcnewyork.com/news/local/Schumer-Calls-on-Feds-to-Shut-Down-Online-Drug-Marketplace-123187958.html (highlighting the website's operation and Senator Schumer's call for federal authorities to have it removed); *see also* Kevin McCoy, *Silk Road Founder Hit with Life Imprisonment*, USA TODAY (May 29, 2015, 4:42 PM), http://www.usatoday.com/story/money/2015/05/29/ulbricht-silk-road-sentencing/28072247/ (detailing the trial of Ross Ulbricht and his founding and operation of Silk Road since 2011).

22. Andy Greenberg, *Meet the Dread Pirate Roberts, The Man Behind Booming Black Market Drug Website*
Silk Road, FORBES, (Aug. 14, 2013, 11:31 AM), http://www.forbes.com/sites/andygreenberg/2013/08/14/meet-the-dread-pirate-roberts-the-man-behind-booming-black-market-drug-website-silk-road/print/. The name "Dread Pirate Roberts" was apparently taken from a character in the 1987 movie *The Princess Bride*, who was feared for his ruthlessness, sword fighting prowess, and well known for taking no prisoners. *Id.;* THE PRINCESS BRIDE (20th Century Fox 1987).

23. Nate Anderson & Cyrus Farivar, *How the Feds Took Down the Dread Pirate Roberts*, ARS TECHNICA (Oct. 3, 2013, 12:00 AM), https://arstechnica.com/tech-policy/2013/10/how-the-feds-took-down-the-dread-pirate-roberts/.

9.5 million bitcoin—approximately $1.2 billion in total money exchanged—in a two and a half year period.[24]

After a lengthy government investigation by a host of U.S. federal agencies and other governments[25] in October 2013, the Federal Bureau of Investigation shut down the website and arrested Ross Ulbricht, prosecuting him for omnibus violations of federal drug and anti-money laundering laws and ordering him to pay restitution of $183 million, representing all sales of illegal items on Silk Road.[26] He was convicted on numerous other charges, including illegal drug sales, and was sentenced to life in prison without possibility of parole.[27]

24. *Id.*

25. In announcing indictments of parties related to the Silk Road website, it is interesting to note that the U.S. Attorney prosecuting the case made the following statement of thanks in his press release:

> Mr. Bharara praised the outstanding investigative work of the FBI and its New York Special Operations and Cyber Division, as well as the outstanding investigative work of the DEA's New York Organized Crime Drug Enforcement Strike Force, which comprises agents and officers of the DEA, the IRS, the New York City Police Department, U.S. Immigration and Customs Enforcement's ("ICE") Homeland Security Investigations ("HIS"), the New York State Police, the Bureau of Alcohol, Tobacco, Firearms and Explosives, the U.S. Secret Service, the U.S. Marshals Service, Office of Foreign Assets Control, and NY Department of Taxation. Mr. Bharara also thanked the ICE-HIS Chicago-O'Hare office for its assistance and support, as well as the Department of Justice's Computer Crime and Intellectual Property Section and Office of International Affairs. Additionally, Mr. Bharara praised the foreign law enforcement partners whose contributions to the success of the investigation and prosecution have been invaluable, namely, the Australian Federal Police, the Irish Republic's Computer Crime Investigation Unit of the An Garda Siochana, the Reykjavik Metropolitan Police of the Republic of Iceland, and the French Republic's Central Office for the Fight Against Crime Linked to Information Technology and Communication.

Press Release, U.S. Attorney's Office, S.D.N.Y., Manhattan U.S. Attorney Announces Charges Against Three Individuals in Virginia, Ireland, and Australia for Their Roles in Running the "Silk Road" Website (Dec. 20, 2013) [hereinafter Silk Road Press Release], https://www.justice.gov/usao-sdny/pr/manhattan-us-attorney-announces-charges-against-three-individuals-virginia-ireland-and.

26. *See* Nicole Hong, *Silk Road Founder Ross Ulbricht Sentenced to Life in Prison*, WALL ST. J. (updated May 29, 2015, 7:20 PM), http://www.wsj.com/articles/silk-road-founder-ross-ulbricht-sentenced-to-life-in-prison-1432929957 (describing the penalties and punishments levied against Ulbricht, including life in prison and a $183 million forfeiture).

27. Benjamin Weiser, *Ross Ulbricht, Creator of Silk Road Website, is Sentenced to Life in Prison*, N.Y. TIMES (May 29, 2015), https://www.nytimes.com/2015/05/30/nyregion/ross-ulbricht-creator-of-silk-road-website-is-sentenced-to-life-in-prison.html?_r=0.

Subsequently, others associated with the website were also prosecuted.[28] In connection with these prosecutions, the government seized over $100 million in bitcoins, $18 million of which it subsequently sold in auction transactions.[29]

2. Mount Gox

The Mount Gox website, Mtgox.com, originally registered in 2007 by Jed McCaleb, an American entrepreneur, as a domain name for the purpose of turning it into a trading site for game cards of a popular online game, Magic: The Gathering.[30] The site was live for only a few months but McCaleb never followed through.[31] However, in late 2010, he decided to repurpose the domain as one of the first exchanges for the purchase and sale of bitcoin.[32] After realizing the time and attention required to run the site, he sold it to Mark Karpelès while apparently retaining a 12% interest.[33] Karpelès, after revising the site's backend software, turned it into the world's most popular bitcoin exchange, headquartered in Tokyo.[34] Notwithstanding a security breach due to hacking in June 2011 that forced the site offline for several days, Mt. Gox became a preeminent bitcoin trading exchange.[35] During 2013, bitcoin prices took off, climbing from $13 to more than $1,200 at its peak.[36] By April 2013, at about the same time the Silk Road situation

28. *See* Silk Road Press Release, *supra* note 25 (describing the roles of Andrew Michael Jones, Gary Davis, and Peter Phillip Nash in Silk Road and their indictments). Interestingly, Ulbricht was also accused of paying for the killing of five people, although none were actually killed, and he was never prosecuted regarding these allegations. Hong, *supra* note 26.

29. Peter Svensson, *U.S. Marshals to Auction Seized Bitcoin*, THE SEATTLE TIMES (updated June 13, 2014, 9:31 AM), http://www.seattletimes.com/business/us-marshals-to-auction-seized-bitcoin/.

30. Robert McMillan, *The Inside Story of Mt. Gox, Bitcoin's $460 Million Disaster*, WIRED (Mar. 3, 2014, 6:30 AM), https://www.wired.com/2014/03/bitcoin-exchange/.

31. *Id.*

32. *Id.*

33. *Id.*

34. *Id.*; *see also* Rachel Abrams, Matthew Goldstein, & Hiroko Tabuchi, *Erosion of Faith was Death Knell for Mt. Gox*, N.Y. TIMES DEALBOOK (Feb. 28, 2014, 6:45 AM), https://dealbook.nytimes.com/2014/02/28/mt-gox-files-for-bankruptcy/ (describing how the exchange handled 80% of all Bitcoin transactions at one point).

35. McMillan, *supra* note 30. During that same time period, there were reports that other emerging bitcoin exchanges were also being hacked, losing customer funds, and simply folding by 2013. *Id.*

36. McMillan, *supra* note 30.

was attracting government scrutiny and press attention, Mt. Gox had grown to handle 70% of the world's bitcoin trades[37] and suspended trading on April 11–12 for a "market cool-down."[38]

In May 2013, CoinLab filed a $75 million lawsuit against Mt. Gox, alleging a breach of contract.[39] The companies had formed a partnership in February 2013 under which CoinLab handled all of Mt. Gox's North American services.[40] CoinLab's lawsuit contended that Mt. Gox failed to allow it to move existing customers from Mt. Gox to CoinLab.[41]

On May 14, 2013, the U.S. Department of Homeland Security ("DHS") obtained a warrant to seize money from Mt. Gox's U.S. subsidiary's account with payment processor Dwolla.[42] The warrant suggests the U.S. Immigration and Customs Enforcement, an investigative branch of the DHS, felt that the subsidiary, which was not licensed by the U.S. Financial Crimes Enforcement Network ("FinCEN"), was operating as an unregistered money transmitter in the U.S.[43] Between May and July of that year, more than $5 million was seized.[44] On June 29, 2013, nonetheless, Mt. Gox received its money

37. Robert McMillan & Cade Metz, *The Rise and Fall of the World's Largest Bitcoin Exchange*, WIRED (Nov. 6, 2013, 6:30 AM), https://www.wired.com/2013/11/mtgox/. According to a leaked business plan, the company at one point owned 100,000 bitcoin or $50 million, and Karpelès apparently owned 88% of the company. McMillan, *supra* note 30.

38. MtGox.com (@MtGox) TWITTER (Apr. 11, 2013, 7:29 AM), https://web.archive.org/web/20131113055800/https://twitter.com/MtGox/status/322355614414147588 ("Trading is suspended until 2013-04-12 02:00 AM UTC for market cooldown. Once back trading will be also faster.").

39. Adrian Chen, *Massive Bitcoin Business Partnership Devolves Into $75 Million Lawsuit*, GAWKER (May 2, 2013, 7:17 PM), http://gawker.com/massive-bitcoin-business-partnership-devolves-into-75-487857656.

40. *Id.*

41. *Id.*

42. *See* Seizure Warrant, In re the Seizure of the contents of one Dwolla account (No. 13-1162 SKG) (D. Md. May 14, 2013) (authorizing Michael T. McFarland, Special Agent, U.S. Homeland Security Investigations, to seize the contents of one Dwolla account held at Veridian Credit Union).

43. *See id.* at 2 ("[N]either Mt. Gox nor the subsidiary, Mutul Sigillum LLC, is registered as a Money Service Business."). *See also* Uniting and Strengthening America by Providing Appropriate Tools to Intercept and Obstruct Terrorism ("USA PATRIOT Act") Act of 2001 § 373(a), 18 U.S.C. § 1960(a) (2015) (prohibiting unlicensed money transmitting business); *id.* § 373(b), 18 U.S.C. § 981(a)(1)(a) (allowing the seizure of illegally transmitted funds).

44. McMillan & Metz, *supra* note 37.

services business ("MSB") license from FinCEN.[45]

In November 2013, Mt. Gox customers were experiencing delays of weeks to months in withdrawing funds from their accounts and cashing out had become difficult to impossible.[46] Things grew worse, and on February 7, 2014, Mt. Gox halted all withdrawals.[47] Less than two weeks later, it suspended trading, closed its website and exchange service, and filed for a form of bankruptcy protection under Japanese law to allow courts to seek a buyer.[48] In April 2014, the company began liquidation proceedings.[49] It announced that around 850,000 bitcoin, valued at roughly $480 million at the time, belonging to customers and the company, was missing and likely stolen.[50] Although 200,000 bitcoin have since been "found," the reasons for the disappearance—theft, fraud, mismanagement, or a combination of these—remain unclear.[51] Shortly before Mt. Gox's website went offline, six other major bitcoin exchanges released a joint statement distancing themselves from Mt. Gox amid steep drops in bitcoin prices and new demands for government regulation of the bitcoin industry.[52]

45. Vitalik Buterin, *MtGox Gets FinCen MSB License*, BITCOIN MAGAZINE (June 29, 2013, 3:38 PM), https://bitcoinmagazine.com/articles/mtgox-gets-fincen-msb-license-1372534713/.

46. McMillan & Metz, *supra* note 37.

47. Matt Clinch, *Bitcoin Plummets 20% After Major Exchange Halts Withdrawals*, CNBC (Feb. 7, 2014, 6:49 AM), http://www.cnbc.com/2014/02/07/bitcoin-plummets-20-after-major-exchange-halts-withdrawals.html.

48. Abrams et al., *supra* note 34; Ben McLannahan, *Bitcoin Exchange Mt Gox Files for Bankruptcy Protection*, FIN. TIMES (Feb. 28, 2014), https://www.ft.com/content/6636e0e8-a06e-11e3-a72c-00144feab7de.

49. Sam Byford, *Mt. Gox Abandons Rebuilding Plans and Files for Liquidation: WSJ*, THE VERGE (Apr. 16, 2014, 1:51 AM), http://www.theverge.com/2014/4/16/5619636/mt-gox-asks-for-permission-to-liquidate; Takashi Mochizuki & Katy Stech, *Mt. Gox Files for Liquidation*, WALL ST. J. (updated Apr. 16, 2014, 2:22 AM), http://www.wsj.com/news/articles/SB10001424052702303663604579504691512965308.

50. Carter Dougherty & Grace Huang, *Mt. Gox Seeks Bankruptcy After $480 Million Bitcoin Loss*, BLOOMBERG (Feb. 28, 2014, 2:59 PM), https://www.bloomberg.com/news/articles/2014-02-28/mt-gox-exchange-files-for-bankruptcy.

51. Sophie Knight, *Mt. Gox Says it Found 200,000 Bitcoins in 'Forgotten' Wallet*, REUTERS (Mar. 21, 2014, 4:30 PM), http://www.reuters.com/article/us-bitcoin-mtgox-wallet-idUSBREA2K05N20140321. Mt. Gox's creditors are skeptical about the 'missing" bitcoins for two main reasons. *Id.* First, Mt. Gox announced the missing bitcoin wallet after an Illinois judge allowed some of the bitcoin exchange's movements to be tracked. *Id.* Also, blockchain evidence is available to prove Mt. Gox knew where the bitcoins were stored. *Id.*

52. Fred Ehrsam et al, *Joint Statement Regarding Mt. Gox*, THE COINBASE BLOG (Feb. 24, 2014), http://coinbase.tumblr.com/post/77766809700/joint-statement-regarding-mtgox.

III. U.S. LEGAL AND REGULATORY INITIATIVES

A. The Financial Crime Enforcement Network

1. Virtual Currency Guidance

FinCEN, charged with the mission of "safeguard[ing] the [U.S.] financial system from illicit use and combat[ing] money laundering,"[53] has issued key federal guidance clarifying how it will apply the Bank Secrecy Act ("BSA") and other anti-money laundering ("AML") laws to virtual currencies.[54] Following FinCEN's 2011 final rule on money services business, FinCEN released guidance on the application of FinCEN's regulation to parties administering, exchanging, or using virtual currencies.[55] In general, the guidance provides that "administrators and exchangers" of "convertible virtual currencies" are subject to the money transmitters ("MT") rules, while "users" of virtual currencies are exempt.[56]

The guidance defines a *user* as "a person that obtains virtual currency to purchase goods or services.[57] An *exchanger* is a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency."[58] "An *administrator* is a person engaged as a business in issuing (putting into circulation) a virtual currency, and who has the authority to redeem (to withdraw from circulation) such virtual currency."[59]

53. *Mission*, FIN. CRIMES ENF'T NETWORK, DEP'T OF TREASURY, https://www.fincen.gov/about/mission. FinCEN will also "promote national security through the collection analysis and dissemination of financial intelligence and strategic use of financial authorities." *Id.*

54. Bank Secrecy Act Regulations; Definitions and Other Regulations Relating to Money Services Businesses, 76 Fed. Reg. 43585 (July 21, 2011) (to be codified at 31 C.F.R. pts. 1010, 1021, 1022).

55. FIN. CRIMES ENF'T NETWORK, DEP'T OF TREASURY, FIN-2013-G001, APPLICATION OF FINCEN'S REGULATIONS TO PERSON'S ADMINISTERING, EXCHANGING, OR USING VIRTUAL CURRENCIES 1 (2013).

56. *Id.*

57. *Id.* at 2.

58. *Id.*

59. *Id.* "A user who obtains convertible virtual currency and uses it to purchase real or virtual goods or services is not a money servicing business ("MSB") under FinCEN's regulations. *Id.* "Such activity, in and of itself, does not fit within the definition of 'money transmission services' and therefore is not subject to FinCEN's registration, reporting, and recordkeeping regulations for MSBs." *Id.*

> An administrator or exchanger that (1) accepts and transmits a convertible virtual currency or (2) buys or sells convertible virtual currency for any reason is a money transmitter under FinCEN's regulations, unless a limitation to or exemption from the definition applies to the person. FinCEN's regulations define the term "money transmitter" as a person that provides money transmission services, or any other person engaged in the transfer of funds. The term money transmission services means 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.
>
> The definition of a money transmitter does not differentiate between real currencies and convertible virtual currencies. Accepting and transmitting anything of value that substitutes for currency makes a person a money transmitter under the regulations implementing the BSA.[60]

FinCEN divided the activities of administrators and exchangers regarding convertible virtual currencies into three categories.[61] First, dealing in *e-currencies* and *e-precious metals* by transmitting funds between a customer and a third party that is not part of the currency or commodity transaction.[62] Second, administering a *centralized* convertible virtual currency and facilitating the transfer of virtual convertible currency between locations, or from one person to another in a centralized repository.[63] Third, transacting in a *de-centralized* convertible virtual currency by (i) creating units of a virtual convertible currency with no central repository and (ii) selling those units to another person for real currency or its equivalent; or by facilitating the exchange of a de-centralized convertible virtual currency from one person to a

60. *Id.* at 2–3 (internal quotation marks omitted).
61. *Id.*
62. *Id.*
63. *Id.* at 4.

third party for currency, funds, or other value.[64]

FinCEN also stated that because a convertible virtual currency is not a "real" currency, FinCEN's Prepaid Access regulations do not apply to a person who accepts or transmits a convertible virtual currency.[65] The definition of "prepaid access" under the regulations is limited to "access to funds or the value of funds."[66] Similarly, FinCEN's regulations regarding dealers in foreign exchange do not apply to accepting real currency in exchange for convertible virtual currency, and vice versa, because those regulations only apply to the exchange of one real currency for another real currency.[67]

FinCEN's new guidance did not eliminate existing exceptions to the definition of money transmitter. According to FinCEN, determining if a person is a "money transmitter" still depends on the specific facts and circumstances surrounding a person's activity.[68] A person who accepts currency, funds, or other value from one person and transmits such currency, funds, or other value to another location or person, is still not a money transmitter if the person is:

- A provider of network access services to money transmitters;
- A provider of bill payment services between a creditor or seller;
- An operator of clearance and settlement systems among regulated institutions;
- A transporter of physical currency (such as armored car services and couriers);
- A prepaid access provider; or
- A person who accepts and transmits funds only integral to the sale of goods or the provision of services (other than money transmission services) by the person who is accepting and transmitting the funds.[69]

64. *Id.* at 5.
65. *Id.*
66. *Id.* at 5 n.18 (citing and quoting 31 C.F.R. § 1010.100(ww) (2016)).
67. *Id.* at 5–6.
68. *Id.* at 3 n. 10 (citing 31 C.F.R. § 1010.100(ff)(5)(ii)).
69. *Id.*; 31 C.F.R. § 1010.100(ff)(5)(B)(ii)(A)–(F).

As such, a person meeting the definition of an "administrator" or "exchanger" of a convertible virtual currency would not be subject to FinCEN regulation if one of the exceptions above applies.

2. Ripple Labs Consent Decree

On May 5, 2015, virtual currency exchanger, Ripple Labs ("Ripple") entered into a consent decree with FinCEN, under which Ripple admitted to conduct that violated the Bank Secrecy Act and other AML laws[70] and agreed to take remedial measures to prevent future violations.[71] Concurrently, Ripple entered into an almost identical settlement agreement with the U.S. Attorney's Office for the Northern District of California, U.S. Department of Justice ("DOJ"), under which Ripple further agreed to cooperate with the DOJ in any investigations into and prosecutions of AML violations associated with Ripple's conduct.[72] As part of the settlement agreement FinCEN assessed a $700,000 civil money penalty ("CMP") against Ripple, and Ripple forfeited an additional $450,000 to the DOJ.[73]

As FinCEN's first BSA action against a virtual currency exchange the size of the CMP was viewed as substantial given that in recent years other money transmission businesses have been fined smaller amounts for repeated AML violations over several years; notably, Ripple and its affiliates were operating as MTs for only two years.[74] The statement of facts and violations attached to the consent decree and settlement agreement sent a clear message that FinCEN and the DOJ expect full compliance by virtual currency companies with all

70. For statutory and regulatory citations, as well as guidance, see FED. DEPOSIT INS. CORP., BANK SECRECY ACT, ANTI-MONEY LAUNDERING, AND OFFICE OF FOREIGN ASSETS CONTROL, DSC RISK MGMT. MANUAL OF EXAMINATION POLICIES, https://www.ffiec.gov/bsa_aml_infobase/documents/FDIC_DOCs/BSA_Manual.pdf.

71. *See* Ripple of Labs, Inc., No-2015-05 (U.S. Dep't of the Treasury, Fin. Crimes Enf't Div. May 5, 2015) (assessment of civil money penalty). In entering into the consent decree, Ripple admitted to: (1) willful violations of the BSA's MSB registration, program and reporting requirements, as well as federal criminal law violations; (2) failure to implement and maintain an AML program that was reasonably designed to prevent it from being used to facilitate money laundering and the financing of terrorist activities; and (3) failure to report suspicious activity related to several financial transactions. *Id.* at 2–3.

72. *Id.* at 2.

73. *Id.* at 3.

74. *See id.* attach. a, at 1 (describing how Ripple Labs' subsidiary XRP Fund II, LLC was incorporated in 2013, which is two years before the penalty was passed down).

BSA/AML requirements applicable to MTs.[75] FinCEN cited its recent guidance on virtual currency activities, noting that Ripple's virtual currency sales activities obliged Ripple to register as an MT and to fulfill certain requirements applicable to MTs.[76] These requirements include maintenance of an AML policy and the appointment of an AML compliance officer, as well as numerous recordkeeping, monitoring, and reporting requirements.[77] Although Ripple did eventually fulfill many of these requirements after becoming an MT, it was penalized for the interim period of several months when it was not compliant, as well as for failing to adhere to the requirements of its AML policy in connection with several sales.[78]

The consent decree and settlement agreement also specified certain remedial measures to be taken by Ripple, including: (1) creation and implementation of an AML training program; (2) an external audit of Ripple's AML program; (3) enhancement of Ripple's AML screening and monitoring capabilities; and (4) retroactive examination of transactions for previously-undetected money laundering activity, along with filing any required Suspicious Activity Reports on such activity.[79] Despite mandating general compliance with BSA/AML laws, the remedial measures also specifically call for compliance with the so-called Funds Travel Rule ("Travel Rule").[80]

The Travel Rule generally requires regulated financial institutions, including MTs, to retain and include in payment instructions certain information related to the payment and its participants, so that a funds transfer can be traced from end to end even if it passes through multiple intermediary financial institutions.[81] Traditional payment systems such as credit card, ACH, and wire are closed systems set up to support the entry and transmission of the required information fields between participants, who must be regulated

75. *See id.* attach. a, at 4–6 (listing violations of the AML/BSA requirements).
76. *Id.* attach. a, at 4.
77. *Id.* attach. b, at 3–4.
78. *Id.* attach. a, at 5.
79. *Id.* attach. b, at 2–4.
80. *Id.* attach. b, at 4.
81. *See* 31 C.F.R. § 1010.410(e) (2016) ("Each agent, agency, branch, or office located within the United States of a financial institution other than a bank is subject to the requirements of this paragraph (e) with respect to a transmittal of funds in the amount of $3,000 or more . . . .").

depository institutions.[82] "However, . . . most cryptocurrencies are open systems and users do not need to go through a financial institution in order to effect transactions."[83] Commentators have observed that finding out whether any given counterparty is a financial institution and complying with the resulting Travel Rule requirements, while maintaining the privacy—and indeed personal safety—of individuals, presents an ongoing challenge for cryptocurrency businesses.[84]

B. New York Department of Financial Services–Creating a BitLicense and Trust Company Digital Currency Exchange Charter

On August 12, 2013, the New York Department of Financial Services ("NYDFS"), citing New York's "long history of promoting technical innovation—both within the financial sector and across our economy," announced that it had launched an inquiry into the appropriate regulatory guidelines that it should put in place for virtual currencies.[85] Based on the fact that it had already conducted "significant preliminary work" regarding the announced inquiry, including making requests for information from virtual currency firms,[86] the NYDFS expressed concern that "at a minimum," "virtual currency exchanges may be engaging in money transmission as defined in New York law, an activity that is licensed and regulated by [NY]DFS."[87]

While referencing the unique opportunities and challenges presented by Bitcoin and other virtual currencies, NYDFS nevertheless stressed that instances "where the cloak of anonymity provided by virtual currencies has helped segment dangerous criminal activity, such as drug smuggling, money laundering, gun running, and child

82. *Id.*

83. Dsu-Wei Yuen, *FinCEN and Department of Justice Settle Anti-Money Laundering Charges Against Crypto-Currency Company Ripple Labs*, DAVIS WRIGHT TREMAINE LLP: PAYMENT LAW ADVISOR (May 12, 2015), http://www.paymentlawadvisor.com/2015/05/12/fincen-and-department-of-justice-settle-anti-money-laundering-charges-against-crypto-currency-company-ripple-labs/.

84. *See, e.g.*, *id.*

85. BENJAMIN M. LAWSKY, N.Y. STATE DEP'T. OF FIN. SERVS., NOTICE OF INQUIRY ON VIRTUAL CURRENCIES 1 (Aug. 12, 2013), http://www.dfs.ny.gov/about/hearings/vc_01282014/notice_20130812_vc.pdf.

86. *Id.*

87. *Id.*

pornography."[88] As such, NYDFS observed that "[i]f virtual currencies remain a virtual Wild West for narcotraffickers and other criminals, that would not only threaten [U.S.] national security but also the very existence of the virtual currency industry as a legitimate business enterprise."[89]

As such, NYDFS cited three reasons for "putting in place regulatory safeguards that would be beneficial to the 'long-term strength' of the virtual currency industry:"

> First, safety and soundness requirements help build greater confidence among customers that the funds that they entrust to virtual currency companies will not get stuck in a digital black hole. . . . Taking steps to ensure that these transactions—particularly redemptions—are processed promptly is vital to earning the faith and confidence of customers.
>
> Second, serving as a money changer of choice for terrorists, drug smugglers, illegal weapons dealers, money launderers, and human traffickers could expose the virtual currency industry to extraordinarily serious criminal penalties. Taking steps to root out illegal activity is both a legal and business imperative for virtual currency firms.
>
> Finally, both virtual currency companies—and the currencies themselves—have received significant interest from investors and venture capital firms. Similar to any other industry, greater transparency and accountability is critical to promoting sustained, long term investment.[90]

On November 14, 2013, the NYDFS announced, "as the next step in [its] inquiry," that it would hold a public hearing on virtual currency regulation.[91] With an asserted focus on the interconnection

88. *Id.*
89. *Id.*
90. *Id.* at 2.
91. Rob Wile, *New York Will Be Holding Hearings on Bitcoin*, BUSINESS INSIDER (Nov. 4, 2013, 2:43 PM), http://www.businessinsider.com/new-york-to-hold-hearings-on-

between money transmission regulations and virtual currency, NYDFS noted that the hearings would also focus on the "possibility and feasibility of NYDFS issuing a 'BitLicense' specific to virtual currency transactions and activities, which would include anti-money laundering and consumer protection requirements for licensed entities."[92]

The NYDFS conducted a year-long process, including two days of public hearings on January 28–29, 2014, where NYDFS heard from virtual currency investors, law enforcement agencies, and academics on virtual currency issues. Subsequently, in March 2014, the NYDFS announced a public order ("NYDFS VC Order") initiating a process for accepting licensing applications for virtual currency exchanges under the N.Y. banking laws.[93] Citing a demonstrated need for stronger oversight of virtual currency exchanges after the Mt. Gox collapse, NYDFS opted to offer a digital currency exchange banking charter pursuant to its authority to grant limited, special purpose trust company charters.[94] The NYDFS VC Order also stressed that the new charter should contain strong legal and operational controls, including "robust BSA/AML requirements."[95]

Following submission of a number of applications, on May 7, 2015, NYDFS granted a charter to itBit Trust Company LLC ("itBit") to operate as a commercial bitcoin exchange, the first virtual currency company to receive such a charter from NYDFS.[96] In granting approval, the NYDFS press release stressed that it had conducted a "rigorous review" of the application, including, but not limited to, the company's "anti-money laundering, capitalization, consumer protection and cyber security standards."[97] Furthermore, the release noted that

bitcoin-2013-11 (containing full text of NYDFS press release).

92. *Id.*

93. N.Y. DEP'T OF FIN. SERVS., IN RE VIRTUAL CURRENCY EXCHS., ORDER PURSUANT TO NEW YORK BANKING LAW §§ 2-B, 24, 32, 102-A AND 4001-B AND FINANCIAL SERVICES LAW §§ 301(C) AND 302(A), (2014).

94. *Id.*

95. *Id.*

96. Press Release, N.Y. Dep't of Fin. Servs., NYDFS Grants First Charter to a New York Virtual Currency Company (May 7, 2015) [hereinafter itBit Press Release], http://www.dfs.ny.gov/about/press/pr1505071.htm; *see also* itBit Trust Company, LLC Authorization Certificate, N.Y. Dep't of Fin. Servs. (May 6, 2015), http://www.dfs.ny.gov/banking/auth_cert_itBit_052015.pdf.

97. itBit Press Release, *supra* note 96. Since approving the itBit Charter, the NYDFS approved a second virtual currency exchange charter. *See* Press Release, N.Y. Dep't of Fin.

itBit would be required to meet the obligation for operating a trust company under N.Y. law, as well as those under the final N.Y. BitLicense regulations.[98]

Prior to the itBit approval, on July 17, 2014, NYDFS had proposed for public comment a BitLicense regulatory framework for virtual currency firms.[99] These first-of-a-kind rules provided comprehensive regulatory regimes applicable to a wide variety of virtual currency businesses.[100] The framework, which includes consumer protection, anti-money laundering, NYDFS examination and suspension requirements, and cyber security rules, books, records, financial disclosure capital adequacy, and audit requirements, was met with mixed reaction by the virtual currency industry. The industry responded with concerns that regulations could stifle innovation, while realizing that the then-recent Mt. Gox scandal had reinforced regulatory and law enforcement concerns about the virtual currency business.[101] In February 2015, NYDFS published an updated BitLicense framework that incorporated feedback from the first round of public comments.[102] The updated proposal, which was adopted in June 2015, contained a series of changes and clarifications, including the creation of a two-year transitional BitLicense to assist start-ups.[103]

Servs., NYDFS Grants Charter to "Gemini" Bitcoin Exchange Founded by Cameron and Tyler Winklevoss (Oct. 5, 2015), http://www.dfs.ny.gov/about/press/pr1510051.htm (describing the charter issued and giving a timeline of NYDFS virtual currency regulation).

98. itBit Press Release, *supra* note 96.

99. Proposed Rule on the Regulation of the Conduct of Virtual Currency Businesses, 29 N.Y. Reg. 14 (July 23, 2014). Full text of the BitLicense Proposal is available from the NYDFS's website at http://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf. *See also* Press Release, N.Y. Dep't of Fin. Servs., NYDFS Releases Proposed BitLicense Regulatory Framework for Virtual Currency Firms (July 17, 2014), http://www.dfs.ny.gov/about/press/pr1407171.htm.

100. *See* 29 N.Y. Reg. 15. NYDFS specifically referenced the fact that the same week NYDFS issued its notice of inquiry on virtual currencies a national magazine published an interview with an alleged key figure in the "black market drug website" Silk Road, who cited the virtual currency Bitcoin as a key ingredient in the site's efforts to commit illegal acts. *See* Greenberg, *supra* note 22; *supra* Part II.B.1. and accompanying notes.

101. *Id.*

102. N.Y. Dep't of Fin. Servs., Notice of Revised BitLicense Regulatory Framework, http://www.dfs.ny.gov/legal/regulations/rev_bitlicense_reg_framework.htm; *see also* Regulation of the Conduct of Virtual Currency Business, 37 N.Y. Reg. 17, 18 (Feb. 25, 2015) (revising NYDFS BitLicense regulations).

103. 37 N.Y. Reg. 8 (June 24, 2015).

C. The Office of the Comptroller of the Currency–The Fintech Charter

In the wake of a multi-year effort by NYDFS to pioneer the establishment of a regulatory framework for a state chartered, special purpose, fintech trust charter focused on virtual currency business activities, the Office of Comptroller of the Currency (the "OCC") has sought to take a lead in this area by announcing, in 2016, initiatives designed to create a special purpose national bank charter for fintech business activities. In August 2015, the OCC announced it would "develop a comprehensive framework to improve the OCC's ability to identify and understand trends and innovations in financial services, as well as the evolving needs of consumers of financial services."[104] Following the announcement, the OCC published a paper in March 2016 entitled, *Supporting Responsible Innovation in the Federal Banking System: An OCC Perspective* ("OCC Innovation Paper").[105]

Noting, among other things, the broad innovation in financial services taking place "outside the banking industry, often in unregulated or lightly regulated fintech companies," the OCC Innovation Paper stressed that fintech companies are "growing rapidly, and attracting increase[ed] investment" both in the U.S. and globally.[106] The OCC Innovation Paper concluded that bank and nonbank innovators, through "strategic and prudent collaboration," could benefit by employing their respective advantages" nonbank innovators can gain access to funding sources and large customer bases" and "banks can gain access to new technologies."[107]

The OCC Innovation Paper became the springboard for the OCC's subsequent efforts to create a fintech charter. To date, however, a number of issues have arisen with respect to the OCC's project. First, while OCC special purpose banks such as trust and credit card banks are exempt from parent company regulation under the Bank Holding

104. OFFICE OF THE COMPTROLLER OF THE CURRENCY, SUPPORTING RESPONSIBLE INNOVATION IN THE FEDERAL BANKING SYSTEM: AN OCC PERSPECTIVE 3 (2016) [hereinafter OCC INNOVATION PAPER], https://www.occ.gov/publications/publications-by-type/other-publications-reports/pub-responsible-innovation-banking-system-occ-perspective.pdf.

105. *Id*.

106. *Id*.

107. *Id*. at 4.

Company Act (the "BHCA"),[108] it is not clear whether the Federal Reserve Board (the "FRB") would be comfortable with the creation of a new bank charter exempt from the BHCA. Second, state regulators have raised significant concerns as to whether the project is a preemption Trojan horse, i.e., a way to route nonbank lending and other activities around state usury and other consumer laws through a national charter.[109] Third, virtual currency companies and trade groups have urged that such charters be structured so as to be user-friendly for virtual currency activities.[110] Finally, there has been speculation about potential FDIC concerns about regulation and receivership of non-depository fintech charters; notably, the OCC recently proposed a rule that would make clear that the OCC would handle all OCC uninsured national bank failures.[111]

Nonetheless, on December 7, 2016, the OCC announced that it would move forward with chartering fintech companies that offer bank products and services to become special purpose national banks.[112] Accompanying this decision, the OCC published a paper entitled, *Exploring Special Purpose National Bank Charters for Fintech Companies*[113] ("OCC Fintech Charter Paper"), discussing the issues and

108. Bank Holding Company Act of 1956, 12 U.S.C. 1841 et seq. (2015).

109. *See* Lalita Clozel, *OCC Fintech Charter Tramples States Rights: N.Y. Superintendent*, AM. BANKER (Jan. 18, 2017, 3:18 PM) (noting that the applicable law to fintech companies is unclear); Lalita Clozel, *State Regulators Balk at OCC Fintech Charter*, AM. BANKER (Aug. 19, 2016, 5:08 PM) (noting that a national fintech charter could weaken state authority over consumer protection laws).

110. *See, e.g.*, Peter Van Valkenburgh & Jerry Brito, *Comments to the Office of the Comptroller of the Currency on Supporting Responsible Innovation*, COIN CENTER (May 27, 2016).

111. *See* Proposed Rule on Receiverships for Uninsured National Banks, 81 Fed. Reg. 62835 (proposed on Sept. 13, 2016) (to be codified at 12 C.F.R. Part 51) (stating that the OCC would conduct receiverships for banks that are not insured by the FDIC). In that rulemaking, referring the OCC Innovation Paper, the OCC stated that–in undertaking the rulemaking, one of its reasons it is considering how best to implement a regulatory framework that is "receptive to responsible innovation, such as an advance in financial technology," and "in conjunction with this effort, considering whether a special purpose charter could be an appropriate entity for the delivery of banking services in new ways," and thus, requesting comments on the utility of proposed necessary rules to such a special purpose bank. *Id.* at 62837.

112. *See* Press Release, Office of the Comptroller of the Currency, OCC to Consider Fintech Charter Applications, Seeks Comment, (Dec. 2, 2016) [hereinafter OCC Fintech Press Release], https://www.occ.treas.gov/news-issuances/news-releases/2016/nr-occ-2016-152.html; *see also* Thomas J. Curry, *supra* note 1, at 3 ("[T]he OCC will move forward with chartering financial technology companies that offer bank products and services and meet our high standards and chartering requirements.").

113. OFFICE OF THE COMPTROLLER OF THE CURRENCY, EXPLORING SPECIAL PURPOSE

conditions that the agency will consider in granting special purpose national bank charters, with a request for public comment.[114] In so doing, the OCC raised a number of significant points and issues related to attributes and regulation of the new charter.

First, the OCC identified the potential universe of fintech companies that may explore a special purpose charter—such as marketplace lenders providing consumer and small business loans, payment-related services, companies engaged in digital currencies and distributed ledger technology, and financial planning and wealth management products and services.[115] Second, OCC fintech chartered banks "would be held to the same rigorous standards of safety and soundness, fair access and fair treatment of customers that apply to all national banks."[116] Third, the OCC "may need to account for differences in business models and the applicability of certain laws."[117] It specifically cited as an example "a fintech company with a special purpose national bank charter that does not take deposits, and therefore is not insured by the Federal Deposit Insurance Corporation ("FDIC"), [and thus] would not be subject to laws that apply only to depository institutions."[118] As such, the OCC Fintech Charter Paper clarifies prior confusion in this area by making clear that OCC's policy is that special purpose national banks that do not engage in deposit taking are not required to obtain deposit insurance.[119]

Fourth, notably, the OCC did not take the position that creating a national bank fintech charter required a notice and public comment rulemaking process, nor is the agency proposing one. As such, the OCC

NATIONAL BANK CHARTERS FOR FINTECH COMPANIES (2016) [hereinafter OCC FINTECH CHARTER PAPER], https://www.occ.gov/topics/bank-operations/innovation/comments/special-purpose-national-bank-charters-for-fintech.pdf.

114. *Id.* at 15 (public comments were submitted through January 15, 2017).

115. *Id.* at 2.

116. *Id.*

117. *Id.*

118. *Id.*

119. *See id.* Notably after some prior confusion about whether the OCC would require deposit insurance for national trust banks, the OCC's recent Proposed Trust Bank Receivership Rules also stated: "There are only a small number of uninsured national banks in operation today. The OCC, however, retains the authority to grand new charters to entities whose business plan does not call for them to obtain deposit insurance if the OCC determines that the entities have a reasonable chance of succeeding and can operate in a safe and sound manner, among other considerations." Proposed Rule on Receiverships for Uninsured National Banks, 81 Fed. Reg. 62835 (proposed on Sept. 13, 2016) (to be codified at 12 C.F.R. Part 51).

will be issuing such charters under its existing authority to grant special purpose national bank charters.[120] Whether this position opens the OCC to the possibility of legal challenges regarding its authority to do so without a rulemaking process subject to the Administrative Procedure Act remains to be seen. Fifth, a special purpose national bank that conducts administrative activities other than the trust and fiduciary activities "must conduct at least one of the following core banking functions: receiving deposits, paying checks, or lending money."[121] Interestingly, the OCC generally observed that "there is no legal limitation on the type of 'special purpose' for which a national bank charter may be granted, so long as the entity engages fiduciary activities or in receiving deposits, paying checks or lending money."[122] In so doing, it also stated that "the OCC has the legal authority to construe these activities to include a wide range of bank permissible technology-based innovations in financial services"—including considering "on a case-by-case basis the permissibility of a new activity that a company seeking a special purpose charter wishes to conduct."[123]

Sixth, "in general, a special purpose national bank will be subject to the same laws, regulations, examinations, reporting requirements, and on-going regulation and supervision as other national banks."[124] Other laws that will apply to special purpose national banks include: industry laws, lending and consumer financial laws, BSA and AML laws, OFAC rules and sanctions, "prohibitions on engaging in unfair or deceptive acts or practices under section 5 of the Federal Trade Commission Act and unfair, deceptive, or abusive acts or practices under section 1036 of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act") . . . and bank chartering regulations and licencing policies."[125] Seventh, "a special purpose

120. OCC FINTECH CHARTER PAPER *supra* note 113, at 3; *see also* National Bank Act §§ 324-5138, 12 U.S.C. §§ 1–26 (2012).; Home Owners' Loan Act §§ 301–375, 12 U.S.C. §§ 1461–69 (OCC authority to grant national bank charters, which the OCC has interpreted to include special purpose national banks).

121. OCC FINTECH CHARTER PAPER, *supra* note 116, at 3; *See also* Organizing a National Bank or Savings Association, 12 C.F.R. § 5.20(e)(1) (required banking activities).

122. OCC FINTECH CHARTER PAPER *supra* note 113, at 3–4.

123. OCC FINTECH CHARTER PAPER *supra* note 113, at 4.

124. OCC FINTECH CHARTER PAPER *supra* note 113, at 5.

125. OCC FINTECH CHARTER PAPER *supra* note 113, at 5. *See also* Rules, Policies and Procedures for Corporate Activities, 12 C.F.R. Part 5 (2012) (OCC bank chartering paper); OFFICE OF THE COMPTROLLER OF THE CURRENCY, COMPTROLLER'S LICENSING MANUAL: CHARTERS (2016), https://www.occ.gov/publications/publications-by-type/licensing-

national bank also has the same status and attributes under federal law as a full service national bank;" notably this includes limits on state visitorial powers, "federal preemption (including the OCC preemption regulations) and federal judicial precedents to determine if or how a state law applies,"[126] and all "hot button" issues addressed in the Dodd-Frank Act.[127] Eighth, the Community Reinvestment Act ("CRA") and certain provisions of the Federal Deposit Insurance Act that only apply to depository institutions would not apply to an uninsured special purpose trust bank.[128]

Ninth, coordination with other regulators may be required, such as the FRB to become members of the Federal Reserve System and meet requirements of the BHCA,[129] the FDIC where a fintech company proposes to access deposits other than trust funds, and the Consumer Financial Protection Bureau for compliance with federal consumer financial laws.[130] Tenth, the OCC sets its "baseline supervising expectations" to meet "high supervisory standards."[131] Baseline supervisory expectations stress, among other things, the importance of a "detailed business plan, governance, capital, liquidity, compliance risk management, financial inclusion, and recovery resolution planning."[132]

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manuals/charters.pdf.

126. OCC FINTECH CHARTER PAPER *supra* note 113, at 5.

127. In this regard, the OCC stated:

> For example, under these statues, rules and precedents, state laws would not apply if they would require a national bank to be licensed in order to engage in certain types of activity or business. Examples of state laws that *would* generally apply to national banks include state laws on anti-discrimination, fair lending, debt collection, taxation, zoning, criminal laws, and torts. In addition, any other state laws that only incidentally affect national banks' exercise of their federally authorized powers to lend, take deposits, and engage in other federally authorized activities are not preempted. Moreover, the OCC has taken the position that state laws aimed at unfair or deceptive treatment of customers apply to national banks.

OCC FINTECH CHARTER PAPER, *supra* note 113, at 5. *See also* Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") § 1044, 12 U.S.C. § 25b (2012) (state law preemption standards for national banks).

128. *Id.*

129. For example, qualifications for one of the exemptions from the definition of "bank" within the BHCA, and thus, any parent company or control entity is exempt from regulation as a bank holding company. *See* Bank Holding Company Act § 2, 12 U.S.C. § 1841 (2012) (exemptions from "bank" definition under the BHCA such as for trust banks).

130. OCC FINTECH CHARTER PAPER, *supra* note 113, at 6-8 and accompanying notes.

131. OCC FINTECH CHARTER PAPER, *supra* note 113, at 8.

132. OCC FINTECH CHARTER PAPER, *supra* note 113, at 8 and accompanying notes.

Eleventh, distinct from any CRA obligatory, special purpose bank applicants that seek to engage in lending activities must demonstrate a commitment to the "global issue" of "financial inclusion" that supports "fair access to financial services and fair treatment of customers."[133] Twelfth, the OCC will review business plans to include alternate business "recovery and exit strategies," stress test scenarios, and worst-case resolution plans.[134] The mandated planning requiring stress tests and resolution planning resembles the requirements applicable only to systematically important financial institutions ("SIFIs") under the Dodd-Frank Act.[135]

Thirteenth, as part of the OCC chartering process, the OCC will impose certain standard requirements when a bank is granted preliminary approval, as well as other conditions as appropriate.[136] Fourteenth, as has been done with other special purpose national banks such as trust funds, the OCC may modify or adapt capital and other legal requirements.[137] These changes would lead to a process of negotiation on appropriate capital levels on certain business activities, although any new OCC precedents will be revised as the agency grants new charters for particular business models.[138] Finally, the OCC requested public "feedback" (ostensibly as opposed to "comments" if it were seeking notice and comment in a public rulemaking, rather than a paper) on a wide range of issues.[139]

133. OCC FINTECH CHARTER PAPER, *supra* note 113, at 11–13 and accompanying notes; *see generally* OCC FINTECH CHARTER PAPER, *supra* note 116, at 12 n.30 (for an analysis of financially unserved and financial inclusion).

134. OCC FINTECH CHARTER PAPER, *supra* note 113, at 12–13.

135. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) § 204(a), 12 U.S.C. § 5384(a)(1) (2015) (stating that the section "provide(s) the necessary authority to liquidate failing financial companies that pose a significant risk to the financial stability of the United States in a manner that mitigates such risk and minimizes moral hazard").

136. OCC FINTECH CHARTER PAPER, *supra* note 113, at 14 and accompanying notes; *see also, e.g.*, OFFICE OF THE COMPTROLLER OF THE CURRENCY, CONDITIONAL APPROVAL #1143 (Jan. 2016).

137. OCC FINTECH CHARTER PAPER, *supra* note 113, at 14 and accompanying notes.

138. OCC FINTECH CHARTER PAPER, *supra* note 113, at 14 and accompanying notes (stating that "the OCC would consider adapting requirements applicable to a fintech applicant for a special purpose national bank charter to the extent consistent with applicable law").

139. OCC FINTECH CHARTER PAPER, *supra* note 113, at 15–16. Specifically, the OCC asked for feedback regarding the following:

1. What are the public policy benefits of approving fintech companies to operate under a national bank charter? What are the risks?

Within a few days of the announcement, the NYDFS Superintendent issued a public statement strongly opposing the charter and any efforts "to federalize what states have been doing–and doing well–for over a quarter of a century," asserting that "[h]istory has demonstrated that states, not the federal government, have the requisite knowledge and experience to effectively regulate nondepository financial services providers and guard against predatory and abusive practices."[140]

2. What elements should the OCC consider in establishing the capital and liquidity requirements for an uninsured special purpose national bank that limits the type of assets it holds?
3. What information should a special purpose national bank provide to the OCC to demonstrate its commitment to financial inclusion to individuals, businesses and communities? For instance, what new or alternative means (e.g., products, services) might a special purpose national bank establish in furtherance of its support for financial inclusion? How could an uninsured special purpose bank that uses innovative methods to develop or deliver financial products or services in a virtual or physical community demonstrate its commitment to financial inclusion?
4. Should the OCC seek a financial inclusion commitment from an uninsured special purpose national bank that would not engage in lending, and if so, how could such a bank demonstrate a commitment to financial inclusion?
5. How could a special purpose national bank that is not engaged in providing banking services to the public support financial inclusion?
6. Should the OCC use its chartering authority as an opportunity to address the gaps in protections afforded individuals versus small business borrowers, and if so, how?
7. What are potential challenges in executing or adapting a fintech business model to meet regulatory expectations, and what specific conditions governing the activities of special purpose national banks should the OCC consider?
8. What actions should the OCC take to ensure special purpose national banks operate in a safe and sound manner and in the public interest?
9. Would a fintech special purpose national bank have any competitive advantages over full-service banks the OCC should address? Are there risks to full-service banks from fintech companies that do not have bank charters?
10. Are there particular products or services offered by fintech companies, such as digital currencies, that may require different approaches to supervision to mitigate risk for both the institution and the broader financial system?
11. How can the OCC enhance its coordination and communication with other regulators that have jurisdiction over a proposed special purpose national bank, its parent company, or its activities?
12. Certain risks may be increased in a special purpose national bank because of its concentration in a limited number of business activities. How can the OCC ensure that a special purpose national bank sufficiently mitigates these risks?
13. What additional information, materials, and technical assistance from the OCC would a prospective fintech applicant find useful in the application process?

OCC FINTECH CHARTER PAPER, *supra* note 113, at 15–16.

140. N.Y. DEP'T OF FIN. SERVS., STATEMENT BY N.Y. DEP'T OF FIN. SERVS. SUPERINTENDENT MARIA T. VULLO REGARDING THE OCC SPECIAL PURPOSE NATIONAL BANK CHARTER FOR FINTECH COS. (2016) http://www.dfs.ny.gov/about/press/pr1612021.htm.

D. Uniform State Law: The Regulation of Virtual Currency Business Act

In February 2016, the National Conference of Commissioners on Uniform State Laws ("NCCUSL") published a discussion draft of the Regulation of Virtual Currency Business Act ("VC Business Act").[141] As with its other similar projects, the VC Business Act is designed to provide a uniform state law governing the operation of a business, wherever located, that engages in the "virtual currency business."[142] The term virtual currency business is broadly defined to include offering virtual currency transfer and storage services, facilitating virtual currency transfers, offering the conversion of virtual currency, or otherwise offering services and products that assist residents of a state or jurisdiction to acquire, convert, or transfer virtual currency.[143] It similarly provides broad definitions of terms such as virtual currency,[144] virtual currency business activity,[145] and what constitutes a transfer of virtual currency.[146] The comments to the VC Business Act (the "Comment") note that its overall goal is to capture activities that meet the definition of "virtual currency business activity."[147]

141. NAT'L CONFERENCE OF COMM'RS ON UNIF. STATE LAWS, DRAFT REGULATION OF VIRTUAL CURRENCY BUS. ACT, (Feb. 2, 2016) [hereinafter DRAFT VC BUSINESS ACT], http://www.uniformlaws.org/shared/docs/regulation%20of%20virtual%20currencies/2016feb_RVCBA_Mtg%20Draft.pdf; *see generally* NAT'L CONFERENCE OF COMM'RS ON UNIF. STATE LAWS, DRAFT REGULATION OF VIRTUAL CURRENCY BUS. ACT (June 3, 2016) (providing a later draft of the proposed act).

142. *See* DRAFT VC BUSINESS ACT, *supra* note 141, at 1 ("This [act] governs the operation of a person, wherever located, that engages in or holds itself out as engaging in virtual currency business activity with a resident of this [state].").

143. DRAFT VC BUSINESS ACT, *supra* note 141, at §102(a)–(d).

144. DRAFT VC BUSINESS ACT, *supra* note 141, at §§102(a)–(d), 103(24), ("Virtual currency means any digital unit of value that is used as a medium of exchange or that substitutes in a transaction for money but that is not money. The term includes digital units of exchange that (i) have a centralized repository or administrator, (ii) have no centralized repository or administrator, or (iii) may be created or obtained by computing or manufacturing effort.").

145. DRAFT VC BUSINESS ACT, *supra* note 141, at § 103(25).

146. DRAFT VC BUSINESS ACT, *supra* note 141, at § 103(25), 103(19) (stating that "transfer" includes "any change in ownership, possession or power to execute or prevent transactions")

147. DRAFT VC BUSINESS ACT, *supra* note 141, at 9. The Comment noted that questions arise including whether the "virtual currency" definition should include "e-precious metals" and e-certificates for precious metals that can be transferred from one owner to another. In so doing, the Comment stated that FinCEN "issued guidance in August 2015 that extended

In considering other issues such as how to include an "on-ramp" for new entrants to the virtual currency business, de minimus exceptions, and whether to differentiate principal versus intermediary activities, the draft also presented a final question that concerned coverage or exclusion of trust companies who receive their charters and powers from states.[148] The Comment noted that New York State issued a trust company charter to itBit in 2015.[149] ItBit's ability to engage in transactions with residents of other states was challenged by other states and, thus, for this draft information about inclusion or exclusion of trust companies is "bracketed" until the Drafting Committee can further discuss this issue with particularity.[150]

As such, the Comment raises the question of what happens when one state that is participating in a reciprocal arrangement, creates a special purpose digital currency exchange trust charter, but other states do not recognize it as such.[151] To date, however, no effort has been made by states to invoke reciprocity arrangements governing the interstate activities of traditional trust companies.[152]

In this regard, the draft VC Business Act *specifically* addresses reciprocal licensing arrangements, providing three alternatives for reciprocity and instructing that "a jurisdiction should select one."[153] The draft VC Business Act also addresses a wide range of business and

its March 2013 guidance concerning what types of business activity with virtual currency render the business a 'money services business' for the purposes of federal AML requirements under 31 C.F.R. Part X." *Compare* DRAFT VC BUSINESS ACT, *supra* note 141, at 9, *with FIN-2015-R001, Application of FinCEN's Regulations to Persons Issuing Physical or Digital Negotiable Certificates of Ownership of Precious Metals*, FIN. CRIMES ENFORCEMENT NETWORK, U.S. DEP'T OF TREASURY 3 (August 14, 2015), https://www.fincen.gov/sites/default/files/administrative_ruling/FIN-2015-R001.pdf (including e-precious metals and e-certificates for precious metals),

148. DRAFT VC BUSINESS ACT, *supra* note 141, at 9.

149. DRAFT VC BUSINESS ACT, *supra* note 141, at 9.

150. DRAFT VC BUSINESS ACT, *supra* note 141, at 9.

151. DRAFT VC BUSINESS ACT, *supra* note 141, at 9.

152. *See, e.g.*, Lalita Cozel, *Are Trust Charters the Key to Simplifying Fintech Regulations*, AM. BANKER (November 8, 2016), https://www.americanbanker.com/news/are-trust-charters-the-key-to-simplifying-fintech-regulation (discussing the fact that the only two digital currency exchanges licensed by New York State as special purpose trust companies have had significant challenges making the case to regulators of their trust status outside New York, due, among other things, causing uncertain scenarios for these companies). Cozel notes that there are "uncertain scenarios in a number of states that simply do not have experience with digital currency or digital currency exchange." *Id.* (quoting V. Gerard Comizio, Fried Frank LLP).

153. DRAFT VC BUSINESS ACT, *supra* note 141, at § 203.

regulatory aspects of such businesses, including licensing and applications,[154] net worth and minimum capital requirements,[155] authority to conduct regulatory examinations,[156] cooperation and data sharing authority,[157] change in control and merger regulatory standards and approvals,[158] records maintenance,[159] confidentiality,[160] license suspension and revocation,[161] cease and desist orders,[162] civil money penalties,[163] end user disclosure protections,[164] and compliance policies with procedures.[165] Interestingly, the Committee has reserved important topics such as cyber security programs and monitoring, business continuity with disaster recovery program requirements, and permissible investments for further discussion.[166]

It remains to be seen whether the VC Business Act is timely adopted as a model code, and, if so, whether it becomes an influential model for state legislatures in adopting virtual currency legislation. However, previous model codes of the NCCUSL have made enormous contributions to national legal uniformity in many significant areas.[167] For example, model codes of corporate, commercial, and financial law that have been widely accepted and adopted by states have reduced the need for businesses to deal with different laws as they move and do business in different states.[168]

154. DRAFT VC BUSINESS ACT, *supra* note 141, at §§ 202, 203.
155. DRAFT VC BUSINESS ACT, *supra* note 141, at § 207.
156. DRAFT VC BUSINESS ACT, *supra* note 141, at § 301.
157. DRAFT VC BUSINESS ACT, *supra* note 141, at § 302.
158. DRAFT VC BUSINESS ACT, *supra* note 141, at § 303.
159. DRAFT VC BUSINESS ACT, *supra* note 141, at § 304.
160. DRAFT VC BUSINESS ACT, *supra* note 141, at § 305.
161. DRAFT VC BUSINESS ACT, *supra* note 141, at § 501.
162. DRAFT VC BUSINESS ACT, *supra* note 141, at § 502.
163. DRAFT VC BUSINESS ACT, *supra* note 141, at § 504.
164. DRAFT VC BUSINESS ACT, *supra* note 141, at § 702.
165. DRAFT VC BUSINESS ACT, *supra* note 141, at § 901.
166. *See* DRAFT VC BUSINESS ACT, *supra* note 141 at §§ 401, 402, 801, 802 [Reserved] (declining to offer guidance).
167. See generally Bruce H. Kobayashi & Larry E. Ribstein, *The Non-Uniformity of Uniform Law*, 35 J. CORP. L. 327 (2009). "[S]tates tended to widely adopt NCCUSL proposals where uniformity was efficient—that is, where the parties' conduct or transactions may be subject to the laws of several different states, making it difficult to determine at the time of the conduct, or even at the time of litigation, which state law will apply, and where the affected parties cannot easily settle these issues by contract." *Id.* at 330, 360. Conversely, developing a model code "necessitates compromises that undermine uniformity." *Id.*
168. *See id.* at 330 (discussing the value of uniform laws "where the parties' conduct or

IV. INTERNATIONAL LEGAL AND REGULATORY DEVELOPMENTS

Outside of the U.S., virtual currency laws, regulations, and policies are emerging globally. This section surveys a few select jurisdictions with significant impact on the global financial services industry: (1) the European Union ("EU"), (2) the United Kingdom ("UK"), (3) the Basel Committee on Banking Supervision, (4) China, and (5) Japan. While this survey is by no means comprehensive, only a handful of countries have specific regulations applicable to virtual currency use; at least forty jurisdictions, exclusive of the EU, have ventured to varying extents into regulation of virtual currency.[169]

A. The European Union: The European Bank Authority

In the wake of the 2008 global financial crisis, the EU established the European Banking Authority ("EBA") as an independent authority designed to, among other things, ensure effective and consolidated prudential regulation and provide supervision across the EU banking sector.[170] The purpose of the EBA "is to contribute to the creation of the European Single Rulebook in banking whose objective is to provide a single set of harmonized prudential rules for financial institutions throughout the EU."[171] Further, the EBA is

transactions may be subject to the laws of several different states").

169. *See* GLOBAL LEGAL RESEARCH CENTER, THE LAW LIBRARY OF CONGRESS, LL File No. 2014-010233, REGULATION OF BITCOIN IN SELECTED JURISDICTIONS (Jan.2014), http://www.loc.gov/law/help/bitcoin-survey/regulation-of-bitcoin.pdf (surveying bitcoin regulation in forty countries and the EU); *see also* Kashmir Hill *Bitcoin's Legality Around The World*, FORBES (January 30, 2014, 6:02 PM), http://www.forbes.com/sites/kashmirhill/2014/01/31/bitcoins-legality-around-the-world/#1e84a28379b2 (discussing the report compiled by the Law Library of Congress); Cameron Fuller *Bitcoin Around the World: How Virtual Currencies Are Treated in 40 Different Countries*, INT'L BUS. TIMES (Feb. 5, 2014, 4:16 PM), http://www.ibtimes.com/bitcoin-around-world-how-virtual-currencies-are-treated-40-different-countries-1553532 (discussing the report compiled by the Law Library of Congress); Brian Patrick Eha, *How the World's Richest Nations Are Regulating Bitcoin*, ENTREPRENEUR (Feb. 6, 2014), https://www.entrepeneur.com/article/231294 (discussing regulation in Canada, France, Germany, Italy, Japan, and the U.K.).

170. *See* Regulation 1093/2010 of the European Parliament and of the council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC, 2010 O.J. (L 331) 12 [hereinafter EBA Reg.] (establishing the EBA); *About Us*, EBA, www.eba.europa.eu/about-us, (last visited Jan. 28, 2016); *see also* V. Gerard Comizio, INTERNATIONAL BANKING LAW 325–39 (West Academic 2016)

171. EBA Reg., *supra* 170; *About Us*, EBA, *supra* note 170.

charged with promoting the "convergence of regulatory practices and assessing the risks and vulnerabilities in the EU banking sector"—the world's first supranational financial services regulator.[172] In its short time in existence, the EBA has weighed in heavily on virtual currencies.[173] First, in December 2013, the EBA issued its *Warning to Consumers on Virtual Currencies*.[174] The asserted reason for the publication was to issue a "warning to highlight the possible risks . . . [associated with] buying, holding or trading virtual currencies such as Bitcoin."[175] The publication highlighted the potential risks including the possibility of "losing your money" in the context of the fact that "[n]o specific regulatory protections exist that would . . . cover losses if a platform that exchanges or holds . . . virtual currencies fails or goes out of business."[176]

In encouraging consumers to understand the risks associated with virtual currencies, the publication stressed the following potential risks:

- "you may lose your money on the exchange platform," including through theft and hacking by third parties,
- "your money may be stolen from your digital wallet,"
- "you are not protected" when using virtual currencies as a means of payments,"
- "the value of your virtual currency can change quickly, and could even drop to zero,"
- "transactions in virtual currency may be misused for criminal activities, including money laundering," and

172. EBA Reg., *supra* 170; *About Us*, EBA, *supra* note 170. The EBA was established as part of the European System of Financial Supervision, and, pursuant to EU Regulation 1093/2010, took over all existing responsibilities and tasks of the Committee of European Banking Supervisors. EBA Reg., *supra* 170; *About Us*, EBA, *supra* note 170.

173. *See Report of the European Banking Authority, Warning to Consumers on Virtual Currencies*, EUROPEAN BANKING AUTH. *Passim* (Dec. 12, 2013), https://www.eba.europa.eu/documents/10180/598344/EBA+Warning+on+Virtual+Currencies.pdf (discussing what is involved in the use of virtual currency).

174. *Id.*

175. *Id*. at 1.

176. *Id.*

- "holding virtual currency may have tax implications," including value added or capital gains tax.[177]

Finally, customers were warned that, in buying virtual currencies, consumers should not use "real" money that they cannot afford to lose nor keep large amounts of money in a digital wallet for extended periods of time, but should become familiar with the ownership, business model, transparency, and public perceptions of any digital currency trading exchange platform they may consider using.[178]

As a follow up to its warning published in 2013, the EBA issued its *Opinion on Virtual Currencies*[179] ("VC Opinion") in July 2014. Stressing that one of the tasks of the EBA is to "monitor new and existing financial activities," and promulgate appropriate regulations and guidance, the EBA noted that its 2013 warning did not address "whether VCs can or should be regulated."[180] While noting that there are some potential benefits of VCs, for example, "reduced transaction costs, faster transaction speed, and financial inclusion," the risks, by contrast, "are manifold."[181] The ECB identified more than seventy perceived risks across several categories, including: "risks to users, risks to non-user market participants, risks to financial integrity such as money laundering and other financial crimes, risks to existing payment systems in conventional fiat currencies, and risks to regulatory authorities."[182] Thus, the EBA determined that a regulatory approach that addresses VC risks comprehensively requires "a substantial body of regulation" as part of having a "'long-term regime."[183]

The EBA made two recommendations for mitigating "some of the more pressing risks."[184] First, the EBA recommended that all EU national regulatory authorities advise credit and financial institutions,

177. *Id.* at 2–3.
178. *Id*. at 3.
179. *Opinion on "Virtual Currencies"*, EUROPEAN BANKING AUTH. (July 4, 2014), https://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf.
180. *Id*. at 5.
181. *Id*.
182. *Id*.
183. *Id*.
184. *Id*.

payments institutions and e-money institutions against buying, selling, or holding VCs for their own account.[185] In addition, the EBA "also recommends that EU legislators consider declaring market participants at the direct interface between conventional and virtual currencies, such as virtual currency exchanges, [so-called] 'obliged entities' under the EU [AML] Directive and thus subject to its [AML] and counter terrorist financing requirements."[186]

As a result, prompted by the terrorist attacks in France in 2015, the European Commission adopted proposals in response to the EU Council's conclusions of February 2016 regarding the fight against the financing of terrorism.[187] These proposals underlined the importance of achieving rapid progress of legislative actions, including in the field of virtual currencies, and called on the Commission to submit targeted amendments to EU Law.[188] The European Parliament ("EP") published a parallel resolution and report in May 2016, in which the EP proposed, inter alia, that the Commission develop recommendations for any legislation needed to regulate the VC sector.[189]

In response to the legislative initiatives, the EBA published an opinion responding to the commission's proposal and set out seven proposals that the EU commission and co-legislators should take into account when finalizing the VC amendments to EU law.[190] These proposals included recommendations regarding the scope of VC licensing, enforcement sanctions, control standards, information exchange, and application of AML laws.[191]

185. *Id.*

186. *Id.* at 6.

187. Press Release, European Commission, Commission Presents Action Plan to strengthen the fight against terrorist financing (Feb. 2, 2016), http://europa.eu/rapid/press-release_IP-16-202_en.htm.

188. *Id.*

189. EUROPEAN PARLIAMENT, RESOLUTION ON VIRTUAL CURRENCIES 6 (May 26, 2016), http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+TA+P8-TA-2016 0228+0+DOC+PDF+V0//EN.

190. *Opinion of the European Banking Authority on the EU Commission's to Bring Virtual Currencies into the Scope of Directive (EU) 2015/849 (4DMLD)*, EUROPEAN BANKING AUTH. (Aug., 11 2016), https://www.eba.europa.eu/documents/10180/1547217/EBA+Opinion+on+the+Commission%E2%80%99s+proposal+to+bring+virtual+currency+entities+into+the+scope+of+4AMLD.

191. *Id.*

B. The United Kingdom

In August 2014, the U.K. government announced a program looking into the particular benefits and risks associated with digital currencies and underlying technology, with a particular focus on the question of regulation.[192] In November 2014, the government published a request for public comment to gather views and evidence on these questions and received over 120 responses from "members of the public who use digital currencies, digital currency developers, business providing digital currency-related services, banks, payment scheme companies, academics, consultancies, and other government departments and agencies."[193]

In March 2015, Her Majesty's Treasury published a report, *Digital Currencies: Response to the Call for Information* (the "HM Treasury Report"), that summarized stakeholder response regarding the benefits and risks of digital currency, but also significantly reached certain conclusions regarding next steps related to potential digital currency regulation.[194] The HM Treasury Report noted respondents mentioned two factors in particular, which "were highlighted as the

192. Rt. Hon George Osborne, Chancellor of the Exchequer, *Speech at the Launch of the New Trade Body for Fintech, "Innovative Finance"*, HM TREASURY (Aug. 6, 2014), https://www.gov.uk/government/speeches/chancellor-on-developing-fintech.

193. HM TREASURY, DIGITAL CURRENCIES: RESPONSE TO THE CALL FOR INFORMATION 3 (2015) [hereinafter HM TREASURY REPORT]. It is interesting to note that the call for information also asked for views on the impact of FinCEN application of anti-money laundering regulations to administrators and exchangers of digital currencies. *Id*. at 13.

> On the whole, responses from digital currency firms (including a number which operate and are regulated in the U.S.) were positive, reporting that regulation has increased the legitimacy of digital currency firms, helped firms establish banking partnerships and investment, and deterred criminals. Despite this, however, various submissions commented that there is a lack of clarity about which categories of business activity are captured by FinCEN requirements, and some said that the process of registering in multiple American states has been burdensome and has forced smaller firms to exit the market. A number of submissions also commented on the proposed 'BitLicense' framework that has been put forward by the New York Department of Financial Services. Digital currency firms answering on this agreed that the proposed BitLicense regime, at least as initially drafted, would be too wide in scope and would impose very high compliance costs on digital currency firms and risk damaging the sector.

Id. at 13.

194. *Id.* at 19–20.

main challenges digital currency businesses faced setting up in the U.K."[195] Most respondents "mentioned the lack of a regulatory framework for digital currencies, commenting that this has caused some uncertainty for businesses and has made it difficult for the industry to prove its credibility and legitimacy."[196] The second prevalent factor "was that digital currency firms have encountered difficulties in opening bank accounts in the U.K. . . ."[197] In this vein, "[m]any businesses described how they have been forced to open bank accounts overseas, which results in day-to-day business being slower and drives up costs."[198]

Many respondents saw these issues as connected. For example, "[s]ubmissions from the [U.K.] banking sector highlighted a lack of regulation as a key reason for hesitation amongst banks [in accepting] digital currency firms as customers."[199] Additionally, many digital currency firms mentioned "the lack of access to banking as closely related to the regulatory system."[200] With respect to "the question of what steps the government could take to support the industry, many responses focused on the question of bringing the sector into regulation."[201] Well over two-thirds of responses "addressed whether the government should introduce regulation of any kind" and more than 80% of these responses expressed the view that the "sector should have some form of regulation . . . ."[202]

The HM Treasury Report acknowledged that "[t]he government considers that digital currencies represent an interesting development in payments technology, with distributed, peer-to-peer networks and the use of cryptographic techniques making possible the efficient and secure transfer of digital currency funds between users," with potential advantages "clearest for purposes such as micro-payments and cross-border transactions."[203] However, even while taking note of the benefits, the HM Treasury Report also concluded that "digital

195. *Id*. at 8.
196. *Id*. at 8.
197. *Id*.
198. *Id*.
199. *Id*.
200. *Id*.
201. *Id*. at 9.
202. *Id*.
203. *Id*.

currencies have so far been adopted by a relatively small number of consumers and retailers around the world, and both the technology, and the industry that has grown up around it, are still in a nascent state."[204] Further, the HM Treasury Report also conceded that "[t]he evidence suggests that [a] market in which digital currency firms are operating is not functioning as well as it could, and there is a good case for proportionate regulation at this time to provide a supportive environment for legitimate digital currency users and businesses."[205] Notably, the HM Treasury Report also extensively discussed concerns about potential risks presented by digital currency in relation to crime, money laundering, terrorist financing, tax evasion, sanctions evasion, and how such potential risks could be mitigated by appropriate regulations.[206]

The UK government response to these concerns was twofold. First, it stated that while the evidence available indicates that illicit actors have used digital currencies, the information does not suggest that digital currencies have, at present, been widely adopted as a payment vehicle in the wider criminal community.[207] The government noted that the degree of anonymity and the ease of making payments are key drivers for potential criminal uses and the anonymous use of digital currencies is closely linked to the absence of an effective "know your customer" regime being in place.[208] Second, the government recognized the "broad support" for "proportionate, but robust, anti-money laundering regulation in order to limit the abuse of digital currencies by criminals or terrorists, and to support development and innovation in the sector."[209]

Among its conclusions, the HM Treasury Report noted that the HM Treasury is dedicated to the creation of measures that are intended to "create the right environment for legitimate actors to flourish, and to create a hostile environment for illicit users of digital currencies."[210] It also highlighted the importance of a favorable regulatory climate to protect consumers, while simultaneously discouraging the use of digital

204. *Id.*
205. *Id.*
206. *Id.* at 11.
207. *Id.* at 11–12
208. *Id.* at 14.
209. *Id.*
210. *Id.* at 19.

currency exchanges in furtherance of illegal conduct.[211] First, the distinctive features of digital currencies can be attractive to illegal users as well as people and businesses that wish to use digital currencies for legitimate purposes.[212] In response, the government intends to apply anti-money laundering regulation to digital currency exchanges, to support innovation and prevent criminal use.[213] The government committed to, and has since began "a full consultation on the proposed regulatory approach . . . [to] seek views and evidence on key questions including how anti-money laundering regulation should be applied to the digital currencies sector, the scope of the regulatory [framework], and the identity of the regulator."[214] Second, as part of the consultation on the proposed regulatory approach, the government will look at how to ensure that law enforcement bodies have "effective skills, tools, and legislation to identify and prosecute criminal activity relating to digital currencies, including the ability to seize and confiscate digital currency funds where transactions are for criminal purposes."[215]

Finally, due to the "nascent state of the technology and the surrounding industry," digital currencies offer various risks.[216] To counteract this potential exposure, the U.K. "government consider[ed] that a framework for best practice standards for consumer protection [was] the right step to take at this stage, in order to address the risks identified, but without imposing a disproportionate regulatory burden on the industry," and "intend[ed] to work with . . . the digital currency industry to develop pioneering voluntary standards for consumer protection."[217] Since the HM Treasury Report, the U.K. has begun exploring various regulatory initiatives related to digital currency, while at the same time stressing the desire for the U.K. to be a global center for fintech.[218]

211. *Id.* at 11,19.
212. *Id*. at 11.
213. *Id.* at 19.
214. *Id.*
215. *Id.*
216. *Id.*
217. *Id*.
218. *See, e.g.*, Peter Campbell, *Osborne Wants London to be Global Centre for FinTech*, THE FIN. TIMES (Nov. 11, 2015) (stating that the Chancellor of the Exchequer indicated that UK regulators will provide "space where innovation can happen").

C. The Basel Committee on Banking Supervision

A working committee of the Bank for International Settlements Committee on Banking Supervision,[219] the Committee on Payments and Market Infrastructures (the "CPMI"), among other things, aims at "strengthening regulation, policy[,] and practices" in the payment system, clearing settlements[,] and related arrangements.[220] In November 2015, the CPMI issued a report on digital currencies (the "CPMI Report"), in considering the "possible implications of interest to central banks" worldwide arising from innovations in digital currencies.[221] The CPMI Report concluded that regulatory issues for digital currencies based on distributed ledgers cover three main fields: "consumer protection, prudential and organizational rules for the different stakeholders, and specific operating rules as payment mechanisms."[222] Further, the CPMI Report concluded that given the nature of digital currencies, "which are typically online and therefore not limited to national jurisdictions," a global approach may be important for regulation to be fully effective.[223] Nonetheless, the CPMI Report stressed that the need for a global approach does not preclude certain actions at the national level, identifying at least five general categories of action:

- Information/moral suasion: rather than interfering directly with the development of digital currencies, authorities could decide to use moral suasion towards users and investors in order to highlight the relevant risks and to influence the market.

- Regulation of specific entities: via such an

219. *See generally* V. Gerard Comizio, INTERNATIONAL BANKING LAW 184–211 (West Academic 2016) (discussing the role of the Basel Committee on Banking Supervision in global banking regulation).

220. *Committee on Payments and Market Infrastructures–Overview*, BANK FOR INT'L SETTLEMENTS (last updated May 13, 2015), http://www.bis.org/cpmi/publ/d137.pdf.

221. COMMITTEE ON PAYMENTS AND MARKET INFRASTRUCTURES, BANK FOR INT'L SETTLEMENTS, DIGITAL CURRENCIES 1 (2015).

222. *Id.* at 12.

223. *Id.*

institutional approach, authorities could establish a limited set of regulations for specific types of entities (e.g., those that enable interaction between digital currencies and traditional payment instruments and/or the real economy). Firms that might be subject to specific regulation include intermediaries providing digital currency-related services such as exchanges, merchant acceptance facilities, and "digital wallet" applications enabling users to store and transact in their units of the digital currency.

- Interpretation of existing regulations: some authorities may be able to assess whether existing regulatory arrangements might be applied to digital currencies and digital currency intermediaries. One example is the area of taxation law, where authorities have made determinations of how tax legislation might apply to digital currency arrangements.

- Broader regulation: although jurisdictional issues are likely to be a challenge, authorities might seek to take a broader approach to regulation, potentially reflecting a functional approach such that regulatory obligations that apply to traditional payment methods and intermediaries also apply to digital currency schemes and digital currency intermediaries. As an example, authorities might seek to ensure that AML/know-your-customer ("KYC") requirements apply to digital currency transactions and counterparties, or that the same consumer protection arrangements apply to transactions conducted with digital currencies as to other payment methods used by consumers.

- Prohibition: authorities could seek to ban the use

> of digital currencies in their respective jurisdictions. Practically, this could imply a ban on any digital currency based financial activities, as well as digital currency exchanges or digital currency acceptance by retailers.[224]

Finally, the CPMI Report concluded that "[t]hese categories [could] provide a general framework for the analysis and classification of actions undertaken by national authorities."[225]

D. China

In December 2013, the Chinese central bank announced that all Chinese financial institutions and payments systems were barred from handling virtual currency.[226] The notice from the Peoples Bank of China (the "PBOC") stated that the ban was imposed because no "nation or central authority" backed bitcoin.[227] The PBOC stated that it was "planning to step up its efforts to curb the use of bitcoins to launder cash."[228] Individuals were advised that they were "still free to trade in bitcoins, but should be aware of the risks involved."[229] The notice detailed that PBOC "planned to formalize the regulation of exchanges that dealt in digital currency."[230] Further, Alibaba, China's top internet retailer, announced on January 9, 2014, that it was prohibiting the use of bitcoin on its online shopping platforms, thereby rendering the practical use of bitcoin even more challenging in China, despite massive investor interest in virtual currencies within the country.[231]

Notwithstanding the foregoing, the PBOC Governor Zhou

224. *Id.*

225. *Id.*

226. *See* Joe McDonald, *China Bans its Banks from Handling Bitcoin*, BUSINESS INSIDER (Dec. 5, 2013, 3:43 AM), http://www.businessinsider.com/peoples-bank-of-china-warns-on-bitcoin-2013-12; *China Bans Banks From Handling Bitcoin Trade*, BBC Online News (Dec. 5, 2013) [hereinafter BBC News], http://www.bbc.com/news/technology-25233224.

227. *Id.*

228. *Id.*

229. *Id.*

230. *Id.*

231. Charters Piley, *Alibaba bans Bitcoin Amid China Crackdown*, CNN MONEY (Jan. 9, 2014, 12:32 AM), http://money.cnn.com/2014/01/09/news/bitcoin-alibaba/.

Xiaochuan subsequently stated that China would not seek to ban bitcoins and other virtual currencies entirely.[232] He further observed that he viewed bitcoin as "more of a kind of tradable and collectible asset, such as stamps rather than a payment currency."[233]

E. Japan

Japan has taken a proactive role in regulatory virtual currency business activities, through its (1) Funds Settlement Law, (2) Banking Act, and (3) Anti-money Laundering Laws.

1. Funds Settlement Law

The Funds Settlement Law,[234] aimed at protecting users of settlement services and enhancing the safety and efficiency of such systems, was recently amended to directly regulate virtual currency exchange operators ("VCEOs"), which include *domestic* virtual currency exchange operators ("DVCEOs") and *foreign* virtual currency exchange operators ("FVCEOs").[235] Amendments are scheduled to come into effect no later than June 3, 2017 (the "New Funds Settlement Law"). [236]

VCEO Business, a term of art as defined by the New Funds Settlement Law, is a business that engages in: (a) trading virtual currencies or exchanging virtual currencies with other virtual currencies, (b) acting as a broker, intermediary, or agent for the transactions detailed in (a), or (c) managing customers' monies or

232. Pete Rizzo, *China's Central Bank Governor: PBOC Won't Ban Bitcoin*, COINDESK (April 11, 2014, 2:02 PM), http://www.coindesk.com/chinas-central-bank-governor-pboc-wont-ban-bitcoin/ (quoting Xiaochuan as saying: "It is out of the question of banning bitcoin as it not started by a central bank.").

233. *Id.*

234. 資金決済に関する法律Shikin kessai ni kansuru hōritsu [Funds Settlement Law], Law No. 59 of 2009 (Japan).

235. *Id.*; TSUTOMU HIRAISHI & TADASHI KOIZUMI, BAKER & MCKENZIE, CLIENT ALERT: NEW LAW ALLOWING FOREIGN NON-BANKING ENTITIES TO ENGAGE IN THE MONEY TRANSFER BUSINESS IN JAPAN (2009), yourbusiness/newsletter/bankingfinance/Client%20Alert_New%20Fund%20settlement%20Law.pdf.

236. Jōhō tsushin gijutsu no shintentou no kankyō henka ni taiō suru tame no ginkōhōtō no ichibu wo kaisei suru hōritsu [New Funds Settlement Law], Law No. 62 of 2016 (Japan); JONES DAY, JAPAN LEGAL UPDATE VOL. 15 (2016), http://thewritestuff.jonesday.com/cv/66fd66a19aa605da38cc6b132f83b37ed90e648b.

virtual currencies as part of (a) or (b).[237] Under the New Funds Settlement Law, an entity, domestic or foreign, seeking to offer VCEO services in Japan is required to register with the Prime Minister.[238] The statute assumes that any business operating with respect to Japan is to be regulated.[239] How one's activities in Japan are evaluated for the regulatory applicability is not entirely clear. Even if Japanese presence is limited to online availability, there is a possibility that a VCEO business will nevertheless be caught within the law's regulatory scope since exchange services are inherently continuous in nature and are aimed at a broad audience.[240]

In order for a FVCEO[241] to be granted registration, it must have a local business office as well as a locally residing representative.[242] A FVCEO, unless registered under this law, is explicitly prohibited from conducting marketing aimed at customers in Japan.[243] VCEOs who engage in digital currency exchange services without registration, whether foreign or domestic, are subject to criminal punishment of up to three years of imprisonment, three million yen of fines, or both.[244]

Other registration requirements include being in sound financial standing identified by: minimum capital requirements, net assets, and prescribed by cabinet order;[245] a sound operational management structure; and, other structures that ensure compliance with the law.[246] Once registered, VCEOs (including FVCEOs) will be required to adhere to the following conditions:[247]

237. New Funds Settlement Law, *supra* note 236, art. 2, para. 7.

238. New Funds Settlement Law, *supra* note 236, art. 37.

239. New Funds Settlement Law, *supra* note 236, art 37.

240. See 江頭憲治朗=中村直人「論点体系会社法6」第 一 法規 (2011 年) 69頁 (discussing how the Companies Act would determine whether a foreign company would be required to register in Japan). If further confirmation on this point is desired the Japanese Financial Services Agency's opinion can be sought on a no-names basis. *Id.*

241. A FVCEO is defined as a digital currency exchange operator that operates in and is registered (or similarly regulated) under laws similar to the New Funds Settlement Law in a foreign country. New Funds Settlement Law, *supra* note 236, art. 2, para. 9.

242. New Funds Settlement Law, *supra* note 236, art. 63-5, para. 1.

243. New Funds Settlement Law, *supra* note 236, art. 63-22.

244. New Funds Settlement Law, *supra* note 236, art. 107.

245. Relevant ordinances have not yet been promulgated.

246. The specific content is undefined.

247. DVCEOs under the New Funds Settlements Law is defined as any entity registered as such under Article 63-2. The Law assumes the FVCEOs will also be registered under Article 63-2. As such, a VCEO referenced under this Law would include FVCEOs which are also locally registered. Hence, FVCEOs would be subject to provisions applicable for

- Mandatory customer session: upon entering into a contract, users must be given explanations on fees and other contractual terms.[248]

- Segregation of funds and auditing requirements: VCEOs are required to segregate its own funds from the clients' and have a CPA or auditor periodically review such fund status.[249]

- Grievance resolution: as a general rule, a VCEO will be required to contract with a designated VCEO alternative dispute resolution institution in order to resolve complaints.[250]

- Reporting requirements: registered VCEOs are required to record and preserve books and submit business reports to the Prime Minister.[251]

- Supervision: authorities will have the right to enter into the VCEOs facilities, issue Business Suspension Orders and revoke registration, among others.[252]

As Japan implements these new requirements they will continue to strengthen the influence of their funds settlement regulations.[253]

DVCEOs. New Funds Settlement Law, *supra* note 236, art. 63-5, para. 1.

248. New Funds Settlement Law, *supra* note 236, art. 63-10.

249. New Funds Settlement Law, *supra* note 236, art. 63-11.

250. New Funds Settlement Law, *supra* note 236, art. 63-12.

251. New Funds Settlement Law, *supra* note 236, art. 63-13, 14.

252. New Funds Settlement Law, *supra* note 236, art. 63-15, 17.

253. *See* TSUTOMU HIRAISHI & TADASHI KOIZUMI, BAKER & MCKENZIE, CLIENT ALERT: NEW LAW ALLOWING FOREIGN NON-BANKING ENTITIES TO ENGAGE IN THE MONEY TRANSFER BUSINESS IN JAPAN (2009), yourbusiness/newsletter/bankingfinance/ Client%20Alert_New%20Fund%20settlement%20Law.pdf (predicting that the New Fund Settlement Law "could bring about remarkable changes in the fund settlement and the fund transfer businesses in Japan.").

2. Banking Act and Fund-Transmitting Transaction Business

Fund-transmitting transaction businesses (*kawase torihiki*) are licensed entities that may engage in activities that only banks and registered funds transfer service providers are allowed to conduct. [254] Fund-transmitting transactions are defined as "transactions achieved by agreeing to transmit funds at the request of a client by not directly transporting the money but by using a mechanism to transmit funds, or agreeing to do such and carrying it out."[255] Because virtual currencies can be used as a convenient and cost-efficient way to transfer funds, they may be viewed as fund-transmitting transaction services. Under the Banking Act, however, virtual currencies are not regarded at this point as "funds"[256] and sending virtual currency, by itself, would not be seen as a fund-transmitting transaction. However, if a user deposits funds at a local bank account that is converted to virtual currency, transferred to a receiver's digital account, and then converted to fiat currency, it may be argued that the sender is essentially transmitting funds to the receiver.[257]

3. Anti-Money Laundering Regulation: Act on Prevention of Transfer of Criminal Proceeds

In line with the above revisions to the Funds Settlement Law, the Anti-Money Laundering Regulation Act (the "AMLA")[258] was amended to include VCEOs in the list of designated businesses required to implement measures to detect and report potential money laundering activities.[259] Specifically, designated businesses are required to have institutional mechanisms in place to conduct sufficient KYC procedures at the time of account opening, collect and preserve KYC and

254. Ginkō-hō [Banking Act] Law No. 59 of 1981, art. 4, para. 1, art. 2, para. 2 (Japan); Money transmitters are only allowed to conduct such services for values of less than one million yen. Funds Settlement Law, *supra* note 234, art. 2, para. 2, art. 3, art. 37.

255. Banking Act, *supra* note 254, art. 61, para. 1, art. 64, para. 1; New Funds Settlement Law, *supra* note 236, art. 107.

256. Banking Act, *supra* note 254.

257. Yoshihiro Kataoka, *FinTech's Current Status and Legal Issues*, ITU J. Vol . 46, No. 7 (2016).

258. Hanzai ni yoru shūeki no iten bōshi ni kansuru hōritsu [Criminal Proceeds Act], Law No. 22 of 2007 (Japan).

259. *Id.*

transaction records, and report suspicious transactions to the authorities.[260] Like the New Funds Settlement Law, amendments to the AMLA will come into effect no later than June 3, 2017. Further clarity to the amended AMLA is expected in an upcoming cabinet order.

V. CONCLUSION

As virtual currency business activities and related fintech companies continue to emerge and develop, they will continue to present new and growing legal and regulatory challenges. The artistry for governments and regulatory authorities will continue to be balancing developments of innovative virtual currency technologies that will potentially bring significant benefits with an effective legal and regulatory framework that protects consumers, businesses, and the financial system.[261]

260. There is no direct criminal punishment for non-compliance; however, if an entity continues to disregard its KYC and reporting obligations despite receiving a Business Improvement Order from the authorities, it may be subject to criminal punishment of up to two years of imprisonment or three million yen in fines. *Id.* art. 25, art. 18.

261. As a follow up to the White House Fintech Summit in June 2016, the outgoing Obama Administration recently published a White Paper through the National Economic Council entitled A Framework for FinTech. NAT'L ECON. COUNCIL, THE WHITE HOUSE, A FRAMEWORK FOR FINTECH 1 (2017); *see also* Adrienne Harris & Alex Zerden, *A Framework for FinTech*, THE WHITE HOUSE, (Jan. 13, 2017, 6:36 PM), www.whitehouse.gov/blog/2017/01/13/framework-fintech. This document sets forth policy objectives for the fintech sector through "ten overarching principles that constitute a framework policy makers and regulators can use to think about, engage with, and assess the fintech ecosystem in order to meet these policy objectives." *Id.*