

**WRITTEN TESTIMONY OF  
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BEFORE THE  
U.S. HOUSE COMMITTEE ON AGRICULTURE  
Cryptocurrencies - Oversight of New Assets in the Digital Age  
Wednesday, July 18, 2018**

Thank you Chairman Conaway, Ranking Member Peterson, and members of the Committee for the opportunity to testify before you today on FinTech innovation, Blockchain, and new assets in the digital age. I am Chief Innovation Officer and Director of LabCFTC at the U.S. Commodity Futures Trading Commission (CFTC). The testimony presented here reflects my own views and does not necessarily reflect the opinions or views of the Chairman, Commissioners, or the Commission.

The mission of the CFTC is to foster open, transparent, competitive, and financially sound markets.<sup>1</sup> The agency oversees markets vital to supporting the transfer of risk between market participants and by extension to the stability and reliability of real-world economic activity, ranging from the production and provision of gasoline for our cars, to the availability of credit for our purchases, and the offering of produce in our grocery stores.<sup>2</sup>

As one might expect, the agency's work has always included a focus on agricultural products like wheat and corn, and even precious metals. It is worth asking how do we now find ourselves here making the jump from traditional commodities and risk transfer to FinTech topics like DLT and bitcoin?

The answer is that our financial markets are fast-evolving due to technology-driven innovation and this has changed the way market participants interact, trades are formulated and processed, risk is assessed and hedged, and business operations are executed. No longer do market participants rely on face to face interactions and telephones. Instead, markets have become increasingly electronic, digital, and interconnected. This new world in turn creates new market and regulatory opportunities, challenges, and risks.

Much of this dynamic derives from three identifiable threads around FinTech innovation. The first centers on speed, both in terms of innovation and subsequent adoption. The speed phenomenon derives from the profound impact of increased computing power in the development of products, services, and markets, and the internet in their adoption. The concept

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<sup>1</sup> See *CFTC Mission Statement*, COMMODITY FUTURES TRADING COMMISSION <http://www.cftc.gov/About/MissionResponsibilities/index.htm> (last visited July 16, 2018).

<sup>2</sup> Many of my introductory remarks here derive from my prior publication: See Daniel Gorfine, *FinTech Innovation: Building a 21<sup>st</sup> Century Regulator*, GEORGETOWN UNIVERSITY LAW CENTER INSTITUTE FOR INTERNATIONAL ECONOMIC LAW (IIEL), Issue Brief 11/2017 (November 2017), <https://www.law.georgetown.edu/iel/wp-content/uploads/sites/8/2018/01/LabCFTC-Chris-Brummer-Dan-Gorfine-IIEL-Issue-Brief-November-2017-Accessible.pdf>; see generally, Bruce Tuckman, *Derivatives: Understanding Their Usefulness and Their Role in the Financial Crisis*, J. OF APPLIED CORP. FIN. Vol 28, No. 1 (Winter 2016).

of Moore's Law<sup>3</sup> – which roughly suggests that computing power will expand exponentially over time – has allowed for the development of increasingly powerful, and low cost, computer systems that enable rapid iteration and development of new business models, as well as the capability to do more with increasingly available data. This means that markets and regulators are faced with a constant barrage of innovations and not much time to grasp their implications before inter-connected computers permit their ready adoption.

The second is that innovation largely seeks to either disintermediate traditional gatekeepers or change the way they operate. Current financial regulatory frameworks are centered on the intermediaries or gatekeepers that manage the access to our markets or financial services activity. To the extent that innovators are seeking to disintermediate or substantially transform traditional models in order to increase efficiencies, regulators will need to proactively identify how rules and regulations conform or will need to change.

Finally, the increasing complexity of technology-driven business models requires significantly more focus on technological literacy at all levels of leadership, including within business and government. It is simply not enough to all agree to high level platitudes that items like cybersecurity are of great importance – instead it is imperative that we have deep understanding of the details of security protection in order to avoid bad outcomes, including cyber breaches. Indeed, I would suggest that a key emerging risk in our markets is a potential lack of required literacy in the face of increasingly technology-driven business models and processes.

### **LabCFTC: Building a 21<sup>st</sup> Century Regulator**

Given these market dynamics, and related emerging regulatory challenges, we believe thoughtful 21st century regulatory approaches are needed. This is why last summer, CFTC Chairman Chris Giancarlo announced with bipartisan Commission support the launch of LabCFTC.<sup>4</sup>

LabCFTC is the CFTC's effort to help create a replicable model for regulatory engagement and modernization. The mission of LabCFTC is to facilitate market-enhancing innovation, inform policy, and ensure we have the technological and regulatory tools and understanding to keep pace with changes to our markets. LabCFTC was launched out of our Office of General Counsel so that it can leverage its deep bench of expertise to help manage the interface between technological engagement and innovation, regulatory modernization, and existing rules and regulations.

The building blocks of the effort are engagement, testing and experimentation, education, and collaboration. The core LabCFTC team works closely with subject matter experts from the Agency's operating divisions, who form the LabCFTC liaison network. Through this approach, we can gain a better understanding of emerging risks, technologies, and trends, modernize our regulatory tools and operations, engage with innovators early in the development of new

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<sup>3</sup> See Harald Bauer, et al., , *Moore's Law: Repeal or Renewal?*, MCKINSEY & COMPANY (December 2013), [http://www.mckinsey.com/insights/high\\_tech\\_telecoms\\_internet/moores\\_law\\_repeal\\_or\\_renewal](http://www.mckinsey.com/insights/high_tech_telecoms_internet/moores_law_repeal_or_renewal).

<sup>4</sup> Address of J. Christopher Giancarlo to the New York FinTech Innovation Lab, "LabCFTC: Engaging Innovators in Digital Financial Markets," (May 17, 2017) COMMODITY FUTURES TRADING COMMISSION, <http://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo-23>.

business models, and support better informed policymaking that facilitates market-enhancing innovation.

The effort seeks to involve both internal and external stakeholders through three primary work streams. First, ‘Guide Point’ provides a dedicated point of contact for FinTech innovators to engage with the CFTC, learn about the CFTC’s regulatory framework, and obtain feedback. Such feedback and discourse may provide innovators with valuable information that can help them save time and resources, or allow for the identification of potential friction or uncertainty in existing rules.

Since the beginning of its formation, LabCFTC has met with approximately 200 organizations and discussed a range of technology-related issues, including those involving machine learning and artificial intelligence, DLT and capital markets infrastructure, virtual currencies, smart contracts, RegTech, cloud, and algorithmic trading. LabCFTC ‘office hour’ meetings have been held in Silicon Valley, Chicago, New York, Boston, and Washington, D.C. And in response to common questions raised through these sessions, LabCFTC published its first FinTech educational primer in October 2017. The primer, leveraging a format which will be applied to a range of innovations going forward, involved discussion of technology use-cases, CFTC jurisdiction, and potential risks and challenges.

Second, ‘CFTC 2.0’ fosters the testing, understanding, and potential adoption of new technologies that can improve markets or make the Commission a more effective and efficient regulator. We are currently crowdsourcing ideas for future innovation competitions,<sup>5</sup> which may involve, for example, novel ways to visualize CFTC published data, develop market surveillance tools, make our rules more readily machine-readable, or build a more dynamic, digital, and “smart” notice-and-comment platform.

We further believe that it is through developing proofs of concept and truly kicking the tires on new innovations that agency staff can properly understand the application of new technologies, which will subsequently drive more informed policymaking and technology strategies. In some instances, existing law may be an obstacle to participation in this type of testing, research, and proofs of concept. For this reason, the Chairman appreciates the current efforts of members of this Committee to suggest ways to provide the CFTC with the authority to fully engage with, research, and test emerging technologies.<sup>6</sup>

Finally, ‘DigitalReg’ is designed to support the Commission’s effort to build a 21st century regulator and regulatory approach. Internally, DigitalReg serves as a CFTC-wide resource to help inform the Commission and staff on Fintech-related developments. Externally, DigitalReg acts as a hub to help the Commission collaborate with other U.S. and international regulatory authorities in order to share best practices around FinTech engagement. We were accordingly pleased earlier this year to enter into a CFTC-first FinTech cooperation arrangement with the

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<sup>5</sup> *CFTC Asks Innovators for Competition Ideas to Advance FinTech Solutions*, (Apr. 24, 2018) COMMODITY FUTURES TRADING COMMISSION, <https://cftc.gov/PressRoom/PressReleases/7717-18>.

<sup>6</sup> See, e.g., *Commodity Futures Trading Commission Research and Development Modernization*, H.R. 6121, 115th Cong. (2018), <https://www.congress.gov/bill/115th-congress/house-bill/6121/text?r=1>.

UK's Financial Conduct Authority (FCA),<sup>7</sup> and look forward to ongoing constructive engagement with our domestic and international regulatory peers.

## **DLT, Blockchain, and Digital Assets**

The topics of DLT, blockchain, and digital assets<sup>8</sup> have been prominent areas of engagement and exploration for the CFTC over the past year. When LabCFTC views the space, we are interested both in private or permissioned ledger networks (also sometimes considered “blockchain-inspired” technologies) that can be deployed by market participants to improve market infrastructure and in public blockchains that require use of a virtual currency to incentivize participation in maintaining the ledger system.

Developments across this spectrum have society re-thinking the nature of money, how people transact, and how we can more efficiently engage in regulatory, economic, and market activity.

On the private or permissioned side of the spectrum, new innovations hold promise in improving clearing and settlement processes, facilitating regulatory reporting and compliance, and even transforming information capture, delivery, and analytics capabilities. The CFTC is also very interested in better understanding their potential ability to power smart (or self-executing) contracts, which can incorporate compliance provisions and potentially decrease execution risks. To be clear, however, this area of innovation is quite distinct from the realm of public distributed ledgers and virtual currencies, and has its own unique set of challenges including around security, scalability, and broader adoption.<sup>9</sup>

On the public distributed ledger side of the spectrum, it may be helpful to level-set. Virtual currencies are a digital representation of value and may function as a medium of exchange, a unit of account, and/or a store of value. Virtual currencies generally run on a decentralized peer-to-peer network of computers, which rely on certain network participants to validate and log transactions on a permanent public distributed ledger visible to all. The virtual currency serves as the required incentive for miners or validators.<sup>10</sup>

Proponents note that these virtual ecosystems unlock digital scarcity, enable the efficient transfer of ownership, and power the execution of relatively autonomous application platforms all without the need for a trusted, central party that was traditionally needed to verify that each party to a transaction has – and does – what it promises.<sup>11</sup> In addition to providing new ways to transact over the internet, these advancements could allow for decentralized platforms or

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<sup>7</sup> *US CFTC and UK FCA Sign Arrangement to Collaborate on FinTech Innovation*, COMMODITY FUTURES TRADING COMMISSION, (Feb. 19, 2018) <https://www.cftc.gov/PressRoom/PressReleases/pr7698-18>.

<sup>8</sup> ‘Digital assets’ is a broad category that includes ‘virtual currencies’ or ‘cryptocurrencies.’ For purposes of this testimony and consistent with CFTC past use, I use the term ‘virtual currencies.’

<sup>9</sup> *A CFTC Primer on Virtual Currencies*. COMMODITIES FUTURE TRADING COMMISSION, (Oct. 17, 2017), [http://www.cftc.gov/idc/groups/public/documents/file/labcftc\\_primercurrency100417.pdf](http://www.cftc.gov/idc/groups/public/documents/file/labcftc_primercurrency100417.pdf) (hereinafter “LabCFTC Primer”).

<sup>10</sup> See generally LabCFTC Primer.

<sup>11</sup> See Jerry Brito, *Executive Director, Coin Center before the New Jersey Assembly Financial Institutions and Insurance Committee Hearing on digital Currency*, COINCENTER (Feb. 5, 2015) <https://coincenter.org/wp-content/uploads/2015/02/NewJerseyLegislatureWrittenTestimony.pdf>.

applications that provide consumers with desired goods and services absent a central gatekeeper.<sup>12</sup> Some further note the potential inspiration that virtual currencies may provide Central Banks in the future creation of digital fiat currencies.<sup>13</sup>

Many, however, appropriately worry that virtual currencies and tokens are prone to fraud, manias, and bubbles driven by misunderstandings and myths regarding their scalability, utility, and intrinsic value.<sup>14</sup> Indeed, over time bad actors have commonly invoked the concept of innovation in order to engage in fraudulent activities that target the general public.<sup>15</sup> Additionally, as we are reminded by recent events,<sup>16</sup> concerns regarding the use of cryptocurrencies to facilitate illegal activity are well-founded and require government efforts to ensure that Anti-Money Laundering (AML) and Know Your Customer (KYC) requirements are effectively applied.

With recent hype around virtual coins and tokens there has also been a proliferation of so-called “Initial Coin Offerings” or ICOs, which frequently refers to the sale of virtual tokens to the public that are intended to raise capital for a venture and may bear the hallmarks of a securities offering.<sup>17</sup> Our colleagues at the Securities and Exchange Commission (SEC) have been thoughtfully addressing related challenges,<sup>18</sup> and providing additional clarity to the marketplace.<sup>19</sup> And from the CFTC’s perspective, given the potential to tokenize a broad range of economic assets, it is important to remind the public that digital assets can also be derivatives or commodities, depending on their terms and how they are structured.

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<sup>12</sup> Steven Johnson, *Beyond the Bitcoin Bubble*, NEW YORK TIMES, (Jan. 16, 2018) <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>.

<sup>13</sup> Qin Chen, *Next Stop in the Cryptocurrency Craze: A Government-Backed Coin*, CONSUMER NEWS AND BUSINESS CHANNEL, (Dec. 29, 2017) <https://www.cnbc.com/2017/11/29/federal-reserve-starting-to-think-about-its-own-digital-currency-dudley-says.html>.

<sup>14</sup> *CFTC Customer Advisory: Use Caution When Buying Digital Coins or Tokens*, COMMODITY FUTURES TRADING COMMISSION, (July 16, 2018), <https://www.cftc.gov/PressRoom/PressReleases/>; see also Shane Shifflett & Coulter Jones, *Buyer Beware: Hundreds of Bitcoin Wannabes Show Hallmarks of Fraud*, WALL STREET JOURNAL (May 17, 2018) <https://www.wsj.com/articles/buyer-beware-hundreds-of-bitcoin-wannabes-show-hallmarks-of-fraud-1526573115>; Angela Monaghan, *Bitcoin Biggest Bubble in History, says Economist who Predicted 2008 Crash*, THE GUARDIAN, (Feb. 2, 2018) <https://www.theguardian.com/technology/2018/feb/02/bitcoin-biggest-bubble-in-history-says-economist-who-predicted-2008-crash>.

<sup>15</sup> *CFTC Charges Nicholas Gelfman and Gelfman Blueprint, Inc. with Fraudulent Solicitation, Misappropriation, and Issuing False Account Statements in Bitcoin Ponzi Scheme*, COMMODITIES FUTURES TRADING COMMISSION (Sept. 21, 2017) <https://www.cftc.gov/PressRoom/PressReleases/pr7614-17>.

<sup>16</sup> Gabriel T. Rubin, *How Bitcoin Fueled Russian Hacks*, WALL STREET JOURNAL (July 13, 2018), <https://www.wsj.com/articles/how-bitcoin-fueled-alleged-russian-hacks-1531517907>.

<sup>17</sup> Jay Clayton & J. Christopher Giancarlo, *Regulators Are Looking at Cryptocurrency*, WALL STREET JOURNAL, (Jan. 24, 2018), <https://www.wsj.com/articles/regulators-are-looking-at-cryptocurrency-1516836363>.

<sup>18</sup> *The SEC Has an Opportunity You Won't Want to Miss: Act Now!*, (May 16, 2018) SECURITIES AND EXCHANGE COMMISSION, <https://www.sec.gov/news/press-release/2018-88>; see also *Pre-ICO Sale is Live*, HOWEYCOINS (2018), available at <https://www.howeycoins.com/index.html>; *Investor Bulletin: Initial Coin Offerings*, SECURITIES AND EXCHANGE COMMISSION (July 25, 2017), [https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib\\_coinofferings](https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_coinofferings).

<sup>19</sup> William Hinman, Director of the Division of Corporation Finance, *Director Digital Asset Transactions: When Howey Met Gary (Plastic)*, Yahoo Finance All Markets Summit: Crypto, San Francisco, CA, SECURITIES AND EXCHANGE COMMISSION (June 14, 2018) <https://www.sec.gov/news/speech/speech-hinman-061418>.

Given the potential and challenges of this space, CFTC Chairman Giancarlo has made clear that the proper response by regulators and policymakers is not to dismiss the entire movement as misguided or foolish, but rather to take the time to learn, facilitate the promise, and guard against risks and bad actors.<sup>20</sup>

As part of this effort, LabCFTC published its first FinTech primer on the topic of virtual currencies in October 2017.<sup>21</sup> The goal of the primer was to help educate the public about potential use-cases of the technology, CFTC jurisdictional considerations, and relevant risks, including around investment speculation, cybersecurity, and platform operations.

After the self-certification and launch of bitcoin futures in December 2017, LabCFTC was then able to continue providing support in the areas outlined below to the Commission and operating divisions based on our engagement and study of DLT and virtual currencies.

### **Digital Assets and CFTC Jurisdiction**

In 2015, the Commission determined that certain virtual currencies, such as Bitcoin, met the definition of “commodity” under the Commodity Exchange Act (CEA). This means that the CFTC’s jurisdiction is implicated from an oversight perspective if a commodity-based future or swaps product is offered to the market and from an enforcement perspective if there is fraud or manipulation involving such products or their underlying commodity markets.

In December 2017, two CFTC regulated futures exchanges self-certified and launched Bitcoin futures products.<sup>22</sup> Under the CEA and Commission regulations and related guidance, futures exchanges may self-certify new products on twenty-four hour notice prior to trading. This type of framework encourages market-driven innovation and has made America’s listed futures markets the envy of the world. Both CME and CBOE worked with the CFTC for months before launching Bitcoin futures in December 2017. As detailed in our Chairman’s prior Congressional testimony, due to the complexity of issue, the CFTC conducted a “heightened review” of CME’s and CBOE’s responsibilities.

Chairman Giancarlo has outlined six elements regarding CFTC oversight of the virtual currency-related futures and swaps markets. These elements include: (1) staff competency; (2) consumer education through our Office of Customer Education and Outreach; (3) interagency cooperation

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<sup>20</sup> Written Testimony of Chairman J. Christopher Giancarlo before the Senate Banking Committee, Washington, D.C., COMMODITY FUTURES TRADING COMMISSION (Feb. 6, 2018)

<https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo37>; see also Testimony of Chairman J. Christopher Giancarlo before the Senate Committee On Appropriations Subcommittee on Financial Services and General Government, Washington, D.C. COMMODITY FUTURES TRADING COMMISSION (June 5, 2018) <https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo47>.

<sup>21</sup> *CFTC’s LabCFTC Releases Primer on Virtual Currencies* COMMODITY FUTURES TRADING COMMISSION (Oct. 17, 2017), <https://www.cftc.gov/PressRoom/PressReleases/7631-17>.

<sup>22</sup> The following discussion is largely based on: J. Christopher Giancarlo Testimony Before the U.S. Senate Agriculture, Nutrition, and Forestry Committee (Feb. 15, 2018), COMMODITY FUTURES TRADING COMMISSION <https://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo38>.

including with the SEC, the Department of Treasury's Financial Crimes Enforcement Network known as FinCEN, and through the Financial Services Oversight Council (FSOC); (4) CFTC exercise of its regulatory oversight authority; (5) strong enforcement efforts to deter and prevent fraud and manipulation; and (6) heightened review of virtual currency-related product self-certifications.

With respect to heightened review, in May of this year, our Division of Market Oversight and Division of Clearing and Risk issued a joint staff advisory that gives exchanges and clearinghouses registered with the CFTC guidance for listing virtual currency derivative products. The advisory highlights key areas that require particular attention in the context of listing a new virtual currency derivatives contract, including: enhanced market surveillance; close coordination with CFTC staff; large trader reporting; outreach to member and market participants; and, Derivatives Clearing Organization risk management and governance.

Commission staff further noted at the time that since the Agency found virtual currencies such as Bitcoin to be commodities in 2015, it has taken action against unregistered Bitcoin futures exchanges; enforced the laws prohibiting wash trading and prearranged trades on a derivatives platform; issued proposed guidance on what is a derivative market and what is a spot market in the virtual currency context through an interpretation of 'actual delivery'<sup>23</sup>; issued warnings about valuations and volatility in spot virtual currency markets; and, addressed a virtual currency Ponzi scheme.

On the topic of enforcement, it is worth mentioning that the CFTC is working closely with the SEC and other fellow financial enforcement agencies to aggressively prosecute bad actors that engage in fraud and manipulation regarding virtual currencies. The more cops we can have on the beat, the better.

## **Moving Forward**

One thing is certain: none of us are able to predict exactly where innovation is heading, and, accordingly, it is incumbent on us as a 21<sup>st</sup> century regulator to continue studying, learning, and keeping pace with change. For our part, LabCFTC looks forward to ongoing engagement with a broad range of innovators, including the likes of those on today's panel, to be sure we are skating to where the puck is heading. We can best facilitate market-enhancing innovation and ensure sound policy through sound understanding.

Additionally, we look forward to ongoing close collaboration with our regulatory peers, including through the FSOC digital asset working group spearheaded by our colleagues at the Treasury Department. We all have the shared goal to bring clarity and certainty to the market,

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<sup>23</sup> *CFTC Issues Proposed Interpretation on Virtual Currency "Actual Delivery" in Retail Transactions*, COMMODITY FUTURES TRADING COMMISSION (Dec. 15, 2017), <https://www.cftc.gov/PressRoom/PressReleases/7664-17>.

but also need to be sure that we are thoughtful in our approach and do not steer or impede the development of this area of innovation. Indeed, while some may seek the immediate establishment of bright lines, the reality is that hasty regulatory pronouncements are likely to miss the mark, have unintended consequences, or fail to capture important nuance regarding the structure of new products or models.

In thinking about the future of a broad range of emerging technologies, it is perhaps informative to harken back to the policy approach that helped facilitate the development of the internet and the rise of new internet-based business models. Noting the rapid pace of innovation and technological transformation, then senior policy adviser Ira Magaziner stated in 1997 that given “the breakneck speed of change in [] technology . . . [g]overnment attempts to regulate are likely to be outmoded by the time they are finally enacted.”<sup>24</sup>

Given this dynamic, the government largely avoided a prescriptive approach in favor of principles, focused on educating and empowering law enforcement to target bad actors, and allowed this area of innovation time and space to develop, all while maintaining the ability and vigilance to act to ensure market integrity. While particular areas of innovation may require different treatment, generally this approach seems like the right one when dealing with new technologies, which are, of course, agnostic as to their use. The role of the regulator is to facilitate the use of new technologies that benefit markets and the public more broadly, while deterring and pursuing those who seek to use technology to do harm.

Thank you. I am happy to answer any questions that you have.

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<sup>24</sup> Steve Lohr, *Policing the Internet: Anyone But Government*, NEW YORK TIMES (Feb. 20, 2000), <https://www.nytimes.com/2000/02/20/weekinreview/ideas-trends-policing-the-internet-anyone-but-government.html?nytmobile=0&pagewanted=print&src=pm&referer=>.