Remarks of Jeffrey M. Bandman
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Global Risk Management Forum, June 23, 2016
New York, NY

Thank you Stephan so much for that warm introduction.

It is a pleasure to join so many risk experts from around the world gathered here to discuss these important topics. I am very pleased to see such a mix of economists, quants, lawyers and compliance specialists to bring a range of perspectives.

Today’s timing is notable, as the British people go to the polls to vote on their relationship to Europe. Regardless of today’s outcome, the attention to that vote, the preparations so many of us have made and the impacts we have already seen show the interconnectedness of the financial system and its attendant risks.

**CCP Safeguards and Risks**

In my remarks today, I will be focusing on safeguards and risks relating to clearing and to central counterparties, or CCPs. Clearinghouse strength and resilience is more important than ever. It is an area where collaboration across the globe has been immensely beneficial. I can think of no more important issue – and no better topic to discuss at this Global Risk Management Forum. So today, I’d like to share a few thoughts:

- on current international developments;
- on CCP recovery and resolution;
- on the prospect of a “macroprudential” approach to CCPs, including supervisory stress tests;
- on what’s new in customer protection; and

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• on opportunities and threats associated with new technology.

And then I’d be pleased to take any questions.

Progress in Implementing Clearing Mandates

As you know, a key component of the G-20 leaders’ framework to reform the over-the-counter swaps market in 2009 was to mandate central clearing of standardized swaps. We have made great progress in the implementation of that commitment in just a few short years.

In the United States, clearing is now mandated for most interest rate and credit default swaps. Today, approximately 75 percent of swap transactions are being cleared, as compared to only about 15 percent in 2007. The implementation of Europe’s mandate began just this week, and the mandates of other jurisdictions are taking, or will soon take, effect.

And just two weeks ago, the CFTC proposed new clearing mandates for interest rate swaps denominated in the currencies of several additional jurisdictions. These are mainly jurisdictions that have mandated clearing or are expected to do so soon. They include Australia, Canada, several European Union countries, Mexico, Hong Kong, Singapore and Switzerland. And in many of those jurisdictions, this proposal would make our clearing requirement consistent with those that already have been proposed or finalized. This proposal is open for public comment and we welcome your feedback.

This is an important step that will bring further standardization and transparency to the swaps market, while reducing risk within the system. It brings us closer to realizing the agreement of the G-20 leaders. And it is another significant step in harmonizing our requirements with our counterparts abroad.

The Importance of Clearinghouse Resilience

This very progress has made it even more imperative that we make sure clearinghouses are strong and resilient.

Some have raised concerns about whether this new emphasis on central clearing is creating new concentrations of risk within the financial system. I would first
note that significant work has been done to increase the resilience of CCPs. The development of the PFMI s themselves was a major advance in addressing CCP resilience. And this has been supplemented by subsequent guidance, including guidance on Recovery of Financial Market Infrastructures and on quantitative disclosures, as well as the FMI Annex to the Key Attributes dealing with CCP resolution.

Some of the more frequently voiced concerns include the following:

- Are the PFMI s sufficiently detailed? Should more granular guidance be given?
- What are the appropriate tools for recovery, and who should be at the table when decisions must be made regarding recovery?
- What are the necessary and appropriate powers for a resolution authority? When should a resolution authority intervene?
- What are the interdependencies between clearinghouses, systemically important clearing members, and their affiliates? This is particularly of concern because the largest members are often active at multiple clearinghouses, and they or their affiliates may be providers of services to clearinghouses, such as liquidity facilities payment and settlement services or other services.
- Do we need a greater “macroprudential framework” when it comes to CCP regulation? What might a macroprudential approach entail with regard to stress testing, margin or the clearing ecosystem?

I believe that it is possible to devise good, pragmatic approaches to all of these concerns, and I believe we have already accomplished a great deal in that regard. So I would like to briefly highlight how far we’ve come, and then offer some thoughts on where we are going.

**CFTC’s Domestic Efforts**

In the United States, the CFTC’s Division of Clearing and Risk (DCR), which I run, has been involved in the oversight of clearinghouses for many years. And since the global financial crisis, we have been particularly focused on the resiliency of clearinghouses.

We have substantially strengthened our requirements regarding risk management and transparency. We did an extensive revision of our rules and incorporated
international standards—the Principles for Financial Market Infrastructures, or PFMI—into our regulations. We strengthened customer protection measures—I will return to this subject later. And we have enhanced our examination, compliance, and risk surveillance programs.

We are actively working on recovery planning and the adequacy of resources and procedures applicable in the event of a major problem. This includes exploring how clearinghouses implement auction procedures to increase efficiency and participation; considering under what circumstances and to what extent gains-based haircutting is an appropriate tool to allocate losses; examining the tools available to a clearinghouse, such as juniorization and partial tear-ups, in order to ensure that they can re-establish a matched book; and discussing the governance mechanisms over the use of recovery tools—and the transparency regarding the potential use of those tools. Over the remainder of this year, we will be closely reviewing proposed recovery rule filings as well as recovery plans from our major clearinghouses. We held a public roundtable on these subjects last year, and I expect we will soon be providing some public guidance in this area as well.

Resolution Plans Must Be Designed to Encourage Recovery. We are also working actively with other U.S. regulators on resolution planning. To this end, we held a joint tabletop distressed CCP simulation exercise this past spring. My DCR colleagues and I will be making a joint presentation with the FDIC on CCP resolution at the CFTC’s Market Risk Advisory Committee this coming Monday, June 27. This is open to the public and I encourage you to watch or attend.

Recovery and resolution planning are seen as a continuum: if a CCP cannot get back to a matched book and replenish its resources through recovery tools, then authorities may choose to invoke a resolution plan. Resolution may also be invoked if the resolution authority determines that the use of available recovery tools is likely to compromise financial stability.

Resolution does not mean liquidation in this context, but rather a phase where a government authority with certain resolution-related powers steps in to ensure the continuity of critical functions. Much of the discussion of resolution focuses on questions like: at what point should a resolution authority intervene? Should there be specific tools and resources reserved for exercise by the resolution authority in the resolution phase? What is the proper balance between giving the resolution authority flexibility and having predictability regarding tools, potential assessments, or other features? Should there be a “presumptive path” for the
actions of a resolution authority, or “constructive ambiguity” as to what it may do and when? If resolution is invoked to avoid the use of recovery tools that might compromise financial stability, how can we ensure that the resolution authority’s use of its own tools won’t have a similar effect?

These are appropriate questions to ask. And in addressing those issues, we must remember that the incentives that may be created by resolution plans — intentionally or not — can create or affect recovery prospects. If, for example, clearing members believe they will get a better outcome in resolution than in recovery, then they may have an incentive not to facilitate recovery. That is, they may be less willing to step up to bid in an auction or take on positions of a defaulting member if they think that under resolution, they would absorb fewer losses or improve their economic or governance rights in the CCP. They may not be as willing to support replenishing a CCP’s resources in recovery if in resolution they expect to get more in return for doing so. So our resolution planning must not create incentives that undermine recovery.

**International Efforts**

Internationally there has been great progress as well. One important example of international cooperation was the recent agreement the CFTC reached with the European Commission this past February, which sets forth a transatlantic “common approach” regarding requirements for CCPs. This agreement resolved the issues that were standing in the way of Europe “recognizing” U.S. CCPs. And it thereby helps to make sure that the U.S. and European derivatives markets can continue to be dynamic, with robust competition and liquidity across borders. It provides for some modest changes on both sides of the Atlantic that will help bring our regimes closer together and reduce the possibility of regulatory arbitrage.

Since that announcement, we have lived up to our end of the bargain, as the CFTC issued a comparability determination in March. This established a substituted compliance framework for EU CCPs, so EU CCPs can demonstrate compliance with discrete aspects of our regime by complying with provisions under their own laws. And most recently, the first formal recognition of a US clearinghouse by the European Security and Markets Authority, or ESMA, was announced just last week, with respect to CME Clearing.
Another example is our work on exemptions from CFTC registration for CCPs located outside the United States that wish to clear proprietary swaps trades for U.S. clearing members and their affiliates. Last year the CFTC granted clearinghouses located in Australia, Japan, South Korea and Hong Kong this “Exempt DCO” status.

And earlier this month, DCR issued a no-action letter to Shanghai Clearing House. This will allow Shanghai Clearing to temporarily clear swaps subject to mandatory clearing in China for proprietary trades of US clearing members and their affiliates. This marks the culmination of months of work among staff of the CFTC, Shanghai Clearing and the People’s Bank of China. This relief is designed as an interim measure, as Shanghai Clearing intends to apply soon for Exempt DCO status.

**Multilateral Work on CCP Resilience, Recovery and Resolution**

There is much more going on with respect to CCP resilience across borders internationally. As many of you know, last year the chairs of the Financial Stability Board’s Supervisory and Regulatory Cooperation Committee and Resolution Steering Group, the Committee on Payments and Market Infrastructures (CPMI), the International Organization of Securities Commissions (IOSCO) and the Basel Committee on Banking Supervision agreed to a CCP work plan that has four major elements. We are co-chairing some of this work and participating in all of it.

The first element involves examining whether more granular regulatory standards should be issued to increase CCP resilience, such as the standards on margin methodologies and the resources available to a clearinghouse in the event of a default. The second is to assess the adequacy of standards and guidance for CCP recovery tools and plans. The third is developing standards for credible resolution plans. And the fourth element is examining the interdependencies between and among CCPs and large clearing members.

There will be public reports on these workstreams, beginning later this summer with reports on the resilience issues.

All this work covers many issues worthy of discussion at this conference and elsewhere. I cannot cover them all, so let me highlight a few key considerations.
Daily Risk Management is the Key to Resilience. While we need to plan for recovery and resolution of a clearinghouse, we must remember that clearinghouse resiliency is primarily about daily risk management. Often times, the activities that comprise ongoing risk management don’t get much attention when we talk about clearinghouse resiliency. But those activities, carried out by the clearinghouse, clearing members and regulators, are essential. I’m referring to daily margining practices, stress and back testing, oversight, and ongoing risk surveillance. No recovery plan — and no set of rules – can take the place of these everyday activities. And because these activities involve the clearinghouse and its members—which do not always have identical interests and incentives — transparency and proper governance around these issues are critical also.

Is There a Need for A Greater Macroprudential Framework? There has been some attention paid recently to whether we need a greater “macroprudential framework” for CCP regulation. Generally, this refers to regulation with the objective of mitigating systemic risk, and with a scope that includes the financial system generally, rather than a focus on individual entities. 2

First I would note that macroprudential considerations are already present in CCP regulation.

For example, the PFMIs require a CCP to have robust risk controls and contingency plans that are appropriate to promote CCP’s ability to operate in a safe and sound manner during a stress event or a participant default, and to minimize the risk of widespread disruptions to the larger financial system. And I think much of the international work currently going on regarding CCPs will further address these concerns.

“Supervisory Stress Tests”

One element of a “macroprudential approach” involves the notion of supervisory stress tests. These are sometimes referred to as “regulatory stress tests”. By either name, these would be stress tests that consider the impact of the

propagation of stressful events across multiple clearing members at multiple CCPs. An example might be looking at the impact of simultaneous extreme but plausible movements in equity indices, energy prices and interest rates – applied across all the CCPs included in the stress tests. These would therefore highlight systemic impacts, as well as interdependencies across CCPs and their clearing members. Developing this type of framework should be a worthwhile priority both domestically and internationally. My division looks forward to contributing to this work.

I would note that this approach is different from the idea of a one-size-fits-all stress test to measure all individual CCPs against. No two CCPs are exposed to the same sources of risk.\textsuperscript{3} The CCPs supervised by the CFTC range from highly diversified to highly specialized in their mix of products and asset classes. I have trouble seeing the utility of this sort of one-size-fits-all “standardized” stress test for CCPs; indeed such an approach may produce misleading outcomes.

**Antiprocyclicality**

It has also been postulated that a macroprudential approach should focus on the impact of CCP margin practices on “procyclicality” in the system. Conceptually, this would involve maintaining stable and conservative margins that would not fall too low in benign times, and would not be increased sharply in stressed conditions. A concern typically expressed involves a scenario where a CCP facing a certain risk needs to increase its margins – clearly prudent from a risk management perspective. The impact of increased margins on clearing members may be ”procyclical” in calling for more collateral, perhaps rapidly, at a time when resources are scarcer or more costly.

Measures to combat procyclicality are sometimes referred to as “antiprocyclicality” measures – quite a mouthful!! or “APC measures” for short.

It has also been suggested that CCPs should measure procyclicality by using quantitative metrics, that they should include considerations related to procyclicality or APC in their margin model validation practices, and that they should use also quantitative metrics in assessing the effectiveness of their margin practices from an APC perspective.

\textsuperscript{3} See David Bailey, Central Clearing: setting the regulatory bar, p. 5

Some of these measures and metrics may indeed prove effective and valuable in the years ahead. These are early days. Today, there is not yet any agreed definition of “procyclicality” or “antiprocyclicality” with meaningful degrees of applied granularity. There is no consensus on what the best measures are to address these concerns, nor whether they should be applied alone or in combination with other measures. It has been observed that any empirical evaluation can “only be considered preliminary” as procyclicality is really best evaluated after observation of a full credit and business cycle. Relevant metrics have been proposed and discussed in roughly a handful of public papers to date – a very thoughtful start, to be sure; perhaps eventually a more reliable foundation will be established for data-driven public policymaking.

I do believe it is important to remember to consider these measures, like any other aspect of risk management, on a holistic basis, and not in isolation, not as an end in and of themselves.

One additional note – it has also been suggested that the practice of “net margining” for customers – as contrasted with gross margining – may have APC impacts as well. Net margining may result in steeper calls on customers to provide margin to meet their obligations in stressed conditions, at a time when they are least able to do so, and when they may not have been required to do so in more benign times. This may be of greatest concern in regimes where net margining is permitted alongside margin financing -- where clearing members are allowed to lend margin to their customers rather than being required to collect it, and where in practice the clearing members are not already collecting full customer margin.

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4 See e.g. ESRB REPORT ON THE EFFICIENCY OF MARGINING REQUIREMENTS TO LIMIT PRO-CYCLICALITY AND THE NEED TO DEFINE ADDITIONAL INTERVENTION CAPACITY IN THIS AREA, July 28, 2015, p.2
5 Ibid.
6 Ibid. p 3 “The following proposal is aimed at stimulating a CCP’s governing bodies to consider and adopt a holistic anti-cyclical stance, which takes into account all the various components of a CCP’s risk management.”
7 To give an oversimplified example of “net margining”, if a clearing member has two customers, one long 100 contracts and one short 100 contracts, the member can post margin to the CCP after netting those exposures. In gross margining, the member would have to post full margin to the CCP for each of those positions without offsetting them. In practice under net margining a clearing member may have collected full margin from both customers even if not required to do so. Where “margin financing” is permitted, the clearing member may show collection of margin for the full 100 contracts from each customer on its books, but in fact may have lent the margin to the customer and be charging it a financing fee, in which case the clearing member will not have actually collected the margin prior to arrival of stressed conditions or default of another customer.
I look forward to continued development and discussion on these subjects, and I believe that we will be able to contribute here as well.

**It’s Not Just About the CCP.** Perhaps a macroprudential approach to CCPs could look not just at interconnectedness, but at the overall health of the clearing ecosystem holistically. The issues of CCP resilience, recovery and resolution involve clearing members, not just the CCP. And in systems where clearing members stand behind transactions, the robustness of the clearing member ecosystem is critical to the success of central clearing and the health of CCPs. We cannot ensure resilience simply by minimizing the risk of failure of particular institutions; we must take a holistic perspective, and consider the overall system, its overall resilience, and its ability to respond if there is a problem.

Let’s consider what happens if there is a default by a clearing member. For example, when firms like Lehman Brothers and MF Global collapsed, clearinghouses were able to run successful auctions and transfer customers’ positions to other firms quickly and seamlessly. Other clearing members were able to step up. We must continue to have that ability today.

There are many factors that affect the ability of the clearing member industry to respond as it has in the past to mitigate the risk of contagion effects of a member default. One that has received some attention is the potential effect of the leverage ratio on incentives to clear as well as its impact on clearing capacity itself. This turns on how the leverage ratio measures a clearing member’s exposure arising from cleared derivatives, and whether the risk-reducing properties of CCP margin are recognized. It may also be helpful to consider the implications of the impact of the leverage ratio from a macroprudential perspective. Are these systemic impacts that may harm financial stability in a future period of stress or crisis? Are there measures to mitigate or avert those systemic risks?

I want to be clear about two separate but important risks, risks that could exacerbate contagion in a crisis.

First, there is a risk that once the CCP has hedged the defaulting member’s portfolio and largely neutralized its risks, the surviving healthy clearing members will lack capacity to bid for that portfolio in the CCP auction – thus unnecessarily
heightening rather than mitigating systemic risk. I remind you that these portfolios are close to risk-neutral at the time of auction, yet lack of capacity may well restrict bidding. That creates an unhealthy predicament for the CCP – greater risk of an unsuccessful auction, forcing it to alternative measures.

Second, there may be no clearing member able (even if willing) to take on the customers of the defaulting clearing member, even though those positions are accompanied by suitable margin to mitigate default risk, because that margin is not credited against its leverage ratio. I should also note the likely effect in such a scenario is highly procyclical. In the absence of a new home for those customers, their positions will be liquidated in a stressed market. Moreover, customers’ ability to enter into new trades to replicate their hedges will be constrained, leading to market distortions.

The Basel Committee is currently doing a consultation on this topic, the July 6 deadline for comments is fast approaching.

So there are a number of areas that may fall under the “macroprudential” rubric for CCPs – supervisory stress tests, margin procyclicality, interdependencies, and perhaps the overall health of the clearing ecosystem. We must proceed in this area mindful of the challenges. I believe in particular that the work we are pursuing on regulatory stress tests is a good step forward. So is the work to examine interdependencies between clearinghouses and clearing members, and to develop cross-border approaches to recovery and resolution planning. And I look forward to seeing the work around APC progress from theory toward science.
I hope we can continue to have a robust dialogue on these important topics.

Customer Protection

Another area where DCR staff are actively working on advancing clearinghouse resiliency involves the safety of collateral and customer protection. Title VIII of the Dodd-Frank Act includes a provision that allows systemically important derivatives clearing organizations, or SIDCOs, to establish and maintain depository accounts at a U.S. Federal Reserve Bank. Because Federal Reserve Banks are the risk-free depository for U.S. dollars, we believe that SIDCOs with access to Federal Reserve deposit accounts would be better equipped to handle a liquidity event.
Earlier this month, the Commission proposed a limited exemption from certain provisions in the Commodity Exchange Act to help SIDCOs access these accounts for customer funds they hold. Customer funds (including cash, securities and other collateral) held at SIDCOs under CFTC jurisdiction today exceed $115 billion and represent approximately 76% of total initial margin held at SIDCOs (as of June 15, 2016). With respect to customer funds, Federal Reserve Banks would continue to be held to the standards of liability that currently apply to them as depositaries under the Federal Reserve’s regime, which have been developed over 100 years of reserve bank operations. These standards would apply rather than the standard of liability developed under the Commodity Exchange Act for custodial banks without regard to the unique nature of federal reserve banks.

This proposal is open for public comment and we look forward to your feedback.

New Technology – Opportunities and Threats

Let me turn to some other priorities. Regulators must often look back to address the causes of past failures or problems. But we also must look forward. Markets constantly evolve, and we must strive to create a regulatory framework that works for the new challenges and opportunities ahead. So I’d like to wrap up by touching on two topics in this context, as they apply to clearinghouses - cybersecurity and blockchain. Blockchain of course is also referred to as distributed ledger technology or DLT

Cybersecurity. I would also like to finalize our proposed rules related to cybersecurity for our clearinghouses in the coming months. The threat of a cyberattack is perhaps the greatest single threat to the safe and orderly functioning of our markets today. In late 2015, the Commission unanimously proposed systems safeguard rules designed to make sure that the private companies which run the core infrastructure under its jurisdiction— the clearinghouses that my division oversees, as well as exchanges and swap data repositories overseen by the Division of Market Oversight – are doing sufficient evaluation of cybersecurity risks and testing of their own cybersecurity and operational risk protections.

DCR is currently considering the comments we have received thus far, and we are also working on proposed final rules to submit to the Commission.
**Distributed Ledger Technology**

I’d like to close by spending a few minutes discussing blockchain, also referred to as distributed ledger technology, or DLT.

I’d like to remind you that these are still early days, and reiterate that the views I’m expressing are just my own.

Work is being done in DCR, and elsewhere at the Commission, to monitor the evolution of this new technology – its uses, use cases, some of the proof of concept initiatives taking place. This involves meeting with some of the movers in this space, ranging from small start-ups and entrepreneurs to some of our largest registrants. I would note that we are a market regulator, not a think tank or venture capital firm – our limited resources and extensive responsibilities require us to manage our time efficiently in this regard. An interdivisional staff working group, which I chair, has been formed to ensure good communication across different parts of the agency in monitoring developments in distributed ledger technology and virtual currencies, and we are engaging with other regulators, domestic and international, as well. Some of you may have attended our Technology Advisory Committee earlier this year, where one of the sessions was devoted to blockchain technology. Chairman Massad as well as our Commissioners have been outspoken regarding the tradition of dynamic innovation that has been a hallmark of the success of the derivatives industry in our country. The CFTC has long fostered this foundational benchmark strength.

Clearing and settlement is one of the areas that has been most widely identified as a potential opportunity for this new technology to bring powerful efficiencies as well as change, disruption or even transformation. My division is responsible for overseeing the safety and soundness of derivatives clearinghouses – there are vital interests at stake here including:

- Customer protection
- Prudent risk management
- Proper controls
- System safeguards

I am heartened to see how the dialogue has been evolving since some of the early, exuberant libertarian days. Some of the initial concepts – for example,
reliance on an anonymous, permissionless ledger – seemed a bit troubling to me when applied to mission critical systems and operations of a derivatives clearinghouse. While we have a principles-based framework, we hold our registrants responsible for maintaining proper controls, for maintaining a clear audit trail, for protecting customer collateral.

Some of the newer concepts sound more promising to me. A ledger network comprised of a small group of trusted, known participants – that framework sounds a lot more familiar. That sounds like a framework that as a clearinghouse regulator I may be able to get comfortable with far more readily than the anonymous permissionless approach. A node for regulators built in from the outset – another promising idea.

To take another example, the idea of a “smart contract” that consists of immutable code, that executes automatically and cannot be stopped by any external intervention, also sounds troubling in some regards. What if there is an error, an unforeseen circumstance or a malicious external act, like the recent Decentralized Autonomous Organization hack? Where are the operator controls? Where is the kill switch? If, however, a smart contract can be designed to encompass safe controls and responsible intervention, I see a more promising path.

So as our registrants, existing and new, move from proofs of concept to implementation in business as usual and mission critical systems, I expect we will be open minded, while looking closely to ensure that our core principles are observed and that the vital interests we protect are safeguarded. I would note that derivatives CCPs differ from other types of clearing and settlement infrastructure in that the work of the derivatives clearinghouse does not end when a transaction occurs. In many ways it is just beginning. In fact, the positions can stay open for months in the case of futures, and years in the case of swaps – involving risk management, margin calculations, collateral management and so on – with enormous implications for systemic stability.

**Conclusion**

So thank you so very much for inviting me again today.

Let me conclude on this note: Central clearing remains one of the great innovations of modern finance. And the work going on today on CCPs is critical to
understanding the safeguards and risks, making sure the model of central clearing remains sound, and our financial system remains strong. And that is critical, as our task should be to not just fix the failures of the past, but to create a framework for the growth and innovation of the future.

And with that I’d be pleased to take your questions.