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Successes of Derivatives Reforms and Continuing Risk Mitigation in Central Counterparty Recovery and Resolution

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Thank you Chair Conaway, ranking Member Peterson and members of the Committee for the opportunity to be here today and to share my perspective on the critical issue of central counterparties' resilience and resolution.

Before I begin, I would like to emphasize that the views I express today are my own and not those of QED Investors or its partners.

My testimony today will focus on three main areas:

First, the importance of the post-crisis reforms to derivatives markets and the central role that clearing mandates and central counterparties play in the effectiveness of those reforms. Second, I will offer the committee a dscription of the potential mechanisms that could result in the failure of a central counterparty. Third, I will discuss key challenges for policy makers to continue to build the resilience and positive role that clearing will play in the stability of U.S. and global financial markets.

Let me start with a clear statement. Dodd-Frank made derivatives markets safer and more stable. These reforms have made our economy stronger, not only because they will help prevent financial crises, but also because the stability and safety of U.S. financial markets is a significant competitive advantage for the U.S. as a global economic power.

In the lead up to the crisis, derivatives markets grew exceptionally rapidly and volume increases were driven significantly by trades made between global banks. The opacity of the market meant that this interconnected web of exposures were neither clear to regulators nor to the firms themselves. The complexity of these markets developed because of the structure of the transactions, the credit relationships between the players, and the weakness of risk management and backend processing capacity. As we saw in the crisis, all three of these weaknesses played major roles in the uncertainty and destruction that the financial crisis brought to towns and cities all across the country.

It is important to understand each of these weaknesses in some detail before discussing the reforms in Dodd-Frank.

The complexity of the market was driven by the structure of bilateral derivatives transactions. Derivatives, or swaps, are mostly long-dated arrangements to exchange one type of risk for another. Unlike a stock or a bond, market participants do not exchange the cash for the security. In a bilateral context, this means that the notional value of a contract was constantly layered on top of previous contracts rather than simply changing hands. To illustrate, if Dealer A buys a bond from Dealer B and later sells that bond to Customer C — only customer C owns the bond at the end of that process. In the bilateral derivatives context, if Dealer A agrees to take interest rate risk from Dealer B in exchange for a series of payments, and then customer C buys that interest rate risk in exchange for a series of payments from Dealer A — both contracts will remain in force for the life of the agreements. Dealer A maintains its interest rate swap with Dealer B, and maintains a separate interest rate swap with Customer C. Played out over thousands of transactions and multiple years prior to the crisis, the complexity of the bilateral arrangements quickly grew to impenetrable density —with very little clarity within dealer systems and essentially no understanding of where risk existed in the system as a whole.

The credit relationships that underlay bilateral derivatives transactions in the pre-crisis period added another significant layer of risk. Because large banks traded largely with important clients or with each other — the terms of these transactions included large quantities of counterparty credit risk, over and above the risk in the transaction itself. Let's take the example of the interest rate swap above. Dealer A and Dealer B would each have longstanding financial relationships with each other, they each had processes to understand the credit risk of the other (e.g. periodic underwriting, credit ratings, etc.), so even when the market value of a long-term swap would move up or down (that is, in favor of A or in favor of B) the dealers would treat that market move as part of a credit relationship — they would treat it as a loan to each other. This meant that billions of dollars of market value could be contractually obligated between dealers on a daily basis, with no margin (in the form of cash or other assets) changing hands. The value of the relationships and the generic trust between counterparties substituted for the rigor of assuring that dealers would be protected from market moves over time. This meant that in the crisis, when market prices moved rapidly and additional margin was sought, dealers were requesting huge sums from one another and from clients. And in the crisis, these sums were significant enough to materially affect the capital and liquidity positions of the largest and most complex financial institutions in the United States.

Moreover, documentation of transactions and reconciliations of errors lagged the transactions themselves by months or more. Putting these three dynamics together, the pre-crisis regime was characterized by complex webs of transactions, with limited to no credit protection against billions of dollars of daily market movement, and woefully inadequate documentation and back office systems to make sense of who owed what to whom and where losses would be registered in extreme market movements.

To make matters worse, there was an explicit statutory bar against the CFTC or SEC taking actions to set standards for this market which, in 2008, was measured at $673 trillion dollars globally.

In the course of the crisis then, not only were derivatives transactions central to the failure of

AIG and Bear Stearns, they were also the very instruments marbled through some of the most toxic securities such as CDOs, CDO squareds, and synthetic CDOs that unraveled in the mortgage meltdown. And in the height of the crisis, as Lehman Brothers failed, uncertainty about the value and the holders of risk transacted in derivatives markets acted as the strongest accelerant of financial uncertainty, panic and contagion.

What then did the Dodd-Frank reforms accomplish?

Most importantly and most directly, Dodd-Frank gave the CFTC and the SEC explicit, comprehensive authority to oversee their respective derivatives markets according to the same standards that we uphold for other financial markets. Strong standards and oversight have made the U.S. a global destination for financial investment and helped support our position as a global economic power.

Next Dodd-Frank required pre- and post-trade transparency for all derivatives transactions, attacking the risk of uncertainty and lack of documentation that featured prominently in the pre-crisis derivatives markets. Dodd-Frank required capital and margin rules for all dealers in derivatives, so that large players could not simply ignore the real financial risks of daily market moves, but had to collect margin from each other and also fund their derivatives positions with shareholder equity and retained earnings — known as capital.

Dodd-Frank also mandated that standardized derivatives be centrally cleared. A centrally cleared transaction allows for the complex web of transactions that I described above to be compressed into transferable units of risk — much more like the transfer of a stock or bond. In doing so, Dodd-Frank created incentives towards standardization both by requiring the CFTC to mandate which standardized contracts must be cleared and with the simple concept that bespoke contracts that remain uncleared require higher margins. Dodd-Frank has changed the way derivatives markets operate for the better, making for deeper, more liquid markets with simpler products and lower risk. This move towards standardization allows for netting on a massive scale, reducing outstanding exposures and risk while increasing liquidity and lowering transaction costs for end-users. This also reduces food, energy, and other costs for farms, businesses, and families across the country.

Lastly, Title VIII of Dodd-Frank extended existing frameworks for the oversight of central counterparties. The benefits of central counterparties extend beyond their role in reducing the complexity of the market. Central counterparties are designed to centralize documentation, reconciliation, risk management, and margin for all their members. This means that well-managed and well-regulated central counterparties do not just centralize the risk of derivatives markets and increase transparency to regulators — they actually transform and reduce that risk.

Perhaps the clearest example of this transformation is in the collection and management of margin. As I described above, market movements in derivatives in the bilateral market, especially in the pre-crisis period, were managed as extensions of credit. But central counterparties are not in the business of extending credit. When a trade is initiated, the participants place cash or securities as collateral at the clearinghouse as initial margin. Then, as swaps contracts change value, at the end of each day, they require each of their members to deposit additional funds equal to their new exposure. In some cases, central counterparties can and do require intraday payments of margin to limit the buildup of risk. While central counterparties follow these procedures to protect their own viability and to follow the standards of their regulators, these procedures mean that the maximum exposure of a dealer to a central counterparty will be the value of one-day's market movements. The rigor of this margin procedure has benefits throughout the system as a whole. It means that for all standardized trades, the question of who owes what to whom is both answerable and limited.

Much of the policy debate about central clearing has suggested that central counterparties themselves now hold and manage significant amounts of risk. This is true. Central counterparties play a more important role in the financial system today than they did before the crisis. But it is clearly also the case that the net risk for the system is reduced by the role of central counterparties. They are entities designed and overseen to manage that risk in a rigorous way — they do not manage derivatives counterparty risk as an ancillary function of their trading businesses. It is also worth emphasizing that within a central counterparty, all trades are matched, therefore the central counterparty itself has no exposure to market risk.

Carefully designed regulatory oversight is critical to the risk-mitigating role of central-counterparties. While the CFTC has vastly greater responsibilities in the wake of Dodd-Frank, its funding and resources have not kept up. In particular, its ability to oversee the swaps markets and its participants and ensure that the benefits of these reforms flow to businesses, farms, and families is severely hamstrung by their current lack of resources. Like other federal financial regulators, the CFTC should be self-funded based on fees from the industry it regulates.

I will also focus briefly on the role of the Financial Stability Oversight Council (FSOC) in designating systemically important financial market utilities. FSOC designation has led to the codification of higher standards for the most critical central counterparties and enabled greater oversight and cooperation between the Federal Reserve, SEC, and CFTC. The policy goal behind designation of central counterparties recognizes that while the CFTC regulates many small commodities/futures exchanges, only those whose failure could threaten the financial stability of the United States should be subject to heightened standards and oversight. When the FSOC designated eight financial market utilities, we did so in a process that relied deeply on the expertise of the primary regulators, minimized data collection burdens on the companies themselves, gave significant access for companies to understand the process and review the Council's draft designation materials.

In addition to higher standards, designation also provides security to the broader system in other ways. For example, by giving designated central counterparties access to accounts at the Federal Reserve, Title VIII allows central counterparties to manage billions of dollars in customer margin without reintroducing the credit risk that would result from placing that customer margin at a commercial bank or investing it in the money markets. Importantly, being able to place cash in a Federal Reserve account does not give central counterparties the ability to borrow from the discount window the way that banks can; it simply removes a potential source of risk for customers that rely on central counterparties to mitigate risk in derivatives markets.

It is also important to note, as you will hear today from other witnesses, that the largest financial firms are deeply supportive of the increased role of central counterparties and clearing in derivatives markets. They recognize the risk management and risk mitigation benefits and share the same goals as this committee – for central counterparties to be well-managed, transparent entities that mitigate risk and facilitate market functioning.

Mechanisms for Failure of Central Counterparties

Policy makers' focus on resilience and resolution of central counterparties reflects a well-founded desire to evaluate and mitigate any well-understood and potentially important risks in our financial system. The focus on central counterparty risk should be understood as part of a responsible approach to risk management — first diagnose the risks, then put controls in place to mitigate, then reassess the remaining risk — and repeat that process. Dodd-Frank examined the risks posed by derivatives markets, put in place mechanisms to mitigate that risk, and now we are left with the residual risk. The regulators' current focus on the potential failure of central counterparties is part of an iterative process of assessing the risk after effective reforms have been implemented and seeking to prepare and mitigate any remaining risk.

In addition to the policy benefits of central clearing enumerated above, the economic benefits of functioning central counterparties are important to understand when considering the possibility of central counterparty failure. In the normal course of business, central counterparties underpin both the value of existing derivatives contracts and the ability of market participants to transact in new, standardized derivatives contracts. Remember that since derivative contracts often last for multiple years, they are integral to long term economic arrangements both for financial institutions acting as dealers and for end-user clients seeking to hedge risk. To take an example, many large corporate loans have floating rate terms but corporate treasurers often pair those loans with interest rate swaps that allow the business to transform that floating rate loan into a fixed rate loan. Therefore, businesses across the country rely on the resilience of central counterparties just as they rely on the smooth functioning of our banking system.

There are three main mechanisms for the failure of a central counterparty. They can be thought of as: a failure caused by cascading defaults of central counterparty members which overwhelm the resources of the central counterparty; operational failure that is unrelated to economic and market conditions; or some combination whereby operational, risk management or modeling problems within a central counterparty lead the resources of a central counterparty to be insufficient in scenarios far less severe than cascading defaults.

The first mechanism for failure has been the primary focus of both central counterparty risk management and policy makers' discussions, in part because it most closely resembles the events in the financial crisis of 2008 and because it is most closely connected to broader policy discussions about how to handle the failure of a large, complex financial company. Under this scenario, central counterparties, which are required to hold financial resources large enough to survive the default of their two largest clearing members, could find those resources overwhelmed by the failure of three or more large members to make timely payments into the central counterparty. Although there are many layers of protection against even this scenario, such a cascade could imperil the central counterparty's ability to make payments to its solvent clearing members. In turn, solvent clearing members may refuse to participate in the ongoing operation of the central counterparty. Importantly, beacause of the resolution planning efforts that the FDIC and the Federal Reserve have undertaken, along with the critical authorities granted the U.S. government in the Orderly Liquidation Authority — even if a large clearing member becomes insolvent, the subsidiaries of that entity which directly engage with central counterparties *should* be able to meet their daily obligations to each central counterparty they are members of. Therefore, while it is important to prepare for and understand these risks, this scenario requires not only the failure of multiple large, complex financial institutions; but also the failure of existing strategies to handle to orderly liquidation of those large, complex financial institutions.

The second mechanism for failure would be a scenario in which the central counterparty is unable to complete its obligations to its members based on internal problems. Importantly, because the risk of central counterparties is absorbed primarily in margin accounts and default funds, this second mechanism of default could happen without any financial stress occurring in clearing members themselves. Given the current threat landscape, the most important potential risk in this area is probably the threat from a malicious cyber attack. While at Treasury, we designed and executed a number of cybersecurity exercises that examined ways that malicious cyber attacks could affect financial stability either by directly or indirectly affecting large money-center banking organizations or central counterparties. One positive takeaway from these exercises is that the spirit of cooperation that firms demonstrated in working to provide assistance to an institution affected by cyber attacks bodes well for our ability to avoid self-destructive financial reactions to a cyber event. One negative takeaway is that our collective ability to identify and respond to cyber attacks that affect critical functions in our financial system needs significant and continuing development.

The third mechanism for failure of a central counterparty would be a scenario in which a central counterparty suffers an economic or market based shock that should be within the economic resources, but due to operational, risk management, or model weaknesses — the liquid financial resources of a central counterparty are insufficient to meet its obligations.

I am not the only person to recognize these potential scenarios. Central counterparties and their regulators have in place mitigating procedures to address different types of distress. I will leave it to my fellow witnesses to elaborate, but each central counterparty has a recovery plan to manage the default of a clearing member and provide ex ante certainty about loss allocation. And market regulators are working at an international level through CPMI-IOSCO to establish best practices for the stress testing of central counterparties' resources. The CFTC conducted their first stress tests of how central counterparties under their supervision would fare under extreme but plausible market stress in the fall of last year.[1]

However, if any of these scenarios were to come to pass, it would put distinct pressures on the U.S. financial system and on U.S. regulators. And it is important to note that derivatives are a global business; so it is unlikely that the U.S. would be the only market affected. Significantly more work will need to be done to understand what authorities would be brought to bear and what strategies would be used to maintain the critical functions of the central counterparty and to

[1] http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/stresstestpresentation111616.pdf

maintain market confidence in the flow of payments through derivatives markets.

Policy Priorities and Policy Challenges

When considering the policy priorities ahead, the first obligation must be to preserve the gains to stability and safety that we have made since the financial crisis. Above, I described the significant achievements of the Dodd-Frank Act in reducing risk and transforming transparency of global derivatives markets. Equally important is maintaining the tool of the Orderly Liquidation Authority. This is the central answer to the horrible dilemma that faced U.S. policy makers in the fall of 2008 — should they allow another disorderly bankruptcy like Lehman Brothers or a deeply unfair bailout like AIG. The practical effects on small businesses and farms from those events should be motivation enough to maintain and support these reforms. Estimates of lost output due to the crisis, and due to the lack of tools to contain the damage are $10 trillion or more. And those estimates do not include the incalculable pain and suffering of families who lost jobs, houses, farms and lives because of their economic suffering.

Many members of this committee have already voted to eliminate this authority, but it must be stressed that removing this authority from the U.S. toolkit would be misguided, shortsighted, and deeply irresponsible to the taxpayers that members of this committee represent. Removing the orderly liquidation authority would be misguided because the purported savings that the CBO has scored with this proposal are a mirage. They appear simply because of an accounting quirk in the budget window. By law, taxpayers cannot bear losses for any entity liquidated by the FDIC as part of the orderly liquidation authority. It would be short-sighted because it would suggest that policy makers had forgotten the immense pain and suffering families all across this country faced when the crisis-induced panic ripped through global financial markets and hurt families and small businesses most of all. It would be deeply irresponsible for taxpayers, because in the absence of this authority — we would be explicitly returning to the policy framework that gave birth to the TARP program of bank bailouts and taxpayer bailout risk. Orderly liquidation authority is the best tool the government has to provide predictability, fairness, and financial stability even as it allows any large, complex financial firm to fail because of their own mistakes.

It may also be helpful to note that there is no serious debate about whether orderly liquidation authority can be used to resolve a central counterparty. While the Dodd-Frank Act does not explicitly reference financial market utilities when discussing orderly liquidation authority, the authority is written deliberately to allow for its use with ANY nonbank financial company whose failure could threaten financial stability. Financial market utilities are very clearly nonbank financial companies and therefore fit squarely within that authority. Importantly, while the resolution approach for a central counterparty will likely not mirror the approach that has been developed for bank holding companies, the core authorities that are needed to facilitate any successful resolution are included in orderly liquidation authority. These authorities include the ability to allocate losses — by utilizing pre-funded resources, assessing members or tearing up contracts — and to provide liquidity. If a central counterparty were to need to be resolved, the resolution authority would ‘step into the shoes’ of the central counterparty, assuming responsibilities (principally operation of the central counterparty and the payment of variation margin) and rights. The rights of the central counterparty are laid out in an extensive rulebook that serves as a contract between the central counterparty and its clearing members. U.S. central counterparties have expansive powers in extenuating circumstances, if necessary, the FDIC would assume these powers and have at its disposal tools to affect recovery or orderly wind down of the central counterparty's operations.

Going forward, I would like to highlight three key challenges for policy makers: coordination across multiple central counterparties; cross-border cooperation; and the need to develop resolution strategies that create *ex ante* incentives for positive risk management and for recovery.

The first challenge is coordination across multiple central counterparties in the event of default or multiple defaults. As discussed above, one mechanism for central counterparty failure would be cascading defaults among clearing members. Because derivatives trading is a highly concentrated industry, each of the major derivatives dealers is a member of virtually all the major central counterparties; and may be a member of dozens of central counterparties worldwide. Even in a scenario with just a single dealer default — a scenario that is very unlikely to threaten the viability of a central counterparty — the need for coordination among U.S. and European central counterparties to avoid confusion or uncertainty about market functioning will be necessary. Here U.S. regulators have taken to heart the lessons of central counterparties own fire drills (semi-annual events where they simulate distress scenarios with clearing members) and our experience working with industry on cybersecurity exercises, to begin both coordinated and cross-border exercises to understand and iron out potential points of friction and misunderstanding. As I learned in my experience in government, often simple arrangements for collaboration and communication are enough to avoid market confusion and destabilizing market movements.

Secondly, efforts on cross-border regulatory cooperation are essential, and have quietly had a number of important successes in the years since the crisis. Even before the crisis, market regulators like the CFTC and SEC regularly worked with international counterparts through Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions (CPMI-IOSCO). In April 2012, these standard setting bodies published Principles for financial market infrastructures (PFMI), which are a set of 24 principles that apply to FMIs including central counterparties on areas including credit and liquidity risk management and default management. It has been the responsibility of local authorities to codify rules and regulations customized for their jurisdiction that are broadly in line with these principles. This means that U.S. firms operating globally will have confidence in the risk management procedures and the rights that they will have when they participate in global clearing houses.

Since 2013, CPMI-IOSCO has performed a series of jurisdictional assessments to mark progress on compliance. In August 2016, their first report on financial risk management and recovery practices in place at a selected set of derivatives central counterparties, found that central counterparties have made important and meaningful progress in implementing arrangements, but identified some gaps and shortcoming in certain jurisdictions. A follow-up assessing the further progress is expected this year. These mechanisms for accountability are a critical support for the agreement to global principles that U.S. Companies need. By providing ground for assessment, we can increase our confidence that other countries do not seek unfair advantage by lowering their standards and our confidence that our companies will be protected when they pursue global business opportunities.

Regulators have also recognized that analysis of central counterparties cannot be done in isolation by market regulators; since clearing members and their clients are financial institutions, it is also important to coordinate with the Financial Stability Board (FSB) on issues related to resolution and the Basel Committee on Bank Supervision (BCBS) on bank exposures to central counterparties. In 2015, a joint workplan[2] was published and the committees are continuing to coordinate among themselves and provide public updates[3] on progress. This international, principles-based coordination does not supersede the ability and, indeed the necessity, of U.S. regulators to create granular standards and supervisory rules for central counterparty resilience, recovery and resolution. U.S. regulators have also successfully worked bilaterally with jurisdictions like the EU as they seek to create authorities to handle the potential failure of a central counterparty in their jurisdiction. Our close engagement has allowed us to seek alignment based on an understanding of the tools local jurisdictions will need to address the failure of a central counterparty and enable cross-border coordination in the event of broader market distress.

The successes of international coordination have also included private sector partnerships, such as an agreement to change the standard global derivative contract (known as the ISDA protocol) to avoid damaging withdrawals from a firm that is undergoing resolution. This agreement was led by industry in cooperation with regulators and will significantly increase our ability to limit the damage to the economy if a large, complex financial institution fails.

The third challenge is to develop and clarify the specific strategies and parameters around tools that will be used by central counterparties, the CFTC, and the FDIC to handle the unpredictable losses that will attend an unsuccessful recovery and move a central counterparty into resolution. This was an important element of my own efforts within government last year, and it was a deeply collaborative effort — both between U.S. regulators and with other stakeholders. While I look forward to engaging with the committee about some of the specific tradeoffs in developing those strategies and parameters, I want to first lay out the basic problem. There is a necessary tradeoff between giving ex ante certainty to stakeholders and giving regulators the flexibility to manage a situation that we have never before faced. Making this more complicated, the incentives of central counterparty management, clearing members and other market participants need to be compatible whether we are talking about resilience, recovery or resolution.

Necessarily, the interests of these parties cannot be perfectly aligned. In the normal course of business, private sector entities want to optimize the amount of capital they commit to the safe operation of central counterparties; this is why regulators have imposed rules about initial margin and collateral quality. The same must be done for more extreme cases where both central counterparty management and market participants will be focused on minimizing their own exposure to losses. There are creative solutions already in place to align incentives in recovery; for example, some central counterparties 'juniorize' the pre-funded resources of clearing members who submit poor bids in auctions.

For resolution, regulators must work with other stakeholders to both strike a balance between flexibility and certainty, ensure that solutions follow laws that prevent taxpayer risk, and endeavor to make incentives for orderly wind down, liquidation or complete recapitalization as

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2 http://www.iosco.org/library/pubdocs/pdf/IOSCOPD508.pdf

3 http://www.iosco.org/library/pubdocs/pdf/IOSCOPD509.pdf

compatible as possible among market participants. There is not yet agreement on how best to do this. To highlight just one example, central counterparties argue that their members, who bring market risk to the central counterparty, should be subject to broad, but not unlimited, capital assessments to recapitalize the central counterparty. Clearing members and their trade groups have suggested that central counterparties be required to issue long term debt that could be converted to equity if the central counterparty needed to be recapitalized. As stakeholders continue to explore these questions, keeping our focus on creating incentives for each group that are compatible with market stability and resilience is an important and achievable aim.

The work of financial stability monitoring is never finished, but we must remain mindful of the progress we have made since 2008. Safe, stable markets are a U.S. competitive advantage and are good for business; markets thrive where rules are clear and integrity is valued. Central clearing of standardized products has materially improved the resilience of our financial markets. It has increased transparency, efficiency and raised the bar on risk management standards. Progress has been made on strengthening the recovery tools at central counterparties; there are more assets available for loss allocation and market participants have worked and continue to work with regulators to stress test the adequacy of those assets and increase clarity about what would happen in the event of a large counterparty default. With these measures in place and regulatory and cross-border coordination continuing, it is important that we continue to explore solutions for resolution. Most importantly, there is no viable approach to these challenges without existing orderly liquidation authority. While we do not yet have complete strategies and tools to handle the resolution of a critically important central counterparty, the only way to avoid catastrophic outcomes in that event, will be to build those tools on the foundational authorities