SPEECHES & TESTIMONY

Remarks of CFTC Commissioner Rostin Behnam at the Georgetown Center for Financial Markets and Policy

"The Dodd-Frank Inflection Point: Building on Derivatives Reform"

November 14, 2017

Good afternoon. And thank you for your warm welcome. It is truly an honor to be back at Georgetown, and a privilege to be speaking to you today. Before I begin, I want to thank the Center for Financial Markets and Policy for hosting me today; Scott Fleming, the University's Associate Vice President for Federal Relations; and Dr. Aggarwal for taking time out of her busy schedule to facilitate a more informal conversation after these prepared remarks.

Introduction

I anticipate that you all joined me today because you have more than a passing familiarity with the regulatory response to the financial crisis that began almost a decade ago. But, beyond the passage in 2010 of the Dodd-Frank Wall Street Reform and Consumer Protection Act,[1] or the Dodd-Frank Act for short, how many of you have been able to follow the hundreds of rulemakings carried out by over a dozen federal agencies during these past seven years? What about the corresponding reforms on the international front? Not to mention the new innovations in markets, products, and technology—many of which can be directly tied to one or more major goals of global financial regulatory reform.

Today, I believe we are at an *inflection point* on our journey through Dodd-Frank implementation. To be clear, I don't believe we have reached the destination envisioned at the 2009 G20 Pittsburgh Summit.[2] And that's not only because all the rules aren't finished, and it certainly is not because we've lost our way. It's just that, along the way, we've found some new roads to explore, met some new people, and hit some unexpected traffic in the form of regulatory challenges, unintended consequences, and emerging risks. What's important is that our policy goals have not changed, and the destination is still firmly set on the horizon. It's not a time to turn back; it's a time to look back at the course and make some strategic decisions so that we can push forward together.

We have a lot of territory to cover, and I'd like to begin by providing you some history and background on the regulation of the futures markets and structure of the Commodity Futures Trading Commission ("CFTC" or "Commission"); the agency's expanded role post-Dodd-Frank; and what that means for me as a Commissioner. I will then discuss the goals of Dodd-Frank and the policy response with a focus on Title VII, which covers the over-the-counter or "OTC" swaps markets. I will end by sharing my views on Commission efforts to reassess our current regulatory structure in terms of responding to regulatory challenges, unintended consequences, and new and emerging risks in the derivatives markets.

Pre-Dodd-Frank: A Brief History of Derivatives Regulation and the CFTC

The CFTC is an independent federal regulatory agency responsible for overseeing the trading of swaps, futures, and options on futures. The Commission oversees a variety of individuals and entities including designated contract markets, swap execution facilities, derivatives clearing organizations, swap data repositories, swap dealers, futures commission merchants, commodity pool operators, and other entities involved in the trading of derivatives within the CFTC's jurisdiction. As set forth in the Commodity Exchange Act ("CEA"), the CFTC's mission is to foster open, transparent, competitive and financially sound markets, prevent and deter price manipulation and other disruptions to market integrity, and to protect all market participants and the public from fraud, manipulation, and abusive practices.[3] The CFTC

accomplishes its mission through a system of effective self-regulation, direct oversight, and a strong enforcement program.

Developing Futures Regulation

Futures contracts have been traded in the United States for over 150 years, originating in Chicago, and expanding to cities including New York, Kansas City, and Minneapolis depending on the commodity being traded and where a central location for physical delivery made the most sense. Futures originally served—and continue to serve—as a key price discovery and risk management tool for agricultural producers. Stable, consistent prices for key commodities—which we all enjoy in the grocery store, from milk, cheese, and beef, to a variety of grains, and even orange juice—are due to the risk management mechanisms provided by the futures markets.

In the second half of the 20th century, in part because of the removal of the gold standard and an increasingly globalized economy, exchange traded futures expanded beyond the farm. Futures contracts on currency, interest rates, and mortgages, to name a few, were many of the first non-agricultural contracts offered, giving a much broader cohort of commercial businesses, also known as end-users, which includes farmers, but also, manufacturers and financial institutions, the ability to manage risk across many different elements of business.

All the while, the CFTC, and its several predecessors, was quietly tucked away on Independence Avenue across town in the halls of the United States Department of Agriculture. In 1921, following a relatively brief period of oversight by the Federal Trade Commission, Congress passed the Futures Trading Act, which authorized the Secretary of Agriculture to designate relevant futures exchanges as “contract markets.” Following a decision by the Supreme Court that the Futures Trading Act was an unconstitutional use of Congress’s taxing power, Congress enacted the Grain Futures Act, which was based on the interstate commerce clause and banned off-contract-market futures trading rather than taxing it. Many of the first laws passed by Congress served to either regulate, ban, or tax futures trading because of strong fears of manipulation and excessive speculation. Ultimately, in 1936, Congress passed the Commodity Exchange Act, which established the Commodity Exchange Administration within the Department of Agriculture.

For roughly the next four decades, Congress periodically amended the Commodity Exchange Act to add to the statutory list of regulated commodities, to establish requirements for certain intermediaries to meet financial standards, and to strengthen self-regulation by contract markets through enforcement of trading rules and contract terms. It wasn’t until 1973, when food prices rapidly increased that Congress looked to the futures markets to determine whether there was a connection between higher commodity prices and futures trading.

While Congress generally determined that other factors had led to the food price increases, it nevertheless determined that the time was right to re-examine its approach to futures market regulation. Following a series of hearings and after considering numerous issues, Congress passed the Commodity Futures Trading Commission Act of 1974 or “CFTCA,” which, among other things, established the Commodity Futures Trading Commission as a stand-alone, independent agency. The CFTCA also expanded the definition of “commodity.” This was a pivotal change that transformed the sphere of commodities under the CFTC’s jurisdiction from an enumerated list to include “all services, rights, and interests” that could be the subject of a futures contract.[4]

The Commission

The Commission is composed of five Commissioners, appointed by the President and approved by the Senate, who serve five-year staggered terms.[5] No more than three of the five Commissioners may be members of the same political party.[6] The President appoints one of the Commissioners as Chairman.[7] Currently, there is one sitting Chairman and two Commissioners, including me.

Many commonly known independent federal agencies like the Securities and Exchange Commission, the Federal Trade Commission, the Federal Communications Commission, and the National Labor Relations Board were created during the New Deal Era as a means to

provide expertise for the executive branch in discrete subject matter areas.[8] As one of several "independent" agencies, the various commissions are unique, in part, because the membership is bipartisan and the terms of service are fixed. Ultimately, the commissions provide its members, republican or democrat, the opportunity to deliberate issues in a manner that aims to provide a full spectrum of ideas in the hope of producing the best, most balanced outcome. As I contemplate my priorities in the years to come, my most important goal is to provide perspective to the Commission that might not otherwise be considered by my fellow Commissioners, so that any decision is fully debated.

Following the passage of the 1974 Act, the CFTC remained, as it was often called, a *sleepy* D.C. agency, using, in part, a principles based model of oversight and reliance on self-regulatory organizations ("SROs") to regulate and oversee market participants. The nascent derivatives market continued to grow at a furious clip, with the first swap agreement occurring in 1981 between the World Bank and IBM. Despite a few leadership suggestions in the 1990s to examine the growing over-the-counter swaps market, it remained mostly unregulated until Dodd-Frank. Over-the-counter swaps did not singularly cause the financial crisis, nor would their direct regulation have prevented a crisis; but, unregulated, over-the-counter derivatives certainly played a key part in the crisis, and the policy response was appropriately swift.

The Expanding Role of the CFTC: Dodd-Frank Implementation

Congress's 2010 response largely incorporated the international financial reform initiatives for over-the-counter derivatives laid out at the 2009 G20 Pittsburgh Summit aimed at improving transparency, mitigating systemic risk, and protecting against market abuse.[9] These initiatives include: (i) moving standardized contracts to exchanges or electronic trading platforms—"where appropriate;" (ii) mandatory clearing for most bilateral contracts through central counterparties ("CCPs"); (iii) reporting executed trades to trade repositories; and (iv) instituting higher capital requirements for non-centrally cleared contracts.[10], [11]

These initiatives were bold, *but* appropriate, given the circumstances leading to the financial crisis and the aftermath that laid bare many weaknesses in the global regulatory system. The reforms outlined in Pittsburgh placed a significant responsibility on the world's largest nations and their regulators to take immediate action. It was agreed then and there that the intricate interconnections in the global economy and financial markets signaled that the financial system, as a whole, was only as strong and resilient as its weakest link and it was untenable to leave open the possibility for a race to the regulatory bottom.

Since 2010, the CFTC has been a leader in tackling and finalizing OTC derivatives reforms, meeting many of its statutory deadlines, and missing others, but largely completing its Dodd-Frank rulemaking agenda a few years ago. As with any legislative and regulatory reform, change is difficult for policy makers, regulators, and market participants. Wholesale reforms, like those introduced in Title VII of Dodd-Frank do not come without costs and unintended consequences—and the CFTC's leadership at the time acknowledged that these costs and consequences would require future leaders such as myself to revisit and reevaluate the rules, policies, and guidance issued during those first few years. While many of the statutory and regulatory changes were met with skepticism and some ardent opposition, in my view, the broad policy objectives remain sound: require firms that pose significant or systemic risk to register and submit to additional regulatory requirements and oversight; mandate clearing and exchange trading for standardized swaps; require data reporting; and introduce capital and margin requirements for bespoke, over-the-counter non-centrally cleared swaps.

But, over the years, market growing pains and regulatory fatigue have manifested themselves. *What's next*? How do regulators and market participants sensibly *build* on Title VII Dodd-Frank reforms in a manner that preserves critical policy initiatives, while simultaneously addressing unintended consequences? Our priorities remain the same: reducing systemic risk, preserving market liquidity, and above all else, incentivizing market participants, namely commercial end-users, to use the derivatives markets to manage risk. But, we have to address the increasing costs on all sides of the table, the increasing interconnectedness and associated risks, and the increasing concerns that we may be undermining our mission of fostering competitive and innovative markets. And, we have to accomplish all of this against a backdrop of rapidly

developing technologies impacting every facet of the markets and individuals we regulate, and in comity with our global counterparts.

Reflection and Inflection

With new leadership in Washington advocating a strong desire to address the unintended consequences of Dodd-Frank,[12] I believe the CFTC is at an *inflection point*, where strategic regulatory decisions are critically important to determine the future of market transparency, resiliency, and systemic risk. Despite the current political rhetoric that is more akin to regulatory rollbacks, the CFTC must not indulge strong economic tailwinds and daily records in our capital markets as a means to justify changes to important policies that have, in most circumstances, proven to be sound infrastructure for a market that, left to its own devices, can have devastating effects on the financial system and ultimately main street families, both at home and abroad. It is critical that the CFTC continue to support the key Dodd-Frank reforms in a manner that is both reflective and forward looking: reflecting on the success or failures of policy changes that have been made to date; and always keeping an eye on new challenges, innovations, and threats to the financial markets. Our mission is to protect the market and the public from fraud, abuse, and systemic risk. We cannot forget that millions of jobs were lost and homes foreclosed upon before we were authorized to take action.

I recently announced two key priorities for the beginning of my time at the CFTC. Both will bring me further down the road in terms of education and awareness of the critical issues ahead. First, I am sponsoring the CFTC's Market Risk Advisory Committee, one of five CFTC advisory committees aimed at monitoring and examining different elements of the regulated derivatives markets. The MRAC, as the Market Risk Advisory Committee is more commonly known, will allow me to engage directly with key industry representatives, fellow regulators, consumer groups, and academics in an open forum to examine risk across broad swaths of the markets, with the goal of informing and making recommendations to the Commission. Second, I am going to spend the next few months on a listening tour, taking time to meet market participants, including commercial manufacturers, financial institutions, and farmers and ranchers, to get a better understanding of the risk management challenges each face.

Staying on Course—What is Next?

While I've already had some time to reflect on the Dodd-Frank Act implementation, I'm just beginning the journey. We've covered a lot of ground, and while turning back is not an option, we can certainly use what we've learned along the way to plot a more navigable course. Implementation of mandatory clearing, the exchange trading requirement, swap data reporting, and capital and margin requirements for uncleared swaps—the four key reform areas, are all areas I'm ready to approach on the road to reform.

Mandatory Clearing of Standard Swaps

Central counterparty clearing has been a hallmark of the futures industry for decades. Providing a buyer to every seller and seller to every buyer, clearinghouses, through capital and margin requirements and robust membership requirements, strong governance and financial requirements, and risk management, ensure contract performance, allowing end-users to gain appropriate risk management exposure to derivatives with a nominal amount of posted collateral. Although a portion of OTC swaps were routinely cleared or at least collateralized prior to Dodd-Frank, the majority were not. Title VII of Dodd-Frank required the mandatory central clearing of standardized swaps, leaving exemptions for both bespoke swaps and swaps entered for risk management purposes by commercial end-users. Following the implementation of the CFTC clearing mandate in 2013, more than 80% of interest rate derivatives and credit default swaps index average daily notional volume are now centrally cleared.[13] Market participants have by and large supported the clearing mandate, appreciating the effectiveness of the clearing model and its risk reducing benefits, more specifically by minimalizing the interconnectedness of financial institutions. However, mandatory clearing has not taken effect without raising new challenges, questions, and concerns. Most notably, the role and size of the global portfolio of cleared derivatives has grown exponentially as a result of the clearing mandate. This growth leads to new questions: are clearinghouses too big to fail? Too

interconnected to fail? Has the clearing mandate coupled with the higher capital requirements and margin requirements for uncleared swaps disincentivized risk management?

The CFTC's Division of Clearing and Risk staff have a long, successful history of working with domestic and foreign clearinghouses and clearing members to ensure appropriate measures are taken to preserve clearinghouse resiliency, safety, transparency, and liquidity. That said, there is an aggressive effort to consider the potential systemic repercussions of the clearing mandate, with a surgical focus—in my mind—on effectively building on the existing regime in a manner that will result in smarter regulations, and ultimately a safer financial ecosystem.

Exchange Trading of Standardized Swaps

Another key reform is the trading of standardized swaps on CFTC-regulated exchanges (*i.e.*, designated contract markets or "DCMs") or on multi-participant trading systems or platforms first established in the Dodd-Frank Act, known as Swap Execution Facilities ("SEFs"). The main policy goal of the exchange trading requirement is to further transparency in the OTC markets. Despite the regulatory and pricing benefits obtained from exchange trading, it is important to note that the standardization of exchange traded products is counter to a key benefit of OTC bilateral derivatives: the ability to tailor each product to the exact specifications and needs of the counterparties, with a specific focus on the risk management needs of the end-user. In other words, the standardization of the underlying commodity, delivery date, and contract duration, in exchange traded products, are just a few of the factors that may not meet the exact needs of commercial end-users, creating a further incentive to utilize OTC derivatives to manage their risks.

Addressing the needs and practices of end-users that use swaps for hedging business risk, neither Dodd-Frank nor CFTC implementing rules require all swaps to be traded on an exchange. Rather, the Commodity Exchange Act requires that swap transactions subject to the clearing requirement must be traded on either a DCM or SEF unless no DCM or SEF ''makes the swap available to trade,'' in which case the transaction is not then subject to the exchange trading requirement under the Act and implementing regulations.[14]

The Commission has established a regulatory process for SEFs and DCMs to demonstrate through a multi-factor analysis that a swap has been made available-to-trade or "MAT."[15] Under Commission rules, once a swap is MAT on a particular SEF or DCM, all other SEFs and DCMs must also comply with the mandatory clearing and exchange trading requirements for the MAT swap.[16] While this all seems pretty straightforward, it's certainly easier said than done. Since 2014, when the CFTC's trading rules took effect, there have been unintended consequences raising policy concerns such as market fragmentation and liquidity, in addition to some challenging and unexpected issues related to market access and market participant eligibility.

Like the clearing mandate, the exchange trading policy initiative is sound, and the market has moved swiftly to adapt to the regulatory changes. Commercial end-users who rely on more tailored, bespoke transactions for hedging can continue to rely on those tools for risk management without fear of running afoul of mandatory exchange trading—and clearing requirements. Nevertheless, the current process for making the critical MAT determinations is not without challenge and legitimate concerns regarding the effectiveness of the final rules relative to the original policy goals.

Swap Data Reporting

The third key policy reform concerns swaps data. In the days following the crisis, sifting through derivatives books and identifying the thousands of contracts, and the requisite legal obligations tied to each, was a monumental task.

Before Dodd-Frank, there simply was little, if any, relevant market data regarding the size, complexity, and potential risks underlying over-the-counter derivatives. We hear so much these days about *data* in the mainstream sense. We wonder and worry about the growth and relevance of social networks and the information they collect, analyze, leverage, share, and in the worst case scenario, lose. In many ways, the logic is the same regarding financial reporting.

Through robust data collection, market risks and unexpected events can be better assessed and possibly predicted.

But, like the reforms mentioned earlier, swap data reporting requirements have been met with many challenges. With limited resources and technology capabilities, the CFTC simply does not have the bandwidth, nor should it—from a matter of sound policy and good government—to seek to collect or maintain data that does not serve a proven purpose of protecting markets, market participants, and customers.

The CFTC must prioritize building on the current data requirements established in Dodd-Frank in a way that sets clear parameters for what data must be collected and submitted; when it must be submitted; and equally important, what form the data must take. Data set uniformity across the CFTC, and also its sister regulators domestically and internationally, is critical to ensure a clear, cohesive snapshot of the market place. Additionally, efforts to preserve data requirements established in the post-crisis reform effort, but in a smarter, more efficient manner, will ultimately provide cost-savings and better incentives to participate in risk management and price discoveries activities.

Capital & Margin Requirements for Non-centrally Cleared Swaps

The final and certainly one of the most significant reforms established by the G20 leaders, and subsequently in Dodd-Frank, relates to capital and margin requirements for non-centrally cleared swaps.[17] In 2011, the G20 added requirements for margin, which is a form of collateral, for non-centrally cleared swaps to the list of post-crisis financial reforms.[18] Capital and margin requirements serve distinct purposes, and seek to fulfill unique policy objectives.

Capital serves as a loss absorbency mechanism in times of extreme market stress. Conversely, margin is a more targeted tool aimed at reducing systemic risk by directly making a defaulting counterparty responsible for its own losses. In addition to reduction of systemic risk, margin requirements are also intended to promote central clearing.

The CFTC has completed its margin rules, but has yet to finalize capital requirements for the swap dealers who are not prudentially regulated. Under Dodd-Frank, prudentially regulated swap dealers, like national banks, are subject to capital and margin rules established by their prudential regulators.[19] As important as both capital and margin requirements are to reduction of systemic risk, loss absorbency, and promotion of central clearing, there are equally important risks and unintended consequences if the capital and margin levels are not applied appropriately.

Regulators must continually monitor market ecosystems to ensure that regulations, including capital and margin requirements, are properly set to ensure market resiliency, safety, and liquidity at times of market stress. These key reforms have resulted in safer markets, and decreases in liquidity may be an outcome, but that should not deter regulators from continually monitoring market health to ensure commercial end-users have access to these critical business risk management tools.

Thinking Ahead with Some Perspective

Given the complexity and breadth of the issues I just raised, some of you may wonder how the Commission would have any available resources to focus on countless other equally important matters. It’s a good question, and undoubtedly a big challenge. But, there are many other hugely important issues that the CFTC’s expert staff tackle on a daily basis. With that said, before I conclude, I would like to briefly highlight three key issues: enforcement, international coordination, and cyber and technology.

Enforcement

In addition to new Dodd-Frank anti-fraud and manipulation authority, and a developing whistleblower program, the CFTC has broad enforcement authority under the Commodity Exchange Act. Utilizing the invaluable inspection, surveillance, and examination work produced by CFTC staff, the enforcement division has closed several billion dollar settlements since the financial crisis in connection with financial benchmark manipulation, which have downstream effects on borrowing rates for home mortgages and school loans.

Although larger profile cases, like benchmark manipulation, receive the front page headlines, the CFTC's enforcement division is constantly hard at work rooting out fraud and manipulation, however small. Most often, bad actors prey on the elderly and those who may not understand the esoteric world of futures and foreign exchange, let alone general finance. Additionally, advancements in technology have given shape to new entities who prey on younger, more tech savvy investors, through smartphone applications.

Under new CFTC leadership, the Enforcement Division will employ a self-reporting strategy to incentivize disclosure of violations. I am hopeful that the self-reporting strategy, akin to cooperation, will produce results; however, I will be keeping a sharp eye on its progress to ensure the CFTC's enforcement division remains vigilant in policing the markets, and the primary cop on the beat.

International Cooperation

I mentioned earlier that I believe the financial system is only as resilient and safe as its weakest link. To that end, cooperation and coordination across all international jurisdictions is paramount to ensure a level playing field for market participants, and a sound regulatory system that does not incentivize a "race to the bottom." Derivatives markets are very portable from one jurisdiction to another. Consequently, the U.S. must continue to work with both domestic and international regulators to ensure that strong regulations are not simply avoided by taking business off-shore. As we learned during the financial crisis and since, market events overseas can easily have direct consequences on American shores. Most notably, Brexit; the EU's post-crisis reforms ("MIFID II")[20]; and Asian market reforms and implementation pose unique challenges for coordinating jurisdictional oversight to ensure that global markets are fair, comparable, and prioritize market safety, soundness, and transparency.

Technology & Cybersecurity

I would like to briefly discuss cybersecurity concerns, and also the advancement of emerging financial technology. Although related, cyber and financial technology are very discrete issues that hold two very different promises and threats. Cyber is on all our minds, regardless of professional discipline. A cyberattack on one of our nation's financial institutions, regulators, or markets could have debilitating consequences on asset prices and the economy. The SEC recently experienced a cyber-attack to its Edgar Reporting System, a fresh reminder of how vulnerable any regulator is at any time. Like international coordination, cyber also conjures the weakest link analogy, given the interconnectedness of technology systems. Although each entity, private institution, or government regulator, must prioritize the protection and safety of its own organization, cyber defense is an all hands on deck exercise that demands both the financial and human resources to protect our institutions, data, identity, and in many cases sovereignty.

Finally, financial technology, or FinTech, has advanced at warp speeds in the past few years. The CFTC's Chairman recently announced the establishment of LabCFTC, which will serves as the agency's "…focal point to promote FinTech innovation and fair competition by making the CFTC more accessible to FinTech innovators and serving as a platform to inform the CFTC's understanding of new technologies."[21] LabCFTC's efforts are unique and have been well received by markets participants as a forward thinking effort by a key regulator to collaborate on FinTech advancements.

Conclusion

Before I conclude, I want to take another moment to thank the Center for Financial Markets and Policy and, of course, all of you for attending. Like I said earlier, it is an absolute honor and privilege to be here today, and I look forward to continued engagement with the university on important financial markets policy in the future.

Much of the devastating effects of the 2008 financial crisis have subsided. The domestic and global economies are strong, stock market indices are near all-time highs, and domestic unemployment is at historical lows. The CFTC's responsibilities have grown, but I am confident its staff and leadership will guide the agency to maintain its position as a premier, world class regulator. With limited resources, the agency's work is often curtailed because its budget has

not rationally expanded to meet its growing jurisdiction. But as always, we will hone our expertise, prioritize where we need to, and continue to demonstrate our proficiency as a premier regulator.

As some policy makers contemplate revisiting financial reform, I believe any changes must be narrowly targeted and surgical to ensure core reforms are kept whole and intact. To expect perfection is foolish; there are certainly unintended consequences. The regulatory shift in the derivatives market was as large as the market itself, and in the coming months and years, the CFTC's initiative to revisit Title VII must be narrow to preserve market integrity, safety, and transparency, while keeping markets accessible for commercial end-users who need to manage business risk. I take my role as a Commissioner very seriously and intend to stay on course, work with my fellow Commissioners, stay in my lane when I need to, but merge when it's appropriate, and above all else, work to ensure we reach the destination together. Thank you.

1 Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (the "Dodd-Frank Act").

2 G20, *Leaders' Statement, The Pittsburgh Summit* (Sept. 24-25, 2009), *available at* https://www.g20.org/Content/DE/StatischeSeiten/Breg/G7G20/Anlagen/G20-erklaerung-pittsburgh-2009-en.pdf?__blob=publicationFile&v=1.

3 Commodity Exchange Act § 3, 7 U.S.C. § 5.

4 Commodity Futures Trading Commission Act of 1974, Pub. L. No. 93-463, 88 Stat. 1389 (1974). *See* Commodity Exchange Act § 1a(9), 7 U.S.C. § 1a(9).

5 Commodity Exchange Act § 2(a)(2)(A), 7 U.S.C. § § 2(a)(2)(A).

6 *Id.*

7 *Id.*

8 Kirti Datla and Richard L. Revesz, *Deconstructing Independent Agencies (and Executive Agencies*, 98 Cornell L. Rev. 769, 770-1 (2013).

9 G20, *supra* note 2 at 9.

10 *Id.*

11 In 2011, the G20 agreed to add margin requirements on non-centrally cleared derivatives to the reforms. G20, *Cannes summit final declaration* (Nov. 4, 2011), *available at* https://www.g20.org/Content/DE/StatischeSeiten/Breg/G7G20/Anlagen/G20-2011-11-04-gipfel-abschlusserklaerung-en.pdf?__blob=publicationFile&v=1.

12 *See, e.g.,* U.S. Department of Treasury, *A Financial System that Creates Economic Opportunities: Capital Markets* (Oct. 2017), *available at* https://www.treasury.gov/press-center/press-releases/Documents/A-Financial-System-Capital-Markets-FINAL-FINAL.pdf.

13 *See* Commodity Futures Trading Commission, *Transaction Dollar Volume by Cleared Status (Millions of USD) (Single-Count); Dollar Volume by Cleared Status*, http://www.cftc.gov/MarketReports/SwapsReports/L1TransDollarVolCS.

14 *See* Commodity Exchange Act § 2(h)(8), 7 U.S.C. § 2(h)(8).

15 *See* 17 C.F.R. §§ 37.10, 38.12.

16 *See* Commodity Exchange Act § 2(h)(8)(A), 7 U.S.C. § 2(h)(8)(A); 17 C.F.R. §§ 37.10(c), 38.12(c).

17 *See* Dodd-Frank Act, *supra* note 1 at §§ 731 and 764. The CFTC's rulemakings implementing capital and margin requirements for non-banks may be found at: http://www.cftc.gov/LawRegulation/DoddFrankAct/Rulemakings/DF_5_CapMargin/index.htm.

18 *See* G20, *supra* note 11 at 5.

19 *See* Commodity Exchange Act §§ 4s(e)(1)(A) and (2)(A); 7 U.S.C. §§ 6s(e)(1)(A) and (2)(A).

20 *See* European Securities and Markets Authority, MIFID II, https://www.esma.europa.eu/policy-rules/mifid-ii-and-mifir (last visited Nov. 14, 2017).

21 Press Release, CFTC, CFTC Launches LabCFTC as Major FinTech Initiative (May 17, 2017), *available at* http://www.cftc.gov/PressRoom/PressReleases/pr7558-17.

Last Updated: November 15, 2017