THE EFFECTIVE REGULATION OF THE OVER-THE-COUNTER DERIVATIVES MARKET

HEARING

BEFORE THE

SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT SPONSORED ENTERPRISES

OF THE

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WITNESSES

TUESDAY, JUNE 9, 2009

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

THE EFFECTIVE REGULATION OF THE OVER-THE-COUNTER DERIVATIVES MARKET

Tuesday, June 9, 2009

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CAPITAL MARKETS,
INSURANCE, AND GOVERNMENT
SPONSORED ENTERPRISES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:40 a.m., in room 2128, Rayburn House Office Building, Hon. Paul E. Kanjorski [chairman of the subcommittee] presiding.

Members present: Representatives Kanjorski, Ackerman, Sherman, Baca, Lynch, Miller of North Carolina, Scott, Maloney, Bean, Klein, Perlmutter, Donnelly, Carson, Speier, Foster, Minnick, Adler, Kosmas, Himes; Garrett, Price, Castle, Lucas, Manzullo, Royce, Biggert, Hensarling, Bachmann, Neugebauer, McCarthy of California and Jenkins.

Ex officio present: Representative Bachus.

Also present: Representatives Waters, McMahon, and Lance.

Chairman KANJORSKI. This hearing of the Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises will come to order. Pursuant to committee rules, each side will have 15 minutes for opening statements. Without objection, all members' opening statements will be made a part of the record.

I want to recognize and welcome Ms. Waters, a member of the full committee, participating in today's subcommittee hearing. And I ask unanimous consent that Mr. McMahon be allowed to participate in today's hearing. Without objection, it is so ordered.

Today, we meet to consider another area of our capital markets woefully lacking in effective regulatory oversight, over-the-counter derivatives. Within less than 3 decades, over-the-counter derivatives have become a staggering $500 trillion market in notional value. This market also has the potential to cause considerable harm. Last year, AIG infamously came crashing down because its lightly-regulated Financial Products Unit engaged in credit default swaps in the over-the-counter markets without holding sufficient capital to hedge the risks.

Since at least 1994, I have advocated for increased regulation of our derivatives markets. That year, I helped introduce the Derivatives Safety and Soundness Supervision Act, which sought to en-

hance the supervision of derivatives activities of financial institutions.

In the years since then, I have backed other bills aimed at improving transparency in, and enhancing the oversight of, our derivative markets. While it has taken than I would have liked, I am pleased that we are now finally beginning to approach a consensus on these matters. The ongoing financial crisis has made it apparent to nearly everyone that we must move the over-the-counter derivatives market from one that takes place under the table to one that happens out in the open. In short, the time for common-sense regulation of this vast industry has arrived.

In a letter to Congress last month, the Treasury Secretary outlined his regulatory proposals for increasing transparency and efficiency in the derivatives markets, reducing risks in the overall financial system and preventing market manipulation. I look forward to seeing the Administration's legislative language, fleshing out its general principles in the very near future.

While the Agriculture Committee is showing considerable interest, it is also important that our panel educate itself and act on these matters. The Administration's outline recognizes this reality. Together, I believe that both committees can take action to implement the broad concepts contained in the Treasury Secretary's plan. Moreover, we ought to move swiftly, yet deliberatively, on these matters in order to improve flagging investor confidence.

As we move forward, we should remember that derivatives contracts are highly varied. Importantly, certain derivatives take the form of customized contracts that non-financial businesses employ to manage risks. By most estimates, more than 90 percent of Fortune 500 companies use over-the-counter, as do thousands of smaller businesses. Clearly, some of these customized contracts cannot easily fit within a mandatory clearing or exchange trading regime. We therefore must find a delicate balance. Subjecting all contracts to mandatory exchange trading may cast too wide a net. Yet the clearing of most products, not all, through a central clearing entity seems appropriate and should not impose an undue burden on the affected parties.

However, carving out too many exemptions as we tackle regulatory reform could create widespread economic harm in the long term. At the same time, we cannot avoid the realization that products with unique features may require different treatment under whatever regulatory structure becomes adopted.

At this point, I believe that the standardization of contracts where possible will produce smoother clearing and clearing both opens a window through which regulators and market participants can keep a closer eye on the dark corner of the market and reduces the risks posed through the contracts collectively.

The debate about the extent to which clearing becomes required is of particular importance today. Even where clearing of contracts proves unfeasible, transparency can exist. By mandating the collection of relevant data in a repository, we can help to ensure that regulators maintain access to useful trading information and perhaps detect warning signs of systemically risky transactions.

Electronic trading also increases transparency. Further, electronic execution streamlines trading, minimizes mistakes, and enhances monitoring of the over-the-counter derivatives markets.

In sum, we have assembled a number of parties interested in, and affected by, the actions Congress will take in the months ahead. As we consider legislation to regulate in this field, their testimony can help guide us toward achieving the appropriate balance as we impose a sense of order in what until now has truly been the wild west of the financial services world.

I would like to recognize the ranking member, Mr. Garrett, for 4 minutes for his opening statement. Mr. Garrett?

Mr. GARRETT. Thank you, Mr. Chairman. Good morning to all the witnesses. Today's hearing is called, "The Effective Regulation of the Over-the-Counter Derivatives Market." I think it is important to keep in mind that it is not called, "The Most Politically Correct Sounding Regulation of Derivatives," nor is it called, "Let's Regulate the Heck Out of the Derivatives Market Because They Have Been Demonized and Let's Ignore All the Positive Contributions They Make to Our Capital Markets Under Proper Management."

Unfortunately, with some of the regulatory proposals that have come forward in this area, you might think that is the approach that is going to be taken.

Here are the facts: 94 percent of the 500 largest global companies use derivatives to manage risks. Congress therefore needs to tread carefully as it looks at regulatory options for these markets. Overly-regulated or improper regulations that might sound good politically could have major unintended negative consequences, not just for our financial markets but for our broader economy as well.

Rather than reducing risk, poor regulatory reform could actually exacerbate it, so before we go any further, it is important to remember that derivatives did not cause our financial difficulties. In fact, they should be seen more as symptoms of the underlying crisis, rather than a reason for it.

So while our overall financial service regulatory structure can be improved, it is important to preserve and protect the important benefits that they provide. Derivatives products provide firms with the ability to minimize risks. This obviously benefits individual firms but also benefits the broader market as well.

For example, as Members of Congress consider reform proposals, we must not be overwhelmed by the fact that one high profile financial institution, AIG, made a bad investment decision. We must also keep in mind that this occurred while AIG was under the supervision of its regulator, the Office of Thrift Supervision, and was part of broader regulations as well. So greater expertise then in some cases is clearly required at the functional regulator level for the derivative dealers, but AIG was, as you know, a regulated entity. And the AIG case is a reminder that regulatory failure contributed to our financial crisis as much as anything else did.

Furthermore, the vast majority of exposures in the CDS market, for instance, is contained within the already overly-regulated banking sector. Arguably, everything is in place already for regulators to appropriately regulate the bulk of this market and it is dominated by a small number of dealers. Regulators then already have

oversight responsibilities to ensure firms are taking appropriate risks and to set proper capital levels. So the power is there; regulators just need to do their job.

Now, when there have been credit events, and there have been a number of them, with the Lehman failure being the most significant, in each case, the event has been handled in a very orderly fashion by the existing infrastructure. Now, as I look at some of the particular regulatory ideas that have been put forward, I am persuaded that essential counterparties and a clearinghouse hold promise, but I am hesitant to say that as far as they go, that they should be mandatory for all standardized products.

The private sector has made significant progress in a relatively short period of time toward providing multiple clearinghouses for various derivative products, and I think we should look at this further. Inappropriate mandating of central clearinghouses will limit that ability to go further and manage risks.

Another area I would like to look at is the proposal of the so-called "naked" swaps. It is concerning to me. It is important that legislators understand that significant negative consequences will arise if such a proposal is actually enacted. So the participants and infrastructure provided in the OTC markets have accomplished much in recent years to provide stability from the ISDA master agreement, to the recent so-called "big bang protocol," to ongoing efforts to provide a more robust infrastructure for these products.

So, in conclusion, I look forward to continued progress being made in regards to greater coordination between the sell side and the buy side participants as private sector efforts progress to increase efficiency and transparency and reduce the risk in the OTC derivative business.

And, finally, as Congress pushes forward with further regulation in these markets, we need to guard against unnecessary, overly burdensome regulations that might cause the markets to move elsewhere, overseas, or would hinder or prohibit firms from providing themselves with superior risk management techniques that are so widely employed today and that could be enhanced by future innovation.

Thank you, Mr. Chairman.

Chairman KANJORSKI. Thank you, Ranking Member Garrett. We now have 3 minutes for the gentleman from New York, Mr. Ackerman.

Mr. ACKERMAN. Thank you, Mr. Chairman. Today's hearing is meant to focus on proposals for regulating over-the-counter derivative products, such as credit default swaps, but in this economy, with this market, and with our current fractured regulatory regime, we would be naive to consider proposals for regulating and clearing OTC products without also establishing a regulator to protect our markets against systemic risks.

During previous hearings held by both this subcommittee and the full Financial Services Committee, several of our witnesses and a number of our colleagues remarked that systemic risk is a lot like pornography in that while difficult to define, you know it when you see it. In my view of the two, systemic risk is actually the more difficult to identify. At least with pornography, you have a general

idea of what it is you are looking for. I do not know what that means; somebody wrote that for me.

[laughter]

Mr. ACKERMAN. If we could step into our time machines and go back in time before the near collapse of AIG, I have little doubt that we would have near unanimous support for regulating credit default swaps. But of course we cannot go back in time, we cannot stop AIG from overextending itself, and the next crisis will not stem from AIG's credit default swap portfolio.

Our financial regulatory structure is like a tattered quilt made up of dozen of patches, each representing a State and Federal supervisor, agency, some patches overlapping, and we now know some areas completely bare. Preventing the next crisis will require more than simply sewing yet another patch onto the quilt.

Regardless of how meritorious the proposals to regulate and clear out these derivatives may be, we need a regulator with the ability to see the complete picture, not just the OTC derivatives market, not just the exchanges, not just the banking system, but all of it. We need a regulator who has the ability to see trends in the OTC derivative markets that independently might not be worrisome but when paired with information pertaining to the reserves of our banks could be cause for concern. And we need the regulator to have the ability to act appropriately and expeditiously to address systemic risk. And so in my view merely granting the SEC or the CFDC the authority to regulate and to clear out these products is near-sighted and inadequate. If we are to learn from this financial crisis, any legislation that seeks to regulate OTC products must be paired with a systemic risk regulator.

I thank you and I yield back the balance of my time.

Chairman KANJORSKI. Thank you very much, Mr. Ackerman. We will now hear from the ranking member of the full committee, Mr. Spencer Bachus, for 3 minutes.

Mr. BACHUS. Thank you, Mr. Chairman. Mr. Chairman, I would like to associate myself with the remarks by the subcommittee Chair. Derivatives do help companies manage risk, and I think they are a very valuable thing. Of course, the derivative market is valued notionally at $684 trillion, which is a tremendous amount. And the rapid growth of this market, coupled with the potential for widespread credit defaults and operational problems in the over-the-counter market have led many to conclude that derivatives pose a substantial systemic risks. Therefore, the Treasury released a comprehensive framework for over-the-counter derivatives. In that, they call for financial derivatives suitable for clearing by a federally regulated central counterparty to be placed on registered exchanges.

I personally believe that most derivatives, if they are not too highly customized, should be placed in a clearinghouse situation. It helps you identify risk and define risk. And I think from talking to most financial institutions, they know what their risk is between two parties but they sometimes do not know what the party they are dealing with, what their risk with a third party is, and I think that is one of the values of a clearinghouse. You not only have to know what your exposure to each other is, but sometimes what the exposure they have to a third party.

The idea I think the Treasury has proposed is really an over-simplification of the use of an exchange and simultaneously may give unsophisticated retail investors a false comfort that their products are now safe for purchase because they have somehow been approved for exchange trading by a government agency.

Furthermore, in testimony before the committee in March, the GAO pointed out that some credit default swaps may be too complex or they would be highly tailored even for a clearing, and therefore placing them on an exchange to me would be almost impossible. And it is in those highly complex derivatives that we are going to particularly have a problem.

As we move forward with regulatory reform proposals, we should make every effort to strike the right balance between protecting investors and preserving innovation. I think that is where Mr. Garrett and I really agree, that there are already private sector initiatives well underway to clear a standardized derivative contract. A part of that is a response to what we have seen in the last year or two. Some of what we have seen I do not think will take place again because the parties are demanding that. And I think that these are efforts to remind us that market-based solutions are capable of generating the information that investors and companies need to make informed decisions. The last thing Congress should do is prevent new entrance into the derivatives clearing marketplace.

In closing, Mr. Chairman, any ban on over-the-counter derivatives would likely harm responsible and well-managed U.S. corporations that use derivatives to hedge against business risks. Restrictions on credit default swap contracts will also limit the ability of investors to appropriately calculate risks as it has become apparent that CDS spreads have become a more accurate reflection of credit risk than even credit ratings. And that is one thing that we have learned in all this is that credit rating agencies were way behind what we were seeing on some of the credit spreads themselves.

I appreciate our witnesses testifying. I have some of your testimony and I look forward to, over the next few days, reading the rest of it if I do not hear it. Thank you.

Chairman KANJORSKI. Thank you very much, Mr. Bachus. And now we will hear from the gentleman from Georgia, Mr. Scott, for 2 minutes.

Mr. SCOTT. Thank you very much, Mr. Chairman. I want to thank you and Ranking Member Garrett for holding this hearing. As over-the-counter derivatives have been cause for concern with AIG's near collapse, caused in large part by its portfolio of credit default swaps, the American taxpayer now owns most of this company as AIG has access now to nearly $200 billion in taxpayer support.

I also understand the frustrations with my constituents, and the constituents of every one of us on this committee and in Congress, that our constituents are feeling as their money continues to go towards propping up Wall Street firms, all the while they are simply trying to stay afloat with unemployment numbers rising and people continuing to lose their homes.

However, today, I am interested to hear what the witnesses have to say about the varying regulatory proposals to reign in these financial services products. I am looking forward to hearing their thoughts on proposals for mandatory clearing of all standardized over-the-counter contracts and reporting of trades from non-standardized contracts to a qualified trade information repository.

Furthermore, as a member of both the Financial Services Committee and the Agriculture Committee, I am interested to hear the opinions on legislation that would end the exemptions for swaps adopted in the Commodities Futures Modernization Act and assert new authority over the over-the-counter derivatives. And I would also like to hear their opinions and thoughts on the bill we passed in this committee in February, which would requiring clearing for all over-the-counter derivatives.

Our economy continues to be extremely turbulent as weakening trends envelops us and the experts predict that the downturn might not end any time soon, or at least not until the end of next year. So the bottom line with this hearing is we must seriously discuss strengthening regulations, specifically over these over-the-counter derivatives, but I would put in there strengthening them but with flexibility so that this system can work with greater transparency and effectiveness.

We must address concerns regarding current regulatory practices and how to further restructure them in a way that will provide for real reform.

And, Mr. Chairman, while I have this opportunity, I would also like to welcome from Atlanta, Georgia, Mr. Jeffrey Sprecher, who is from my area in Atlanta, Georgia, as well as Mr. Price's area. He is the chief executive officer of IntercontinentalExchange, which we refer to as ICE, from Atlanta, Georgia.

Thank you, Mr. Chairman. I look forward to the testimony from our distinguished witnesses.

Chairman KANJORSKI. Thank you, Mr. Scott. Now, we will hear from the second gentleman from Georgia, Mr. Price, for 1 minute.

Mr. PRICE. Thank you, Mr. Chairman, I appreciate it. In a free market, over-the-counter derivatives provide an essential function by allowing companies to customize the way that they address their risks. Many companies have successfully used OTC products to help their consumers save money and to create jobs, including 3M, which is testifying today, as an end user of derivatives.

A market-based economy allows institutions to succeed and to fail. And they fail for a number of reasons: The business takes on too much risk; it may be under bad management; or it may have an ineffective business model. Despite the fact that credit default swaps have come under fire lately because of AIG's remarkable over-exposure, when they are used appropriately, they can be a very effective risk management tool. Thus, we need to be extremely cautious and careful as we decide how to appropriately regulate derivatives.

In fact, the market has already begun addressing some of the concerns that credit default swaps and OTC derivatives posed. So I look forward to hearing from the witnesses about what they are doing to make OTC and CDS trades more transparent.

In the end, however, regulation must not be a one-size-fits-all system. Such a system stifles innovation, raises prices for consumers, punishes entrepreneurs, and destroys jobs.

Thank you, Mr. Chairman.

Chairman KANJORSKI. Thank you, Mr. Price. Now, the gentleman from New Jersey, Mr. Adler, for 3 minutes.

Mr. ADLER. Thank you, Chairman Kanjorski. I want to commend you and Ranking Member Garrett for holding this hearing today on this important but very, very complicated issue.

Most people can agree, including the majority of industry participants, that over-the-counter, OTC, derivatives need to be safer. However, Congress must be clear that the credit default swaps that damaged AIG's balance sheet made up just a fraction of all OTC derivatives. Thousands of American municipalities, companies, and financial institutions rely on OTC derivatives to manage risks. Interest rate and equity derivatives allow entities to hedge against unexpected losses. It is my hope that our committee strikes the right balance between creating a safer process of overseeing derivatives while maintaining the flexibility within the marketplace so private and public entities have the ability to manage their interests.

Standardized derivatives should be required to go through centralized clearing counterparties, but we should not create a process where all derivatives are processed through one CCP because it may actually increase the risk of bottle-necking the system.

I hope to hear from our panelists today on how we can best arrive at a definition of derivatives that allows for smarter and more effective regulation while not enforcing a blanket, one-size-fits-all set of regulations. A standardization of derivatives cannot include all financial contracts because many are individually negotiated and offer parties the opportunity to balance specific risks in a way many other traded products do not.

Clearly, Congress must prevent future activities from endangering our financial system, similar to what we witnessed with AIG, Bear Stearns, and Lehman Brothers last year. We have to implement safeguards to bring greater transparency not only to the public but also for our regulators. Marketplace participants have already started the process of moving towards greater transparency by creating and utilizing large electronic repositories.

Today's hearing will provide my colleagues and me with more information on the aggregate data that should be available to interested parties.

Finally, Mr. Chairman, today our committee should discuss the layered jurisdictional issues preventing the efficient and effective regulation of OTC derivatives.

Thank you again for the time. I yield back.

Chairman KANJORSKI. Thank you, Mr. Adler. And now we will hear from the gentleman from Oklahoma, Mr. Lucas, for 1 minute.

Mr. LUCAS. Thank you, Mr. Chairman, and Ranking Member Garrett, for holding today's hearing. Serving on this committee, as well as being the current ranking member on the House Agriculture Committee, I have had the opportunity to examine the various issues surrounding the role derivatives have played in the current financial crisis and have worked to respond to the need for

more effective regulation. While better transparency and disclosure are needed within the industry, we must make sure that we create responsible legislation that does not impede appropriate legislation and risk management within the marketplace.

Additionally, I believe we must work to ensure that the CFTC plays a leading role in appropriately regulating the derivatives and commodities market. The House Agriculture Committee recently reported a comprehensive bill aimed at addressing these regulatory concerns. I am prepared to use that experience to influence the discussion and the actions of this committee. I look forward to striking the proper balance as we craft the legislation that gives us that regulatory balance we need.

I yield back, Mr. Chairman.

Chairman KANJORSKI. Thank you very much, Mr. Lucas. Now, we will hear from the gentleman from Massachusetts, Mr. Lynch, for 1 minute.

Mr. LYNCH. Thank you, Mr. Chairman, and thank you for having this hearing. I appreciate the witnesses coming forward.

I get the sense I am in the minority, just from hearing the testimony on this side of the table. I do think that derivatives had a lot to do with the impact and the scope of the economic downturn that we are currently experiencing. And while I think our job should be regulating this industry, I just want to point out that if we are trying to set up a regulatory framework to contain some of the damage that has been caused, and nobody has mentioned that in their testimony, I think we need to give the tools to our regulators to do just that.

And by allowing part or a significant part of the derivatives market to just go off unregulated, we have seen from our experience that is where the money goes. It goes to the unregulated portions of the market, the opaque areas of the market.

We are setting ourselves up to fail. We are not going to regulate this, I get the sense of it right now, but we will be back here someday. It is just very unfortunate that we are not taking advantage of the, I think, desire in the financial world to really get at this. I think we are making a mistake on the part of the taxpayers and investors. I think we are making a terrible mistake here, Mr. Chairman, in taking a very soft approach.

I get the sense of who is winning this fight, and I do not think it is the American taxpayer.

I yield back.

Chairman KANJORSKI. Thank you very much, Mr. Lynch. And now we will hear from the gentleman from California, Mr. Royce, for 1 minute.

Mr. ROYCE. Thank you, Mr. Chairman. Certainly there appears to be a market consensus forming that highly standardized contracts can and should be sent through a central counterparty. However, I think it is worth noting that a portion of the derivatives market is highly customized and tailored to a specific institution, covering a specific risk.

Over time, with calls for greater transparency, market participants will be best equipped to determine which instruments should be cleared and which should be traded on an exchange. If Congress missteps, we run the risk of driving this market overseas and lim-

iting the ability of companies to manage risks associated with their business practices.

In the case of AIG, it appears the failure came from a break down in counterparty due diligence, not simply the firm's usage of derivatives. Market participants so reliant upon AIG's triple A credit rating failed to see the extent to which AIG was overleveraged and their vast exposure to an eroding U.S. housing market. Deciphering this leverage in an opaque market is key. Information warehousing of the non-cleared customized trades for transparency would logically help in those cases that could not be handled by a central clearinghouse.

Thank you again, Mr. Chairman.

Chairman KANJORSKI. Thank you very much, Mr. Royce. And now we will hear from the gentlemen from California, Mr. Sherman, for 2 minutes.

Mr. SHERMAN. Thank you. One of the arguments always made against regulation is, "Let the buyer beware." The credit agencies were here saying, "Don't regulate us, just don't rely on our rating." Now, we are told well, the counterparties should protect themselves. The fact is at best, these derivatives are insurance. At worst, they are a bet at the casino. Either way, we do not let you sell fire insurance on my house without setting up reserves. And that insurance policy on my house is basically for the benefit of my bank, you do not want to know how little equity I have in the house.

Yet, you can go to a bank and say we will protect you not from Brad's house burning down, but from the house declining in value, and Sherman defaulting on the loan, and it is not insurance, it is customized. Or you can sell that as a casino bet and go to somebody who does not hold my mortgage and sell them an insurance policy against me not paying my mortgage. Either way, there ought to be reserves. Anything else means you can sell an unlimited quantity and ultimately we are told, "Well, this is just a private market decision." Tell that to the taxpayers who have bailed out AIG.

And if this business goes overseas, there will always be an unregulated casino where you go and you put your money down on number 24 and you win and the bank does not pay off. Fine, let that casino be offshore. Let some other government have to bail out the next AIG. Let us not be told that the present system is fine so long as the taxpayers write the check.

I yield back.

Chairman KANJORSKI. Thank you very much, Mr. Sherman. And now we will hear from the gentlelady from Illinois, Mrs. Biggert, for 1 minute.

Mrs. BIGGERT. Thank you, Mr. Chairman. To justify a curfew, some parents stated to their teenagers, "Nothing good ever happens after midnight." I would argue that a similar adage holds true when it comes to elements of the derivative market. This is especially true of those riskier trades of credit default swaps and over-the-counter derivatives that were conducted in a kind of darkness and contributed to the collapse of major financial services companies and contributed to our current financial crisis.

I look forward to hearing suggestions regarding the increased capital rate requirements, centralized clearing and price discovery as part of the discussions of how to better manage risks within the market place. This could only lead to more robust competition, restored investor confidence, and healthier markets.

At the same time, I think Congress must aim first to do no harm. While legislating, we must be careful not to sacrifice market efficiency and liquidity in the name of more transparent markets or to simply meet a goal of reducing omissions. The Waxman-Markey bill gives financial regulatory authority to the wrong regulator, over-restricts trading, and imposes a new futures transaction tax. A new tax adds to the cost of future transactions, which threaten the vitality of U.S. futures markets, especially those in Chicago and all who depend on them.

We must strike the right balance. And with that, I look forward to hearing from our witnesses, especially my constituent, Mr. Duffy, who is the executive chairman of the CME Group.

I yield back.

Chairman KANJORSKI. Thank you, Mrs. Biggert. The gentleman from Texas, Mr. Hensarling, for 1 minute.

Mr. HENSARLING. Thank you, Mr. Chairman. I appreciate the title of the hearing, dealing with "effective regulation" because I think there is a very big difference between effective and ineffective.

Effective regulation helps make markets more competitive and transparent, empowers consumers with effective disclosure to make rational decisions, effectively polices markets for fraud, and reduces systemic risk. Ineffective regulation though can hamper competition, create moral hazards, stifle innovation, and diminish the role of personal responsibility within our economy.

Now, with respect to more regulation of the OTC derivatives market, I come into this hearing with an open mind but not an empty mind. I remember that regulators and legislators do not always get it right, witness Fannie Mae and Freddie Mac; witness the credit rating agency oligopoly, and let us also remember that the former director of OTS said they had the tools to prevent AIG's position in the CDS and simply did not exercise it.

Now, perhaps we should look to more enlightened risk assessment for tools for regulators, appropriate capital standards and with respect to our OTC derivatives and current economic turmoil, let's be careful we do not confuse the cause with the symptoms.

With that, Mr. Chairman, I yield back the balance of my time.

Chairman KANJORSKI. Thank you very much, Mr. Hensarling. And now we will hear from the gentlelady from Minnesota, Mrs. Bachmann, for 1 minute.

Mrs. BACHMANN. Thank you, Mr. Chairman and Mr. Garrett, for holding this important meeting today. I am also pleased that the committee has invited Mr. Timothy Murphy to speak before us today. He is the foreign currency risk manager for 3M Corporation to testify about 3M's use of these financial products. Headquartered in St. Paul, Minnesota, it is a hometown company we have been proud of for years. They provide 34,000 people with jobs, and more than 60 percent of the manufacturing operations are located here inside the United States.

With over 20 years experience in the over-the-counter derivative market, Tim presently manages 3M's currency and commodity risk programs, as well as the share re-purchase program. He is personally responsible for the management and execution of the company's foreign exchange hedging policy, including identifying the appropriate exposure estimates to be used as the basis of foreign exchange hedging activity and balance sheet hedging.

Prior to joining 3M, he worked at U.S. Bank for more than 10 years managing their foreign currency and trading relation with corporate mutual fund and banking clients.

As our committee considers the future of over-the-counter derivatives, we must remember that many United States companies responsibly utilize these financial products to manage their risks and limit damage to their balance sheets. We need to ask the question of those before us today: How will jobs be impacted by the measures that are before us today? These are America's job creators. Congress should be careful not to overreach and infringe on their ability to hedge risks responsibly.

I look forward to today's important discussion. I yield back, Mr. Chairman.

Chairman KANJORSKI. Thank you very much, Mrs. Bachmann. And now we will hear from the gentleman from Texas, Mr. Neugebauer, for 1 minute.

Mr. NEUGEBAUER. Thank you, Mr. Chairman. One of the things that we have sat here for several months talking about is the state of the economy, and I think if we went around this room today and asked everybody what they thought caused where we are, we would get many different answers, which is one of the reasons I have been very concerned about the road that we are going down. I do not know that we have adequately analyzed where in the system that we had the breakdowns. Instead, I think we have embarked on a road to throw a restrictive regulatory blanket over the entire financial markets. And what I think we may end up doing is in many cases, some of the people that we are "trying to protect or to help," there may be unintended consequences for this very restrictive regulatory blanket that we are trying to throw over the financial markets.

Derivatives and swaps are important tools, not only for discovering risk in many cases, but also for managing risk. We need to make sure that we do not destroy those tools simply because some do not understand it or some believe that possibly they could have been a cause of the financial breakdown. We do not know that is in fact the case. What we do know is many firms were able to manage their risk through this process by having some of these products actually in place.

And so I look forward to the testimony that we are going to hear today, but I also caution my fellow committee members that let's go down this road with thoughtful debate and discussion and make sure that we get it right because this is a very important issue to our country.

With that, I yield back.

Chairman KANJORSKI. Thank you, Mr. Neugebauer. And now we have for 1 minute, the gentlelady from Kansas, Ms. Jenkins.

Ms. JENKINS. Thank you, Mr. Chairman. This committee is being asked to consider massive regulatory reform in the financial markets. I hope that any legislation we consider will strike a balance between protecting the financial system and ensuring open and free markets.

I have concerns with proposals like the one that is the focus of today's hearing. I am eager to learn more during this hearing about all of these issues, and I am concerned about new entry participation barriers in the over-the-counter markets being discussed, such as capital requirements and the effects that they may have on competition.

If this body is to create new regulations in the OTC markets to decrease the possibility of systemic risk and increase transparency, Congress must ensure robust competition and protect the ability of American businesses to use these markets to manage their energy, currency and other risks.

As we take steps to emerge from the current recession and get our economy back on track, I, too, urge my colleagues to proceed with caution.

I yield back. Thank you.

Chairman KANJORSKI. Thank you very much, Ms. Jenkins. Now, we will have the first panel. I want to thank you for appearing before the subcommittee today, and without objection, your written statements will be made a part of the record. You will each be recognized for a 5-minute summary of your testimony.

First, we have Mr. Donald Fewer, chief executive officer of Standard Credit Group. Mr. Fewer?

STATEMENT OF DONALD P. FEWER, CHIEF EXECUTIVE OFFICER, STANDARD CREDIT GROUP

Mr. FEWER. Chairman Kanjorski, Ranking Member Garrett, and members of the subcommittee, my name is Donald Fewer. I would like to thank the subcommittee for the opportunity to share my views on the regulation of the over-the-counter derivatives market and address the areas of interest outlined by the subcommittee. I have also submitted a larger statement for the record.

Analysis of the credit crisis points to the need for enhanced regulation of the OTC market. Results from such analysis point to multiple, and sometimes conflicting, causes of the crisis and the role played by the OTC derivatives market. We suggest creating a cohesive regulatory regime with a systemic risk regulator that has the authority and accountability to regulate financial institutions that are determined to be systemically important.

Regulation need not reshape the market or alter its underlying functionality. The U.S. share of global financial markets is rapidly falling and oversight consolidation should not create a regulatory environment that prohibits capital market formation, increases transaction costs, and pushes market innovation and development to foreign markets.

The use of CCPs by all market participants, including end users, should be encouraged by providing open and fair access to key infrastructure components, including central clearing facilities, private broker trading venues, and derivative contract repositories. Central clearing will reduce systemic risk by providing multilateral

netting and actively managing daily collateral requirements. Mandated clearing of the most standardized and liquid product segments is congruent with efficient global trade flow.

Given the size, history and global scope of the OTC derivatives market, migration toward exchange execution has been, and will be, minimal apart from mandatory legislative action. OTC derivative markets will use well-recognized protocols of size, price, payment and maturity dates. Because of these internationally-recognized protocols, OTC dealers globally are able to efficiently customize and best execute at least cost trillions of dollars of customer orders within generally acceptable terms to the market. There is a class of OTC product that is extremely conducive to exchange execution and can warrant exchange listing.

The over-the-counter market has a well-established system of price discovery and pre-trade market transparency that includes markets such as U.S. Treasuries, U.S. repo, and EM sovereign debt. OTC markets have been enhanced by higher utilization of electronic platform execution. The unique nature of the OTC markets' price discovery process is essential to the development of orderly trade flow and liquidity, particularly in fixed income credit markets. We are in a period of abundance of mispriced securities where professional market information and execution is required.

OTC derivatives and underlying cash markets use an exhaustive price discovery service that can only be realized in the OTC market via execution platforms that integrate cash and derivative markets.

Post-trade transparency for all OTC derivative transactions can be properly serviced by CCPs and central trade repositories that aggregate trading volumes and positions, as well as specific counterparty information. These institutions can be structured to maintain books and records and provide access to regulatory authorities on trade-specific data.

I would not endorse OTC trade reporting to the level that is currently disclosed by trace. There is ample evidence in the secondary OTC corporate bond market that the trace system has caused dealers to be less inclined to hold inventory and to make capital to support secondary markets.

Successful utilization of electronic trade execution platforms is evident in markets such as U.S. Government bonds and U.S. Government repo. I would caution against the mandated electronic execution of OTC cash-in derivative products by regulatory action. Effective implementation of such platforms should be the result of a clear demand made by market makers and a willingness by dealers to provide liquidity electronically. Our experience in North America is that the dealer community has refrained from electronic execution due to the risk of being held to prices during volatile market conditions.

I would strongly endorse the hybrid use of electronic platforms where market participants utilize the services of voice brokers in conjunction with screen trading technology.

Mr. Chairman, Mr. Ranking Member, and members of the subcommittee, I appreciate the opportunity to provide this testimony. I am available to answer any questions you may have.

[The prepared statement of Mr. Fewer can be found on page 156 of the appendix.]

Chairman KANJORSKI. Thank you, Mr. Fewer.

Next, we will have Mr. Robert Pickel, chief executive officer, International Swaps and Derivatives Association, Incorporated. Mr. Pickel?

STATEMENT OF ROBERT PICKEL, CHIEF EXECUTIVE OFFICER, INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, INC. (ISDA)

Mr. PICKEL. Thank you, Mr. Chairman, Ranking Member Garrett, and members of the subcommittee. Thank you very much for inviting ISDA to testify today. We are grateful for the opportunity to discuss public policy issues regarding the privately negotiated or OTC derivatives business. Our business provides essential risk management and risk reduction tools for many users. Additionally, it is an important source of employment, value creation, and innovation for our financial system. It is one that employs tens of thousands of individuals in the United States and benefits thousands of American companies across a broad range of industries.

In my remarks today, I would briefly like to underscore ISDA's and the industry's strong commitment to identifying and reducing risk in the privately negotiated derivatives business. We believe that OTC derivatives offer significant value to customers who use them, to the dealers who provide them, and to the financial system in general by enabling the transfer of risk between counterparties. OTC derivatives exist to serve the risk management and investment needs of end users. These end users form the backbone of our economy. They include over 90 percent of the Fortune 500 companies, 50 percent of mid-size companies, and thousands of other smaller American companies.

We recognize, however, that the industry today faces significant challenges, and we are urgently moving forward with new solutions. We have delivered and are delivering on a series of reforms in order to promote greater standardization and resilience in the derivatives markets. These developments have been closely overseen and encouraged by regulators who recognize that optimal solutions to market issues are effectively achieved through the participation of market participants.

As ISDA and the industry work to reduce risk, we believe that it is essential to preserve flexibility, to tailor solutions to meet the needs of customers. Efforts to mandate that privately negotiated derivatives trade only on an exchange would effectively stop any such business from being conducted. Requiring exchange trading of all derivatives would harm the ability of American companies to manage their individual, unique financial risks and ultimately harm the economy.

Mr. Chairman, let me assure you that ISDA and our members clearly understand the need to act quickly and decisively to implement the important measures that I will describe in the next few minutes.

Last month, Treasury Secretary Geithner announced a comprehensive regulatory reform proposal for the OTC derivatives market. The proposal is an important step toward much needed reform of financial industry regulations. ISDA and the industry welcomed in particular the recognition of industry measures to safe-

guard smooth functioning of our markets and the emphasis on the continuing need for the ability to customize derivatives for the specific needs of users of derivatives.

The Treasury plan proposes to require that all derivatives dealers and other systemically important firms be subject to prudential supervision and regulation. ISDA supports the appropriate regulation of financial and other institutions that have such a large presence in the financial system that their failure could cause systemic concerns.

Most of the other issues raised in the Treasury proposal and the questions you have asked of the panelists today were addressed in a letter that ISDA and industry participants delivered to the Federal Reserve Bank of New York earlier this month. As you may know, a Fed-industry dialogue was initiated under Secretary Geithner's stewardship of the New York Fed nearly 4 years ago. This dialogue has led to substantial and ongoing improvements in the key areas of the OTC derivatives infrastructure, increased standardization of trading terms, improvements in the trade settlement process, greater clarity in the settlement of defaults, significant positive momentum toward central counterparty clearing, enhanced transparency, and a more open industry governance structure.

In our letter to the New York Fed this month, ISDA and the industry expressed our firm commitment to strengthen the resilience and robustness of the OTC derivatives market. As we stated, we are determined to implement changes to risk management, processing, and transparency that will significantly transform the risk profile of these important financial markets. We outlined a number of steps towards that end, specifically in the areas of information transparency and central counterparty clearing.

ISDA and the OTC derivatives industry are committed to engaging with supervisors globally to expand upon the substantial improvements that have been made in our business since 2005. We know that further action is required, and we pledge our support in these efforts. It is our belief that much additional progress can be made within a relatively short period of time. Our clearing and transparency initiatives, for example, are well underway with specific commitments aired publicly and provided to policymakers.

As we move forward, we believe the effectiveness of future policy efforts will be driven by how well they answer a few fundamental questions. First, do they recognize that OTC derivatives play an important role in the U.S. economy? Second, do the policy efforts enable firms of all types to improve how they manage risk? Third, are the policy efforts based on a complete understanding of how the OTC derivatives markets function and their true role in the financial crisis? And, fourth, do the policy efforts ensure the availability and affordability of these essential risk management tools?

Mr. Chairman and committee members, the OTC derivatives industry is an important part of the financial services business in this country and the services we provide help companies of all shapes and sizes. Let me assure you that we in the derivatives industry do recognize the challenges that we face as we seek to enact a comprehensive and prudent system of regulatory reform.

As I have indicated, we are fully committed to working with legislators, this committee, and supervisors to address the key issues ahead.

Thank you for your time, and I look forward to your questions.

[The prepared statement of Mr. Pickel can be found on page 176 of the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Pickel.

And now we will hear from Mr. Timothy J. Murphy, foreign currency risk manager, 3M. Mr. Murphy?

STATEMENT OF TIMOTHY J. MURPHY, FOREIGN CURRENCY RISK MANAGER, 3M

Mr. MURPHY. Chairman Kanjorski, Ranking Member Garrett, and members of the subcommittee, thank you for inviting 3M to speak today on the importance of the over-the-counter derivatives market. Representative Bachmann, thank you for your kind introduction, as well as your kind words about 3M Company.

As you know, my name is Timothy Murphy, and I am the foreign currency risk manager for 3M Company. As you now know, 3M is a U.S.-based employer headquartered in Minnesota. We are home to such well-known brands as Scotch, Post-It, Nexcare, Filtrete, Command, and Thinsulate. 3M has over 34,000 employees in the United States and operations in 27 States where over 60 percent of 3M's worldwide R&D and where 60 percent of our manufacturing occurs.

While our U.S. presence is strong, being able to compete successfully in the global marketplace is critical. In 2008, 64 percent of our sales or over $16 billion were outside the United States. And this number is expected to grow to over 70 percent by 2010.

It is because of the global success of our brands that we need to manage foreign currency risks via the OTC markets. Likewise, our desire to officially manage our raw material and financing costs gives rise to our use of OTC commodity and interest rate tools.

I want to stress that 3M, like the majority of corporate end users, does not speculate with derivatives. All of our hedge transactions are carefully matched with underlying risks from the operation of our businesses.

I am here today to share 3M's perspective on proposals to establish a regulatory framework for OTC derivatives. While 3M supports the objectives outlined in Treasury Secretary Geithner's recent proposal, as well as many of the ideas put forward by Members in the House and the Senate, we have strong concerns about the potential impact on OTC derivatives and 3M's ability to continue to use them to protect our operations from the risk of currency, commodity, and interest rate volatility.

3M agrees that the recent economic crisis has exposed some areas in our financial regulatory system that should be addressed. However, not all OTC derivatives have put the financial system at risk, and they should not all be treated the same. The OTC foreign exchange commodity and interest rate markets have operated largely uninterrupted throughout the economy's financial difficulties. We urge policymakers to focus on the areas of highest concern.

3M understands and respects the need for reporting and recordkeeping. Publicly-held companies are currently required by the

SEC and FASB to make significant disclosures about our use of derivative instruments and hedging activities, including disclosures in our 10-Ks and 10-Qs. We would like to work with policymakers on ways to efficiently collect information into a trade repository to further enhance transparency.

3M opposes a mandate to move all derivatives into a clearing or exchange environment. One key characteristic of OTC derivatives for commercial users is the ability to customize the instrument to meet a company's specific risk management needs. Provisions that would require the clearing of OTC derivatives would lead to standardization, thus impeding a company's ability to comply with hedge accounting requirements for financial reporting, thereby exposing reported corporate financial results to unwarranted volatility and distracting from our operating results.

While we are mindful of the reduction in credit risk inherent in a clearing or exchange environment, robust initial and variation margin requirements would create substantial incremental liquidity and administrative burden for commercial users, resulting in higher financing and operational cost.

Scarce capital currently deployed in growth opportunities would need to be maintained as margin, which could result in slower job creation, lower capital expenditures, less R&D, and/or higher cost to consumers. The hedging of business risks could well be discouraged.

3M thanks the committee for studying the critical details related to financial system reforms and for considering our perspective in this important debate.

Again, 3M respectfully urges the committee to preserve commercial users' ability to continue using OTC derivative products to manage various aspects of corporate risk while addressing concerns about stability of the financial system.

3M looks forward to working with the committee as you craft this important legislation.

Thank you.

[The prepared statement of Mr. Murphy can be found on page 171 of the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Murphy.

And next we will hear from Mr. Don Thompson, managing director and associate general counsel of JPMorgan Chase & Co. Mr. Thompson?

STATEMENT OF DON THOMPSON, MANAGING DIRECTOR AND ASSOCIATE GENERAL COUNSEL, JPMORGAN CHASE & CO.

Mr. DON THOMPSON. Mr. Chairman, Ranking Member Garrett, and members of the committee, my name is Don Thompson, and I am a managing director and associate general counsel at JPMorgan Chase & Co. Thank you for inviting me to testify at today's hearing.

For the past 30 years, American companies have used OTC derivatives to manage interest rate currency and commodity risk. Increasingly, many companies incur risks outside their core operations that if left unmanaged would negatively affect their financial performance and possibly even their viability.

In response to marketplace demand, risk management products, such as futures contracts and OTC derivatives, were developed to enable companies to manage risks. OTC derivatives have become a vital part of our economy. According to the most recent data, over 90 percent of the largest American companies and over 50 percent of mid-size companies use OTC products to hedge risk.

JPMorgan's role in the OTC derivatives market is to act as a financial intermediary. In much the same way that financial institutions act as a go-between with investors seeking return and borrowers seeking capital, we work with companies looking to manage their risks and entities looking to take on those risks.

A number of mainstream American companies have expressed great concern about the unintended consequences of recent policy proposals, particularly at a time when our economy remains fragile. In our view, the effect of forcing such companies to face an exchange or a clearinghouse will limit their ability to manage the risk they incur in operating their businesses and have negative financial consequences for them because of increased collateral posting. These unintended consequences have the potential to harm economic recovery.

Let me first touch on some of the benefits of OTC derivatives. Companies today demand customized solutions for risk management and the OTC market provides them. Keep in mind that customization does not necessarily mean complexity. Rather, it means the ability to hand tailor every aspect of a risk management product to the company's needs to ensure that the company is able to offset its risks exactly.

For example, a typical OTC derivative transaction might involve a company that is borrowing at a floating interest rate. To protect itself against the risk that interest rates will rise, the company would enter into an interest rate swap. These transactions generally enable the company to pay an amount tied to a fixed interest rate and the dealer counterparty will pay an amount tied to the floating rate of the loan. This protects the company against rising interest rates and allows them to focus on their core operations. In addition, the company is often able to qualify for hedge accounting and thus avoid seeing volatility in its financial reporting that would obscure the true value of its business.

OTC derivatives are used in a similar manner by a wide variety of companies seeking to manage volatile commodity prices, foreign exchange rates, and other market exposures.

In addition to customization, the other main benefit of OTC derivatives is flexibility with respect to the collateral that supports a derivative transaction. In the interest rate swap example I went through before, the dealer counterparty may ask the company to provide credit support to mitigate the credit risk that it faces in entering into the transaction. Most often, that credit support comes in the same form as the collateral provided for in the extensions of credits by that dealer counterparty to the customer. Thus, if the loan is agreement is secured by property, equipment or accounts receivable, that same high-quality collateral would be used to secure the interest rate swap. As a result, the company does not have to incur additional costs in obtaining and administering collateral for the interest rate swap.

It is important to note that although derivatives are currently offered on U.S. exchanges, few companies use these exchange traded contracts for two main reasons: First, exchange-traded products are by necessity highly standardized and not customized. As a result, companies are unable to match the products that are offered on exchanges to their unique portfolio of risks.

Second, clearinghouse collateral requirements are by design onerous and inflexible. Clearinghouses require that participants pledge only highly liquid collateral, such as cash or short-term government securities to support their positions. However, companies need their most liquid assets for their working capital and investment purposes. Thus, in the example I gave, if the company had actually hit its hedge on an exchange, it would have had to post cash or readily marketable collateral up front and twice daily thereafter.

By transacting in the OTC market, the company is able to use the same collateral that it has already pledged to secure its loan with no additional liquidity demands or administrative burdens. This collateral is high quality, given that it is the basis for the extension of credit in the loan but posting it does not affect the company's operations or liquidity.

The flexibility to use various forms of credit support significantly benefits companies because without it, many companies will choose not to hedge risks because they cannot afford to do so.

While we believe that exchanges play a valuable role in risk management, not all companies can or want to trade on exchange. Currently, companies have the choice of entering into hedging transactions on exchange or in the OTC markets, and we believe that companies should be allowed to have the choice to continue to use those competing products.

The discussion of the benefits of OTC derivatives is not to deny that there have been problems with their use and it is essential that policymakers carefully examine the causes of the financial crisis to ensure that it does not repeat it.

We have noted recent press reports indicating that banks are engaged in the concerted effort to avoid regulation. This is absolutely not true. For the past 4 years, major derivatives dealers, working in conjunction with regulators, have been engaged in an extensive effort to improve practices and controls in the OTC derivatives market. The letter referred to is just the latest quarterly submission outlining our efforts to enhance market practices, and we are committed to reforming the regulatory system and increasing confidence in the markets.

To that end, we propose the following, which is consistent with the Administration's position, and CFDC Chairman Gensler's recent remarks on the issue: First, financial regulation should be considered on the basis of function, not form; second, a systemic risk regulator should oversee all systemically significant financial institutions and their activities; third, standardized OTC derivative transactions between major market participants should be cleared through regulated clearinghouses; and, finally, enhanced reporting requirements should apply to all OTC derivatives transactions, whether cleared or not.

JPMorgan is committed to working with Congress, regulators, and other industry participants to ensure that an appropriate regulatory framework for OTC derivatives is implemented.

I appreciate the opportunity to testify and look forward to taking your questions.

[The prepared statement of Mr. Don Thompson can be found on page 189 of the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Thompson.

And next, we will have Mr. Christopher Ferreri, managing director of ICAP. Mr. Ferreri?

STATEMENT OF CHRISTOPHER FERRERI, MANAGING DIRECTOR, ICAP

Mr. FERRERI. Thank you, Chairman Kanjorski, Ranking Member Garrett, and members of the subcommittee for allowing me the opportunity to participate in today's hearing. I am Chris Ferreri, and I work for a company called ICAP. We are the world's largest interdealer broker, employing more than 4,000 personnel worldwide, including New York, New Jersey, and the other major financial centers. Using a combination of voice and electronic services, our function is to match buyers and sellers, specifically banks and other large financial institutions, operating in the wholesale financial markets.

On their behalf, we execute thousands of trades daily and a broad array of financial products, including U.S. Treasury securities, foreign exchange, commodities, and other financial derivatives.

Products and trades in the OTC markets are simply products that do not trade exclusively on registered exchanges. It should be noted that included in these products are U.S. Treasury securities and foreign exchange, by volume of trade, the world's two largest financial products.

It should also be emphasized that for the most part institutional participants in these markets are currently subject to regulation by government authorities, specifically in the United States, the Fed, the SEC, and FINRA.

During my testimony, I would like to emphasize the following three points: First, ICAP supports greater oversight of major participants in OTC markets, in particular to ensure the integrity of their capital base. We also support additional transparency through the increased use of electronic trading platforms and post-trade reporting facilities already available through companies like ICAP and others.

Second, some have suggested that the solution to greater oversight with regard to the over-the-counter market should be to force much of the present activity on to existing exchanges. We do not believe this is necessary or indeed that it would accomplish its intended goal. Rather, we believe that better use of facilities that already exist, such as the electronic trading platforms, direct and immediate access to clearinghouses, and post-trade reporting and processing will lead to greater price transparency, more efficient markets, and additionally facilitate the oversight function of the regulatory authorities.

Third, these products have increased in number and size so dramatically because virtually every major financial and corporate in-

stitution in the world needs and uses them to raise capital, to protect portfolio positions, and to mitigate risk. Whatever regulatory decisions are made, we must make every effort that they do not impair access to capital or the ability to hedge risk for private and public institutions alike.

The subcommittee did give us seven points to touch on. I will address as many as I can in the time allotted.

On the view for OTC regulation: ICAP favors changes to the regulatory framework supporting fairness and transparency. Interdealer brokers like ICAP are regulated by both the national regulators in each relevant market and by their overall lead regulator. There are many forms of regulation already in place that apply to the OTC cash and derivatives markets, in cases where the markets themselves may not be regulated but participants can be.

How clearing will affect the OTC markets: Roughly 60 percent of the OTC markets we operate are cleared. We would expect that increased clearing can lead to increased liquidity in the OTC markets.

The pros and cons of exchange trading: We must first underscore the distinctions between exchange trading and clearing. ICAP operates fully electronic marketplaces for many products and none of them are single silos of exchange trading and clearing but are traded electronically and cleared centrally. This one-size-fits-all approach is completely standardized, non-fungible contracts means that corporations, mortgage providers, bond issuers and others are unable to accurately hedge their risk exposures. It is for this reason that the OTC markets are both larger in scale and broader in scope than the exchange markets.

The potential benefits of electronic trading: Electronic trading could provide more efficient price discovery; simplify trade capture; materially reduce operational risk; improve trading supervision; increase audit ability; and create processing capacity in the OTC markets. In addition, multiple trading venues increase competition, keep costs down, and provide security from failure of individual platforms. Migrating liquidity is difficult. The turnkey development of a completely new market infrastructure is unnecessary and will require significant implementation time and incur a high level of risk. Rather than rushing to develop new infrastructure, better and more extensive use should be made of the tremendous capabilities of the existing OTC market infrastructure.

In summary, it should be clear that the over-the-counter market is not unregulated or even less regulated. Our electronic trading platforms are global, connect to thousands of customers in dozens of countries, as well as the world's largest clearance and settlement systems.

ICAP welcomes the coming reform, and we feel our goals of promoting competition, electronic trading, and clearing helps both our customers and ICAP.

The OTC market has already invested significantly in developing this infrastructure for price discovery, trade execution and post-trade automated processing which contributes hugely to reducing risks, but it needs to be further developed and better leveraged for the benefit of all.

Once again, I think the committee for allowing me to speak on this topic, and I look forward to working with the committee on building a bridge for a better marketplace.

Thank you.

[The prepared statement of Mr. Ferreri can be found on page 147 of the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Ferreri.

And, finally, we have Mr. Christian Johnson, professor, University of Utah School of Law. Mr. Johnson?

STATEMENT OF CHRISTIAN A. JOHNSON, PROFESSOR, UNIVERSITY OF UTAH SCHOOL OF LAW

Mr. JOHNSON. Thank you, Mr. Chairman, Ranking Member Garrett, and subcommittee members. As an academic, I thought I might take a moment to step back and try and provide some historical context as to why the over-the-counter derivative markets look like they do.

The first OTC derivative that was publicly announced I believe was a cross-currency swap between IBM and the World Bank back in 1981. And there was probably activity before that but at the time there was tremendous legal uncertainty as to whether it was even legal to do over-the-counter derivatives. The biggest concern at the time was whether or not these over-the-counter derivatives were what we call illegal off-exchange future transactions and thus subject to CFTC regulation and could conceivably be held to be void by the courts.

And what began then for a period of about 7 or 8 years, was a tremendous perhaps we call it turf war going on between the CFTC's thoughts on asserting jurisdiction over this growing market and the large dealers pushing back, oftentimes with the help of regulators, to keep this as an unregulated and customized market.

In 1989, the CFTC officially agreed to not exercise jurisdiction over the over-the-counter derivative market provided that the transactions were not standardized and provided that they were not cleared or did not enjoy exchange offset. And so essentially what happened is because of this legal uncertainty, the goal of the OTC market was to look as little as possible like exchange traded derivative transactions.

In 1993, Congress gave the CFTC authority again to not regulate over-the-counter derivative transactions, provided that the transactions were not standardized. And so in the initial history of the over-the-counter derivative market, you have tremendous pressure to drive the over-the-counter activity away from what we appear to be trying to do today, to try to get them back to being more standardized and put back on to exchanges and traded in a way that might minimize the risks that we all have been talking about.

So the problem we have now is we have a global industry that was initially driven by the efforts not to look like standardized transactions that could be cleared and traded over exchanges. And so you have a global market that has designed products, created infrastructure and to do all the things that we do not want them to do right now. And now we are trying to force them back into the model where they are standardized, where they are cleared and enjoy some of those different benefits.

The reason I bring this up is, one, again, because a lot of this situation we are in was caused because of I guess what you would call regulatory competition over who is going to take control over this particular market, and the problem we have is we have a very mature and developed market that does not operate in the way that we want it to at this particular moment. And it will probably take time and nudges from regulators and from Congress to start doing the kinds of things that we have been talking about today.

When you look at Secretary Geithner's May 13th letter where he talked about what we should be doing to regulate over-the-counter derivatives, his last paragraph is almost a throw away paragraph, and one of his last lines in the letter is, "We would like to promote the implementation of complementary measures in other jurisdictions." And essentially what he is saying is that if we try and regulate here without getting similar regulation in Europe and Asia, that we run the risk that we are going to drive this market offshore. I am not trying to trivialize this point, but if you look at the OTC market, it is a bit like a big round children's squishy ball. And when you grab it and you try and conform it, it pops out in funny directions.

And, again, I am not trying to trivialize what we are talking about, but this is a truly global industry that will move quickly and easily from jurisdiction to jurisdiction, wherever it is easiest to trade and where we have the least regulation. The concern of course is that we do not do this, and that we are able to preserve the dominance that our institutions have developed and maintain some control here in the United States.

Thank you very much for your time.

[The prepared statement of Professor Johnson can be found on page 161 of the appendix.]

Chairman KANJORSKI. Thank you very much, Professor. Now, we will see if we have any questions from our colleagues, and I will start off. First, let me ask a very obvious question, is there anyone of the six of you on the panel who feels that there is no corrective action that is necessary to be taken by the Congress in regards to derivatives?

[no response]

Chairman KANJORSKI. So I guess we have uniform agreement that there are at least some or many fixes that should be made in the field of derivatives to improve the situation as they presently exist. Is that correct?

Mr. PICKEL. Yes, Mr. Chairman, I think that is correct. As I mentioned in my testimony, I focus on the efforts that have taken place over the last several years. In very close dialogue between regulators and the industry to identify some of these things, some of these issues. There are other parts of the proposal from Secretary Geithner, particularly on systemic risk and how you address that issue, that really cannot be addressed in that private/public dialogue. It really needs to be addressed by Congress.

Chairman KANJORSKI. One of the issues that the professor brought up in terms of after the recession is over and after the recovery is had, the next natural pressure will be shopping for forums for the derivative industry and will be back in the competition. Is New York, is Chicago, is London or is Peking going to be

the capital where the industry goes? And it perhaps will be a race to the bottom of the least regulated area in the world. What could we do to create a position in the American market at least that would deny either getting the contract satisfied by assets held in the United States or some other means so that we would not change the forum of where these actions are taking place? In other words, can we in American law say any action taken in the derivative market in a foreign country that does not have an equal regulatory regime as the United States will not be actionable in the United States? Would that tend to be detrimental to their being trading abroad or in a different forum than they are now?

Mr. DON THOMPSON. Mr. Chairman, I would like to take that question. First of all, I disagree with the premise that derivatives dealers will automatically be looking for jurisdictions to operate in which present the loosest regulation. It has become abundantly clear to us that even if our own house is in order, if our neighbors' houses are not in order, that presents problems to us as an industry. So I would be careful about accepting the premise of my co-panelists as being fact for all derivative dealers.

Secondly, I do think one of the key unintended consequences that need to be avoided, and you used the word I believe "actionable" in your question, is creation of legal uncertainty about whether contracts are enforceable. These contracts are market sensitive instruments, which vary in value based upon the underlying market factors on which they are based. And I would urge Congress to avoid any formulation which calls into question the legality of existing contracts based upon any of a number of criteria which I think has the potential to be significantly de-stabilizing.

Chairman KANJORSKI. So rather than provide for actionableness as the qualifying factor, do you think that by treaty or international agreement, we could stabilize a world market recognizing standardized conditions?

Mr. DON THOMPSON. I think it would be much more effective and important for American policymakers to make sure that whatever steps we enact here in the United States are broadly consistent with the regulatory regime overseas as well to avoid any regulatory forum shopping of the nature you mentioned before.

Chairman KANJORSKI. What portion of nations would have to be participants in that type of standardization, of a treaty or otherwise, to accomplish the end, do we have to get 75 or 80 percent of the countries, certainly not all, because we cannot get all of them?

Mr. DON THOMPSON. No, I would imagine it would be, Mr. Johnson is right, this is a global business. It is a global business which is concentrated in regional hubs, New York, Chicago, London, Paris, and a number of Asian jurisdictions are the principal ones. I would not limit it to those, and I cannot give you a precise number. I think your instinct that you would not have to achieve unanimity in the international community but some reasonable number of major jurisdictions having the same regulatory framework is probably the right one.

Mr. PICKEL. Mr. Chairman, I might also add that there are existing international groups that I am sure you are well aware of, like IOSCO, the securities commissioners, there is the Basel Committee, which is very important on the bank capital front and also

the newly formed Financial Stability Board, formerly the Financial Stability Forum, which provide frameworks for regulators across the major jurisdictions to coordinate. And also ISDA is actively involved in meeting with regulators around the world, getting the word out about for instance these commitments made to the New York Fed in the letter last week. I was just on a phone call with the Australian regulators last week, we had our meeting, our large annual meeting for members in Beijing in April, and we were addressed by senior regulators from the Chinese community.

Chairman KANJORSKI. Thank you very much. I see my time has expired. Mr. Garrett, you are recognized for 5 minutes.

Mr. GARRETT. I thank the chairman. I thank the panel. To Mr. Thompson or anyone on the panel, following the chairman's comment, which was sort of going to the direction that if we do certain things in this country, we might push the industry offshore and your suggestion, and others may concur, that it may not be an issue of a race to the bottom. Maybe the flip side of that question is, is there something that we would actually do that would actually attract them back here to this market, and not just by having a proverbial wild west, as some would say, approach to it?

Mr. DON THOMPSON. Yes, I think that if correctly done, this has the potential to make the United States a pillar of financial responsibility in the sense that regulation intelligently applied will reduce systemic risk and increase transparency. And if it is done in an intelligent fashion where it does not by virtue of unintended consequences restrict the ability of end-users, mainstream American companies and the like, to continue to access custom risk management solutions from the OTC derivatives market, I think it has the potential to make the United States a pillar of responsible financial regulation and perhaps enhance the image of this country internationally.

Mr. PICKEL. I would also reference back to this whole discussion about legal certainty. The Act passed by Congress, the Commodity Futures Modernization Act in 2000, provided that legal certainty and Secretary Geithner's letter makes it very clear, and you have heard from the panelists today, that we should not tinker with that legal certainty. In that situation, if the wrong decision had been made, the business would have almost by necessity had to move elsewhere.

Here we are talking about aspects of regulation, it may on the margin increase the cost, it may in some cases decrease the costs. That will be a calculation in the decision as to where a transaction might be traded or booked, but we are not talking about undermining the fundamental enforceability.

Mr. GARRETT. And following along that line, along the adding the cost, and maybe Mr. Murphy or others want to chime in on this, a couple of thoughts come to mind. One of the proposals that are out there is in regard to clearinghouses, right? And one of the ideas is you have one central clearinghouse and another is you have multiple clearinghouses. And one aspect of that is to force the mandatory use of the clearinghouse. So could we do more harm than good if we said—the first question would be is that we have a mandatory use, basically standardize the marketplace, would that attract or distract?

And along that line, we had a gentleman speak to us the other night, and he made this point, which very quickly, he said that it is almost counterintuitive that if you allow for the option on the clearinghouses, that in fact in order to gain the liquidity, like Mr. Murphy and other industries would want in the marketplace, you actually would be driven naturally to that clearinghouse because that is where you are going to find the liquidity as opposed to outside of such a clearinghouse mechanism? Is that argument correct and answer the first question as well?

Mr. MURPHY. Well, let me if I can just back up on this international U.S. issue.

Mr. GARRETT. Okay.

Mr. MURPHY. From a business perspective, my concern—it is not this so-called "race to the bottom," my concern is as a global company, 3M has competitors all over the world, Germany, Korea, wherever the case may be, so it is not a concern about business leaving the United States, my concern is if I have a competitor in Germany and he can call up his or her banker in Geneva and deal in the OTC market on a more or less unfettered basis, and we have to deal with a different, more stringent regime here in the United States, now we are at a competitive disadvantage in terms of our ability to manage risk.

Mr. GARRETT. Right, so if you have a mandatory clearinghouse arrangement where you are required to have a cash or collateral backstop to that over here, that may create problems actually both over there and over here with that market.

Mr. MURPHY. Yes, there are really two issues with the mandatory clearing. Issue one, you may notice this large book that I have brought today with lots of 3M products inside of it, this is FAS 133. This is the Financial Accounting Standards Board's Ruling 133, which governs the accounting treatment for derivatives for corporations. As you might imagine, not a lot of pictures in here, not really very light reading. It is a very difficult standard, very stringent. It is getting harder to meet these requirements and not getting easier over time.

The problem with a clearing or exchange environment is that by their nature, products must become more standardized to work on those environments. And when you have a specific business risk, you need to, per the standard, hedge it with a specific hedge that matches up very precisely with that risk. And so if you move to a clearing environment, which is standardized by nature, you end up with a mismatch. You cannot precisely manage the risk. And so what happens is as a corporation, you lose hedge accounting treatment, which means the mark-to-market on those hedges hit your P&L, your income statement every quarter. And that is definitely something as a corporation you do not want to have happen. And so what that would lead to frankly in my opinion is companies will probably do less hedging frankly. So that is sort of issue one is being able to meet this.

The second issue is just a cost issue. We have done some studies, some of my colleagues and I, over the last month to say over the last 3 years, what would it cost 3M if we were in a mandatory clearing environment. And without looking at the administrative burden, without looking at any trading fees even, although the

trading fees are probably not a huge number, the margin required on average for 3M over the last 3 years would have been $100 million. At its high point in 2007, it would have been as much as $200 million. So that is $100 to $200 million of our balance sheet which we would have to move into this clearinghouse account to essentially just sit idle.

Now, 3M is a highly rated corporation—

Mr. SHERMAN. [presiding] Mr. Murphy, the time has expired.

Mr. MURPHY. Sorry.

Mr. GARRETT. Thank you, Mr. Murphy.

Mr. SHERMAN. I now recognize myself for 5 minutes. AIG was under the control of a ravenous and reckless management, a greed management, I am not saying there are not similar managements in control of other corporations. But in spite of that management, the regulated insurance companies did just fine because the regulation was the counterbalance to the ravenous, reckless and greedy nature of the management. The unregulated portion failed. And no one was hurt much except the taxpayer and the economy. The officers and directors seem to be doing just fine. And, more importantly perhaps, the counterparties have been insured to the last penny. What concerns me is that everyone in this room is just focused on how is it working for corporate America and not what is happened to the economy and the country and what risks have been taken by the taxpayer.

Now, is there anyone on this panel who can say that your organization came to Congress a couple of years ago and said, "My God, you have to stop what is going on in our industry. It threatens the world economy. AIG has gone crazy. Other companies have gone crazy." Is there anyone here who wishes to say that being on the front line, they looked, they saw, and they warned?

[no response]

Mr. SHERMAN. We are told that we could, through legal action, make it so that the next AIG was a foreign company. We are told that this is really an international business, which begs the question why is it that the United States had to bail out AIG and the foreign counterparties of AIG? And perhaps if bailing out is one of the responsibilities of the host government, would not we want to drive this industry overseas?

Mr. Pickel, is AIG a member of your organization?

Mr. PICKEL. Yes, AIG is a member of our organization.

Mr. SHERMAN. When you saw them taking risks that could bring down the economy and force them to squeeze taxpayers for over $100 billion, did you demand that they take corrective action or kick them out of the organization?

Mr. PICKEL. The nature of our organization is a member organization, we do not perform a self-regulatory function, so we do not enforce—

Mr. SHERMAN. So if the devil wants to join your organization, the only question is, does his dues check clear?

Mr. PICKEL. We have an extensive membership, including AIG, across the world, yes.

Mr. SHERMAN. But if the devil wants to join the organization, the question is, does the dues check clear?

Mr. PICKEL. We are involved in education and awareness.

Mr. SHERMAN. I am sure you do wonderful work. Now, I am told here we are losing the capacity to get the cheapest insurance most customized. Why can't I buy a customized fire insurance policy for my house from an unregulated Cayman Islands insurance company? The answer is we have decided that we want secure insurance companies. We do not want to have to be bailing them out. And we want the consumer to be paid.

Mr. Murphy, I assume that 3M has insurance, buyer and casualty and liability insurance. Do you buy any of that from unregulated companies with no known reserves?

Mr. MURPHY. I will be honest with you, I am not in the insurance area at 3M. We do purchase insurance for our facilities, but I cannot really give any more details than that.

Mr. SHERMAN. I have a number of other questions I will ask for the record. I see my time is nearly expired. I now recognize the distinguished ranking member of the full committee, Mr. Bachus.

Mr. BACHUS. Thank you, Congressman Sherman. I guess if the devil wanted to run for Congress, we could not prevent that either.

[laughter]

Mr. SHERMAN. But we would kick him out, wouldn't we?

Mr. BACHUS. I am not sure we would.

[laughter]

Mr. SHERMAN. We would kick him out of the Democratic Caucus. I yield back.

Mr. BACHUS. I am not sure you would.

[laughter]

Mr. BACHUS. What lessons has the financial services industry learned from the Lehman Brothers' bankruptcy and from the near collapse of AIG, any of you?

Mr. PICKEL. Let me comment briefly on AIG. They, through their credit default swaps, were taking exposure to subprime debt, the collateralized debt obligations, certain tranches of those obligations, so they had an appetite for subprime exposure. In fact, through their regulated insurance companies, as Mr. Polakoff testified in the Senate Banking Committee in March, they were also taking on exposure to subprime past the time that the financial products company stopped taking on exposure, well into 2006 and even 2007. So that was the appetite that they had.

They also looked at risk in a very narrow way. The head of FP, the Financial Products Division, was quoted as saying he could not imagine ever losing a dollar on these trades. And he was looking at that really only in respect to payouts on the transactions. He was not really looking at the mark-to-market exposure, which ultimately is what undermined AIG.

They also traded on their triple A, which other institutions—in fact some of the institutions who have been the source of the greatest problems, Fannie and Freddie, some of the monolines, have traded on their triple A, resisted the providing of collateral, and even worse, agreed in certain circumstances to provide collateral on downgrades. And, frankly, ever since the Group of 30 Report published in 1993, it has been very clear that downgrade provisions, where you provide collateral on downgrades, are to be dealt with very cautiously because of the liquidity problems they can cause. In fact, the banking regulators discourage them, they do not pre-

vent them but they do discourage the use of those types of provisions. So those are our observations on the AIG situation, and I think is very important as we look forward in reform.

Mr. BACHUS. Okay, thank you.

Mr. DON THOMPSON. Congressman, you mentioned Lehman Brothers as well, and I think it is important to realize that there were other entities besides AIG who have been part of the financial crisis that we are in and to recognize that not all of the financial difficulties which we have experienced have been a result of OTC derivatives. If you look at Lehman Brothers and you look at Bear Stearns, for example, you see the classic banking error being made again and again, which hopefully we will learn from, which is buying very long-dated assets that are somewhat illiquid, and funding them with overnight money in the wholesale money markets, which can go away at the drop of a hat.

And I think that if you look at exactly what happened to Bear and Lehman, that was the paradigm. Although they were both major OTC derivatives dealers, their OTC derivatives operations were mere footnotes in the story of Lehman and Bear. It was really compiling a large volume of 30 year mortgage-related assets and funding them overnight in the repo market that did those firms in.

Mr. PICKEL. I might also just add on the Lehman Brothers, it is a very effective example of a clearinghouse existing together with the bilateral. The clearinghouse existed for interest rate swap trades, and they settled out their trades very efficiently. And parties on the bilateral, as the master agreement relationship, moved to terminate and close out on a fairly reasonable time frame and crystallize those exposures.

Mr. BACHUS. Okay, thank you. Mr. Johnson?

Mr. JOHNSON. I think one last thing is that intellectually we always knew that a big dealer like a Lehman or Bear Stearns could go insolvent but given the amount of trading that was going on with those institutions, I am not sure that we expected it actually to happen and that it was sort of one of those 100-year events. And I think the reality has woken up a lot of people that how any counterparty can have these kinds of trouble.

Mr. BACHUS. Thank you. Thinking about how AIG never imagined that these things could go down, I guess a lot of homeowners, a lot of people who bought commercial property and houses sort of assumed the same thing, obviously to their detriment. But I appreciate those responses, and I think they are very insightful.

Dr. Johnson, you mentioned the turf battle here in Congress some time between CFTC and the SEC. Now, the Commodities Exchange Act actually excludes credit default swaps from jurisdiction of—well, they are excluded from the coverage of the Commodities Exchange Act, so the CFTC draws its jurisdiction from that Act. So if we were to give some function on credit default swaps, which are really meant to insure against default by a publicly-traded company I guess or a group of publicly-traded companies defaulting on their debt, if the CFTC was given that authority, would we have to amend the Act or would they have jurisdiction?

Mr. JOHNSON. Clearly, there is going to have to be a lot of regulatory changes to do what we are trying to do based on the current structure that we have, and that becomes the real question as to

who we are going to give this regulatory authority to. And that has been the battle since the early 1980's as to who gets to regulate this particular industry.

Mr. BACHUS. Yes, and I am not advocating regulation.

Mr. SHERMAN. I thank the gentleman. I recognize the gentleman from Massachusetts.

Mr. LYNCH. Thank you, Mr. Chairman. At the outset, I would just like to say if we cannot fix this system, given the experience we have had with this, if we cannot fix it and allow all investors and institutions to I think readily rely on a derivatives system, it is probably better that it go overseas rather than put the stamp of this country and the full faith and credit of this Nation behind such a system if we do not think it is really sound. Now, I have heard that argument before from other firms within the financial services industry that if we regulate this industry, it will go overseas. Well, there are probably some folks over in London who sort of wish that type of dynamic had not been created.

Now, a couple of observations that I want to make. Dimitris Chorafas wrote that, "Compared to horse-and-buggy classical bonds and equities, complex derivatives are supersonic engines." And I just want to bring to mind the power of derivatives. I will readily admit there is some advantage to be had from their use, but I am very concerned about the idea that there would be customized derivatives outside of a regulatory system because I think there is a certain attraction to firms, such as 3M and others, to have a derivative customized to their very specific situation. I understand the attraction of that. I also understand that where AIG and some others got into some tough situations in terms of the derivatives they were holding is that they were not fungible. They were so uniquely crafted that no one could determine what the value of those derivatives were and there were just no buyers on the market, so it seized up. So there were advantages but it also created problems.

Let me ask you this question: If we allow a customized derivative industry to operate outside of—just over-the-counter, without anybody knowing the details and the dynamic of those customized derivatives, and frankly stability has always been gained at some cost to innovation. That is just the way it operates. But if we are going to allow that to happen in this opaque and complex system, customized derivatives to be traded over-the-counter, how do the regulators protect the American system here, our financial system, if we do not know what is going on out there, the only limit is the creativity of some of those folks over at MIT, some of whom live in my district, how do we allow that to operate when all the good that your industry might do, you also have the ability to destroy the economy and bring the economy down, how do we balance that?

Mr. DON THOMPSON. Well, I would like to address that. I think that the framework that we have been working on with the Fed and the other regulators provides a paradigm here where you have clear transactions between major dealers that are standardized being given up to a clearinghouse. And then with respect to transactions that are not cleared, you have central trade repositories, which contain all of the trade information of those non-cleared transactions, whether they be not cleared because of their degree of customization or because of the counterparties to the trans-

action, which are accessible to regulators in whatever form and as frequently as they want it.

Mr. LYNCH. Okay, I understand that part so far, but let's go back to my point was if in the derivatives, you get a substantial number of derivatives that we call it, "the too many people on one side of the boat phenomena," like we had with AIG and a lot of others where unbeknownst to us everybody had loaded up on the same positions, those positions went bad, everybody tried to liquidate at the same time and because we did not know what the counterparty risk was there, we could not do anything about it, and so the boat sank. How do we get at that when we have an opaque system of customized derivatives, how do we get at that problem?

Mr. DON THOMPSON. Well, I do not believe you would have an opaque system of customized derivatives because all of the customized derivative trade level information would be in the trade repository and would be available to the systemic regulator on a more or less real-time basis. So to use your analogy, the systemic risk regulator sees who is going over to one side of the boat and is able to take preemptive action before everybody moves over to one side of the boat or before one major market participant, like an AIG, gets way over to the one side of the boat.

Mr. LYNCH. I appreciate your attempt there but having looked at these derivatives and how complex they are, and if they are all carved out individually, customized to these firms and their situations, I do not think there is any systemic regulator who is going to be able to make that determination based on the instrument itself. These are very, very complex, it is mind-numbing how complex these things are, and I just do not think that is a realistic expectation.

I think I have exhausted my time, Mr. Chairman. I appreciate your attempt to address that, and I appreciate the attendance of all the witnesses. Thank you.

Mr. SHERMAN. I will ask you for the record to comment whether instead of just making this available to the regulator, every word should be put on the Web site of every one of these that are in the depository, but I have no time because I yield to the gentlelady from Illinois.

Mrs. BIGGERT. Thank you, Mr. Chairman. My question is directed to all of you or whomever wants to answer. There has been much discussion or warning rather against a one-size-fits-all approach. So my question is, should we have three buckets of OTC products? For example, number one would be standardized OTC products potentially traded on an exchange; number two would be OTC products run through a clearinghouse or central counterparty; and number three would be customized OTC products that remain privately traded but are reported to a warehouse. So how would these be defined, how would you define these? And then second, should a trigger mechanism be established so that all OTC products clearly fall into one of these three buckets?

Mr. PICKEL. If I could just comment, I think that is a very good division of how this market will evolve and is already in the process of evolving. You would have an exchange traded, or perhaps an electronically traded element, that would allow the highly stand-

ardized trades to be traded that way. You would have this category of cleared trades and then you would have the customized trades.

I think the question of where a product is in the standardization process is largely a function of how actively traded and how liquid the underlying market is because keep in mind a clearinghouse will need to at least daily, and sometimes twice daily, mark those positions to market and call for margin, and so it needs to have a liquid market for that project. An exchange needs an even higher degree of liquidity, market makers who are active in the exchange, ready to do a transaction at any time during the trading day. So that liquidity I think largely drives where the dividing line would be, but that is not an easy determination to make.

Mrs. BIGGERT. And then what about the customized OTC products that would be privately traded, there would be no control over them except reported to the warehouse?

Mr. PICKEL. Well, there would be the reporting to the warehouse. There would be most of the dealers who are engaged in these transactions and would continue to be regulated, primarily by the banking regulators. And then for those entities that would fall into this category of taking on significant exposure to counterparties, the systemically important entities, you would have the systemic risk regulator overseeing their activities.

Mrs. BIGGERT. Could you suggest a trigger mechanism that would help to ensure that they fall into one of these buckets?

Mr. PICKEL. Well, I think that is the important issue, and we are actively engaged in conversations with the Administration about how we would go about identifying what is sufficiently standardized to move to a cleared environment and then furthermore to an exchanged trade or an electronically traded environment. I think that is something that the Administration is wrestling with currently.

Mrs. BIGGERT. Would anyone else like to—Mr. Thompson?

Mr. DON THOMPSON. Yes, I would like to add that in addition to the measures that Bob mentioned about the customized bucket of OTC derivatives, we are broadly supportive of the steps that Chairman Gensler outlined in his recent testimony in terms of codes of business practices, increased capital requirements, strengthened anti-fraud and market manipulation, and trade reporting. So I do not think it is fair to say you would be relying entirely on the trade repositories as the only measure. I think there are a host of other measures that Chairman Gensler has thoughtfully outlined and that are broadly consistent with the Administration's proposal as well.

Mrs. BIGGERT. Okay, thank you. Another question is would any of you care to describe any issues that you may have with the Waxman-Markey bill and how do you feel about a new transaction fee or tax? No interest in that?

Mr. PICKEL. Well, we have weighed in, we have worked with other organizations that are members to oppose those provisions. And I think that imposing a tax, just as has been debated over the years about imposing a tax on futures trading, I think harms the efficiencies of these markets.

Mrs. BIGGERT. Okay. No one else? Well, then if it has been a concern that some of the OTC derivative products are not safe for re-

tail investors, should we simply restrict participation in these markets? We heard long ago that these were not for the people who were in pensions or whatever but for those who had the ability to take a loss on a large amount of money and somehow it seemed to have slipped from that. Is there any concern that we would go back to that?

Mr. DON THOMPSON. Well, I think it is fair to say the over-the-counter derivatives market is already an institutional market. The eligible contract participant requirement in the Commodity Exchange Act restricts it from retail investors. Now, I guess one can quibble about whether that has been set high enough, low enough or whatever, but it is not, and has never been, a retail market, unlike the exchange traded markets.

Mrs. BIGGERT. Okay, thank you. I yield back.

Chairman KANJORSKI. The gentleman from North Carolina, Mr. Miller?

Mr. MILLER OF NORTH CAROLINA. Thank you, Mr. Chairman. You all have spoken of derivatives as being a risk management tool but it appears that there is a great deal more in derivative contracts than there is risk to manage. Mr. Kanjorski estimated or repeated the estimate of $500 trillion in outstanding contracts. Mr. Bachus said $684, which is the number I have heard more often, trillion. Our GDP is about $14 trillion, so that it is a big number. I know it is not a real number, it is a notional value, it is both sides of the transaction, on and on, but it is still a big number. Do you have a sense of what percentage of the outstanding contracts actually have one of the parties to the contract with an interest in the underlying asset? I was hoping for a short answer, not an essay on that.

Mr. PICKEL. We do not have a statistic on that specifically. In the credit default swap space, there is discussion about whether 10 or 12 percent or something like that would have that underlying interest.

Mr. MILLER OF NORTH CAROLINA. That is a small number, okay. There have been a lot of criticisms of naked derivatives, that it creates tremendous uncertainty about what the real economic consequences are for an event that would appear to be not that consequential. It creates an interconnectedness, it means that a great many institutions are too interconnected to fail. And some have even said that it means that there are a great many economic players who stand to profit from what appears to be an economic loss and have a power to make it happen.

There was an article in the Financial Times about 6 weeks ago about a bank in Kazakhstan. I am sure you know about it. Times have been tough economically in the former Soviet space and the Kazakhstan government took over the bank. Morgan Stanley had debt. That bank owed Morgan Stanley debt, Morgan Stanley could call the debt due if there is a change of ownership. Morgan Stanley said initially, "No, no, go ahead, just keep making the payments," and then they changed their mind and said, "No, come to think of it, we want you to pay it all," which they could not. And shortly after that, or about the same time, they filed with the International Swaps and Derivatives Association to start the formal proceedings to settle credit default swap contracts with that bank, and the sug-

gestion, the Financial Times' suggestion was that they actually made more money on their credit default swap positions than they would if they got paid by the bank. Is that concern a valid one? Is that something we should worry about?

William Buiter, a prominent economist, despite my difficulty in pronouncing his name, has called for derivatives to become instruments of insurance risk management rather than instruments for placing bets, for gambling. What is the social value in allowing derivative positions when neither party of the contract has any interest in the underlying contract? There are obviously a lot of downsides to that, what is the advantage?

Mr. PICKEL. Well, let me—there are a number of things to focus on there. One is this Kazakhstan situation where we as an organization and our member firms have been very sensitive to the issue of making sure that there is a Chinese wall, there is a division between the lending operation of a bank and the trading or CDS trading side of the bank. We have published a number of guidelines and rules. People follow those very closely. I think Mr. Thompson could elaborate on how that is addressed at JPMorgan, I am sure. So that is in place.

Furthermore, yes, Morgan Stanley did present the question to our determinations committee at ISDA but that is a committee of 15 firms represented, and they all agreed that what happened there was a credit event. So there was unanimous support in the marketplace.

Mr. MILLER OF NORTH CAROLINA. But more fundamentally, why should there not be something resembling an insurable interest? Why should 200 people be able to buy insurance on someone who turns up the victim of foul play? Why should there not be a requirement of an interest in the underlying asset? If there is not, how is it risk management?

Mr. PICKEL. Well, primarily because if you want to be able to have a product there for those who do need to hedge a risk, it is important to have a market there where people are willing to take a view on whether the pricing of that is cheap or expensive, so providing that liquidity.

Furthermore, you have the traditional bond or loan holder, but you have other individuals, including the dealers who sell the protection to those people who hold the bonds and loans who will also need to manage that risk. So it is a complicated issue of many different types of risks even though the underlying bond and loan may be only held by 10 or 15 percent of the users.

Mr. MILLER OF NORTH CAROLINA. I probably do not have enough time to ask another question, so I yield back.

Chairman KANJORSKI. Ask your question.

Mr. MILLER OF NORTH CAROLINA. Well, Mr. Murphy, you mentioned or you held up the FAS rule on how derivatives are treated in accounting. Insurance or re-insurance, we do not have much control over re-insurance companies. It is an international market, much of it is through the markets at Lloyd's but American insurers only get safety and soundness—credit from their safety and soundness regulator, State insurance commissioners, if the parties with which they have re-insurance meet certain criteria. Why should there not be a similar requirement or is there a similar require-

ment for safety—how are derivative contracts treated for safety and soundness purposes by financial institutions?

Mr. MURPHY. I am not sure I have an answer for that. I think maybe Mr. Thompson might be better qualified.

Mr. DON THOMPSON. Well, you used the—

Mr. MILLER OF NORTH CAROLINA. Obviously, it is both an asset and a liability, how is it treated on the books, how is it treated by safety and soundness regulators?

Mr. DON THOMPSON. So, how are our derivatives activities accounted for?

Mr. MILLER OF NORTH CAROLINA. Right, how are they treated for safety and soundness regulation?

Mr. DON THOMPSON. Okay, well, from an accounting perspective, we operate under a different regime than 3M has opted into with respect to its derivatives hedging activities. We as a dealer are subject to mark-to-market accounting with respect to our overall portfolio derivatives transactions. So everyday at the end of the day we total up all the gains, total up all of the losses, and those unrealized gains and losses, as they are called, are listed as assets or liabilities respectively on our balance sheet.

Mr. MILLER OF NORTH CAROLINA. In any of that, do you take into account whether the counterparties can actually pay?

Mr. DON THOMPSON. Yes, and in fact under so-called fair value accounting, there is something applied called a CVA, it is a credit valuation adjustment, such that if we, for instance, and 3M being the kind of credit that it is a bad example but I will use them anyway, if we have 3M as a counterparty and they owe us let's say $100 million across 10 different derivatives contracts and 3M's credit rating declines or actually we have keyed off their credit default spreads, if their credit default spreads indicate that they are a riskier credit, in effect we haircut the $100 million that 3M owes us, and we will claim it as an asset for let's say $95 million instead of $100 million, applying a credit valuation adjustment of $5 million to reflect the riskiness of the asset that we hold with respect to which 3M is obligated.

Mr. MILLER OF NORTH CAROLINA. I really have exceeded my time. Mr. Chairman, thank you for your indulgence.

Chairman KANJORSKI. Thank you very much. And now the gentleman from Georgia, Mr. Price, for 5 minutes? Okay, you want to subvert the rules on the Republican side and honor—okay, very good, we will recognize Mr. Hensarling for 5 minutes.

Mr. HENSARLING. Thank you, Mr. Chairman. Some of this may be a little bit of old ground, but I want to put a finer point on it. A Reuters article came across my desk a couple of weeks ago and it has this take away, I will quote from it, it is a May 14th article, "The Obama Administration's plans to move derivatives trading to exchanges could end up hurting companies that use the products because accounting rules often make customized off-exchange products a better choice for corporations. In the end, the Administration will have to limit the scope of the reforms it is looking for, press for new accounting rules for derivatives or risk killing the market for corporate derivatives, experts said," whomever those experts may be. I have a panel of experts before me now.

Mr. Murphy, you have commented somewhat on this but could you put a fine point, is changing FAS 133 one of the potential answers to this dilemma? And I think you mentioned that already it is being somewhat moderated, if that is the proper term?

Mr. MURPHY. Well, it is definitely not getting easier. This is a slope that I probably do not want to go down, but clearly if we move to an exchange or clearing environment, companies would have to re-examine whether they can continue to hedge under these regulations. So if you said that they were going to be relaxed somehow, could that possibly give kind of more running room to continue to hedge risk? I would say, yes, that is a possibility, but this is a big complicated document, and I think changing it would probably not be a slam dunk either, but it is a possibility.

Mr. HENSARLING. Anybody else? Mr. Thompson?

Mr. DON THOMPSON. Yes, I would like to address the question and maybe go through the accounting in a little more detail to make sure everybody understands it. Under the current accounting framework, the general rule for derivatives is they need to be mark-to-market. That applies to everybody, including 3M. And the rationale there is clear, their value changes day-to-day, your financial statements should reflect the value of your assets and liabilities, so to the extent that those assets and liabilities change day to day, that should be reflected in your financial statement.

Hedge accounting reflects a very narrow exception to that and it generally goes like this: When you have a specific liability or a specific risk, and you have a derivative so closely associated with that liability, that they are essentially part and parcel of each other, and a gain in one will exactly offset a loss in the other, you can ignore both marking the liability and the hedge to market and ignore fluctuations in the derivatives value.

To the extent that you relax FAS 133 and require a looser fit between the hedge and the risk that the hedge is hedging, you then do—you have a problem with respect to fair value accounting generally because you will allow people to avoid fair value accounting for things that are not a perfect hedge but only an approximate hedge.

Mr. HENSARLING. Let's talk about AIG for a moment since AIG really put credit default swaps on the public's radar screen. I would think in any prudent system of risk management, that public policy would want to encourage the proper use of credit default swaps and their risk management. Clearly, in retrospect, AIG took oversized bets that ultimately someone decided the taxpayer must be compelled to bail out, and I assure you it was not me. But the acting Director of OTS, under oath in this committee, said that his regulatory body had the manpower, had the expertise, had the regulatory authority to curtail AIG's CDS position, they just missed it. They just made a mistake.

So I guess my question would be this, if we had this concept of a clearinghouse in place prior to AIG's meltdown, what type of difference might it have made? And as we attempt to lessen the risk in the system, and clearly the flip side of risk is rate of return, but if all members of the clearinghouse are going to be responsible for the risk, does that not incentivize some to try to pawn the risk off to the larger group and have we not perhaps even created more

systemic risk and created the next big bailout with such a clearinghouse? Anybody who cares to answer, Mr. Pickel seems to be the first at the buzzer.

Mr. PICKEL. Right, not playing Jeopardy, are you. No, that is certainly a concern with a clearinghouse, and it has been identified by regulators as a significant concern, which is why having the appropriate regulatory oversight, having requirements for capital up front, margin requirements, a reserve fund, all those things are critical components. And the dealers who have been active in putting these together, whether it is the existing clearinghouse in the interest rate swaps base or the more recent initiatives in the credit default swaps space, have focused on providing just those protections. But it is something that requires regular diligence to oversee and make sure that that clearinghouse does not in fact increase risk.

Mr. HENSARLING. Thank you. I see my time has expired.

Chairman KANJORSKI. The gentleman from Georgia, Mr. Scott, is recognized for 5 minutes.

Mr. SCOTT. Thank you, Mr. Chairman. It seems to me that the issue here is the central clearinghouse, whether or not we should mandate it, and there have been some concerns raised that if we do that, that it will drive business overseas. Then there is also the issue of illiquid and unstandardized derivatives. And I would like for you to kind of explain to me how having a clearinghouse, as the Secretary of the Treasury, Mr. Geithner, has proposed, and which seems to be the drift here, would force this business overseas? Is that true first of all? And, if so, if you could explain how that would happen?

And since derivatives are based on a value of something else, meaning stocks and so forth, which I think is liquid, what is an illiquid and unstandardized? And does that bring a greater risk itself?

Mr. FEWER. Congressman, there is a class of—if we talk about credit, there is a class of credit product that is easily conducive to exchange listing. They are a family of a composite of index products that frankly account for a very significant portion of outstanding CDS contracts. And these are very, very standardized products, trade in very large size, high trading frequencies, an example would be a bespoke basket of credit default swaps. Dealers have huge portfolios of credit default swaps that they would like to customize and take some very difficult to trade names, put them in a basket and try to have the market price what actual protection on that bespoke pool. That would be a very difficult product to force through a central counterparty clearance. However, that does not mean that there could not be prudence from a risk-based capital standpoint.

And Basel II has done a lot of work along these lines, but also the fact that a central counterparty clearer and a trade repository would be able to bring some information regarding that trade, not necessarily give the specific trades that would expose dealers to having their proprietary positions open to the market, but being able to give regulators the appropriate information and the ability to assess value of the very, very bespoke types of transactions. But that would be an example of a bespoke transaction as opposed to

an index trade, which is a very high volume type, very, very standardized transaction.

Mr. PICKEL. I might add on the clearing point and whether that would encourage business to be done overseas, there is an initiative, which ISDA is involved in, as are our major members, with the European Commission to focus on establishing a clearinghouse over in Europe. There could be advantages to having a linkage between a U.S. and a European clearinghouse for the CDS product. But that is an ongoing discussion, so I do not see that—I do not see clearing as such as a driver for moving certain business—at least a market-driven reason for moving business here or overseas. It may be a regulatory-driven decision given the stance of the European Commission on that.

Mr. SCOTT. Okay, yes?

Mr. DON THOMPSON. I think that the moving business overseas argument is not one I am as focused on as the risk that companies such as 3M and other end users of derivatives, if they are forced into a mandatory clearing for everything or exchange trading platform, will simply choose to leave risks unhedged. And I think that is frankly the greater risk from a public policy perspective in the United States.

Mr. SCOTT. Let me ask you, I have a little bit more time left, I remember when this whole issue of derivatives came up in the great financial mind that we all have great respect for, Warren Buffett, referred to them as "weapons of mass destruction." Do you all think Warren Buffett was right?

Mr. DON THOMPSON. I have read that quote as well, and after I read that quote, I continued to go through Mr. Buffett's piece where he outlined his firm's derivatives portfolio, which, as I recall, was a large portfolio of CDS index positions, a recent entrance by his firm into trading single name credit default swaps, and I believe a large portfolio of puts, long-dated puts on the S&P 500 Equity Indices. So after I read the whole piece, which is the case with everything with Mr. Buffett, very illuminating, I found it difficult to square the beginning characterization of derivatives with the detailed disclosure of his firm's active participation in a number of OTC derivatives markets.

Mr. SCOTT. I see my time has expired. Thank you, Mr. Chairman.

Chairman KANJORSKI. The gentleman from Georgia, Mr. Price, is recognized for 5 minutes.

Mr. PRICE. Thank you, Mr. Chairman. I appreciate that. The decisions that we make here are consequential, in fact the decision to do nothing is consequential. But my concern oftentimes here, and I know that many of my colleagues here, whatever we decide, we often do not look at the outcome or the consequences of the decision that we make down the line. So, Mr. Murphy, if I could ask you a couple of questions as again the only end user of CDS's on the panel today. How has 3M utilized CDS's to benefit your consumers.

Mr. MURPHY. We do not use CDS products.

Mr. PRICE. You do not?

Mr. MURPHY. No.

Mr. PRICE. And so in the process of this discussion, do you have any thoughts about whether we mandate a clearinghouse in this arena or not?

Mr. MURPHY. In the CDS arena?

Mr. PRICE. Yes.

Mr. MURPHY. I really do not have an opinion on that.

Mr. PRICE. How about any over-the-counter products?

Mr. MURPHY. Other over-the-counter products, absolutely.

Mr. PRICE. And how is the use of over-the-counter products a benefit to your customers?

Mr. MURPHY. Well, it benefits our customers because it allows us to go into markets, particularly overseas, and be confident our products competitively and then manage the risk of converting those funds back into U.S. dollars. They are really pretty simple: we sell goods into Thailand, and we enter into a very simple derivative that allows us to sell Thai bhat by U.S. dollar at a fixed rate at a date out into the future. So we are able to go into those markets and more or less know what we are going to get back, being able to bring back to our shareholders in the United States in the future.

Mr. PRICE. Has 3M changed any of the policies that you have regarding OTC products since the financial meltdown last fall?

Mr. MURPHY. No, we have not. We just continue to be mindful that we want to spread our business around to various counterparties, that we are not doing all of our business with one or two banks, so we have a half a dozen institutions that we deal with. But I would say we have not made any policy changes in the last year.

Mr. PRICE. And the market for those products is the same, greater, less?

Mr. MURPHY. It is really the same. It has continued to function very well all through last fall.

Mr. PRICE. I want to pick up on some of the questions that my colleagues have asked about driving business overseas. Mr. Pickel, if I may, and I apologize for being out earlier, but in your testimony you note that, "Mandating that interest rate swaps and credit default swaps being traded on exchanges is likely to result in only higher costs and increased risk to manufacturers, technology firms, energy producers, utility service companies and others, who use OTC derivatives in the normal course of their business. It will put American businesses at a significant disadvantage to their competitors around the world." And when you say "American businesses," you do not mean the clearinghouses, you mean American businesses?

Mr. PICKEL. I mean companies like 3M, Cargill, Boeing, others that have exposure either to interest rate fluctuations or currency fluctuations.

Mr. PRICE. And in that risk to American business, you believe that would drive businesses overseas?

Mr. PICKEL. It would, as I think Mr. Murphy has highlighted, increase their costs and decrease their competitiveness, so that would likely result in less business being done by U.S. companies.

Mr. PRICE. Do you know what other governments are doing to determine their systemic risk in the derivatives market or act upon their systemic risk in the derivatives market?

Mr. PICKEL. Well, a lot of discussions are taking place over in the European Commission. It is now focused primarily on clearing, in establishing a clearinghouse for European credit default trades. The Commission is in the process, and we expect to see a report out of them in the next week to 2 weeks regarding OTC derivatives and how they might approach some of the issues. We anticipate it will touch on similar points to Secretary Geithner's letter from a couple of weeks ago.

Mr. PRICE. Mr. Thompson, I have just a few minutes left. You mentioned that if we mandated a clearing companies would "leave risks unhedged." What is the consequence of that?

Mr. DON THOMPSON. The consequence of that is that a company which is an exporter and is exposed to fluctuations in currency risk may incur losses as a consequence of currency exchange rates that it otherwise might not incur if it were enabled to hedge them in the manner that it wanted to in the OTC markets.

Mr. PRICE. So a decrease in potential business viability?

Mr. DON THOMPSON. It is generally being exposed to a risk that is not its core business. 3M is a great example. They make all these little things in the book and they do a great job, and we all use them. Their specialty is not forecasting interest rates or forecasting the exchange rate of the U.S. dollar versus the Thai bhat. They would prefer to hedge those risks away and focus on their core business, which is the attitude of many of our corporate clients.

However, if they have to post liquid securities or cash to a clearinghouse or if they have to suffer income statement volatility because their hedges have to be on an exchange and thus do not qualify for FAS 133 hedge accounting, they face a difficult choice: Do I pay the increased cost? Do I suffer the increase income statement volatility and go ahead and hedge the risk anyway or do I not hedge the risk and hope it works out for the best? I am sure some companies will pay the increased cost. I am sure some companies will say, "No, we will leave the risk open." I think in neither case is that good for American business.

Mr. PRICE. Thank you, Mr. Chairman.

Chairman KANJORSKI. The gentleman from Connecticut, Mr. Donnelly, for 5 minutes? I am sorry, from Indiana. I am always putting you in Connecticut.

Mr. DONNELLY. You have me on a vacation, sir. Thank you, Mr. Chairman. I guess I would just like to ask following up, we heard about the risk to American business, I come from Indiana, and I will tell you what the risk to our business has been, it was the destruction of the credit markets. And we saw business after business fail because of what happened in the credit market. So when I think about risk to American business, I think about the entrepreneurs in my towns whose credit simply dried up on, who were unable to have their business function because of what happened in part in the derivatives market. So that risk comes in many different directions.

With naked credit default swaps, in reading your testimony, we talk about enabling the transfer of risks between counterparties.

Now, if we have naked credit default swaps where Mr. Thompson is betting on Mr. Pickel's package of securities, and someone else is insuring it, what risk are you transferring? Is not that just a straight bet? I mean you do not even own anything. You are just betting on somebody else's judgment. Anybody can comment.

Mr. DON THOMPSON. Okay, one thing I think one needs to keep in mind in the naked CDS debate is there are a number of different market participants who use the products for very different purposes. There are hedgers, small banks for example, who hedge their loan book or their securities holdings in a more traditional fashion. There are also investors, hedge funds, asset managers, pension funds and the like, who engage in credit derivatives activity as an alternative to other investments, either buying bonds or other funded financial assets, and they comprise a significant percentage of the over-the-counter CDS market.

Mr. DONNELLY. But that is speculation, that is not a risk transfer. That is totally different.

Mr. DON THOMPSON. You can assign it whatever term you would like. I prefer to think of it as investing in the hope of getting a return. If that equals speculation, so be it.

Mr. DONNELLY. But risk do you have if you do not own the underlying assets to start with? You are not putting off the risk you have in owning those, you are simply speculating on somebody else's judgment is all you are doing.

Mr. DON THOMPSON. What that investor is doing is deciding to take credit risk in CDS form instead of taking credit risk in more traditional form, such as buying the bonds of a particular issuer or buying loans of a particular issuer. That also happens frequently in the financial markets. What we have seen with many investors is they prefer to take risk in CDS form because the CDS market provides diversified, lower risk forms of credit risks, such as the credit default swap indices, which are the most popular product in the over-the-counter CDS market.

Mr. DONNELLY. But it is not the risk of them having anything underlying that they own? They are making a bet on someone else's judgment.

Mr. DON THOMPSON. If you think of a typical investor, they are typically long on cash and they need to invest that cash in an investment. That invest that cash in an investment. That investment could be a traditional investment product, such as a bond or a loan, or another form of funded financial instrument. Alternatively, many investors prefer to transact in the derivatives market in a so-called non-funded product whereby they get compensated for taking credit risk, often to a broad-based index of companies, such as the CDX index, which is the prominent index which trades in the United States.

Mr. DONNELLY. Why would making those trades more transparent result in less competitive conditions for American companies, why would transparency harm their ability to manage risk instead of being stuck in a drawer at AIG that everybody in Indiana eventually has to pay for?

Mr. DON THOMPSON. I think that is an excellent question, and I think that the first point I would make in response to it is we are broadly supportive of increased transparency in the OTC mar-

kets generally and particularly in the CDS markets. We have been working actively with the Fed and other regulators for the past 4 years to increase transparency, increase centralized clearing of standardized contracts, including many of the index products, which I mentioned to you in my earlier remarks, it is not at all the case that we are opposed to increase transparency in the OTC markets. We do think that one needs to be careful when making decisions about market structure as a public policy-maker, to consider not just the benefits of transparency but it does in certain cases have costs as well. And all we ask is that there be a thoughtful debate about the relative cost and benefit.

Mr. PICKEL. I would also just add that the risk that AIG was taking on through their use of credit default swaps represented a very small portion of the overall CDS business and what they were doing was taking on exposure again to underlying subprime risk. And to the extent that, I think somebody said earlier, the CDS were hard to value, the CDS value is driven by the value of the underlying position. It was the CDOs that they sold protection on that were in fact hard to value.

Mr. DONNELLY. You say it is a small portion of it, but that is like saying, "Well, it is a small natural gas pipe but it blew up the whole house." We are in a position where we have business after business that folded and encountered extraordinary difficulty because of what happened based on the credit market actions that began in New York and in other places.

Mr. DON THOMPSON. And no one is advocating another AIG. And, in fact, a key part of many of the proposals, which we as an industry do advocate, is a systemic risk regulator, which is professional, well-funded, and has a holistic view of risk across the entire risk spectrum. And the reason we advocate that is precisely to ensure that another AIG never occurs.

Mr. DONNELLY. Thank you very much. Thank you, Mr. Chairman.

Chairman KANJORSKI. Thank you. The gentleman from Texas, Mr. Neugebauer, for 5 minutes.

Mr. NEUGEBAUER. Thank you, Mr. Chairman. Mr. Murphy, besides derivatives, are there other ways that you could hedge your current C positions in other ways or is that the sole way that is available to you?

Mr. MURPHY. There are some operational things you can do in certain countries, for example, where we do not use derivatives, where the derivative markets are not developed, Latin America for example. You can change payment terms with customers, you can take out debt in certain currencies and match that against some of your assets in those currencies, but typically that takes place in those more Third World type markets. In G–20 countries where we have sophisticated competitors who have access to capital markets, we have to be more nimble, more efficient from a pricing standpoint, and so derivatives are clearly the number one way to go.

Mr. NEUGEBAUER. Okay. Mr. Pickel, when you look at the market between what possibly products that could be standardized and then those that are a custom, and I think you have done a pretty good job earlier of kind of differentiating what those definitions

are. What today if everything was sorted into two stacks, customized and standard, what would the mix be?

Mr. PICKEL. It really varies by product type. In the credit default swap space, especially with some steps taken earlier this year to standardize a couple of other parts of the trading terms, there is a high degree of standardization across index and single name products. So, again, it is hard to say exactly what that number would be but people throw out the number of 80 to 90 percent but there is still a decent portion that would be customized.

In other product areas, for instance in the interest rate swap world where there is—there has been an existing clearinghouse in London for close to the past 10 years, they clear about a little over 50 percent of inter-dealer trades, so not the customer trades and not all dealer trades but a significant portion, and there is probably more room there in the interest rate swap space to achieve more.

And then also in energy areas, there is a fair amount of clearing through an ICE facility that is used and also the NYMEX Clearport Facility. Equity derivatives, there are some clearing options available. But it is hard to say exactly what that percentage would be.

Mr. NEUGEBAUER. And one of the things that is being discussed is whether there should be one clearing or a multiple clearing. And just kind of going down the row there, kind of give me your perspective, one or many? Mr. Fewer?

Mr. FEWER. Most likely it would probably make sense that there would be one or two global clearers. The issues in Europe I think surrounding what constitutes bankruptcy are probably being looked at and properly addressed so that there will be much more cohesion with U.S. interpretations, so certainly no more than two.

Mr. NEUGEBAUER. Okay, Mr. Pickel?

Mr. PICKEL. I think inevitably it will be many certainly to begin with but over time the market will determine, and I would not be surprised if we would move to two or one.

Mr. NEUGEBAUER. Mr. Murphy?

Mr. MURPHY. I would agree with the many answer, at least up front. I worry about from a band width standpoint, the size of the market, is there a player out there that is really able to take this all on in one big bang?

Mr. NEUGEBAUER. Mr. Thompson?

Mr. DON THOMPSON. I would echo Mr. Murphy's comments about the band width restriction. These are incredibly complicated and difficult things to set up and get up and running. I also think it is worth pointing out that they are by their nature, especially if coupled with some form of mandated clearing requirement, anti-competitive in that you have no choice. So having some alternatives, in the sense of more than one, is probably a good thing from that perspective.

Mr. FERRERI. I think it is going to wind up being no more than a handful. I do not see the benefits to a regulator to have to look at 30 or 40 or 50 different clearinghouses to try to find out what the repositories might be. Having said that though, I think the competitive nature of our business and having to keep cost down in an effort to handle a high band width needs of markets will mandate the need for two or three.

Mr. JOHNSON. There is some academic evidence that suggests the benefits start going down if you have more than one.

Mr. NEUGEBAUER. And a follow-up question, what benefits start to go down if you have more than one?

Mr. JOHNSON. I think it is efficiencies and competitiveness. I would be happy to get you a copy of some of the articles on that.

Mr. NEUGEBAUER. I would like to see that. I see my time has expired. Thank you, Mr. Chairman.

Chairman KANJORSKI. Thanks, Mr. Neugebauer. The gentleman from Illinois, Mr. Foster.

Mr. FOSTER. Thank you, Mr. Chairman. Mr. Johnson, on the last page of your written testimony, you have a very interesting pie chart with the different components of the OTC derivatives market. And the most interesting number to me there is that credit default swaps are 7 percent, which is interesting considering the effect that they have had on our economy. But if you start with the big pieces, interest rate contracts are 71 percent. And it seems to me that they represent a rather small systemic risk and are already exchange traded and so on, and that really there is not a lot of action that is necessary from our point of view there. Is that something you would agree with?

Mr. JOHNSON. Well, I think the pricing is more stable, although we had some wild gyrations that went on after the Lehman failure. I think the more stable and the more commodities and—

Mr. FOSTER. Are they all standardized?

Mr. JOHNSON. No, no, they are quite different from each other. I think one thing the market has done though is that the pricing of them is very easy to do in terms of everyone is able to price them and come up based on how LIBOR moves and come up with them.

Mr. FOSTER. Similarly, the foreign exchange contracts, the transparency of those must be total essentially?

Mr. JOHNSON. Well, it is the most liquid and largest market—the most liquid market is currency and so you do tend to get better pricing, although Mr. Murphy could probably explain better.

Mr. FOSTER. Yes, so would you also agree that the systemic risk probably is not there if that is what we are worried about?

Mr. JOHNSON. Oddly enough, we have had some terrible crises involving foreign currency issues. Back in 1998, we had our Indonesian crises, in Hong Kong and other places, where the problems keyed off of foreign currency problems. Mexico just recently has had tremendous problems with their bets made on foreign currency, that has bankrupted several companies there tied to the derivative industry and so it comes and goes depending on how they are structured.

Mr. FOSTER. Are there specific motions that we can make that you find attractive to try to stabilize that or prevent that sort of mess in the future?

Mr. JOHNSON. Well, I think what is interesting is the good work that is being done in the credit default swap market as the regulators have nudged participants to clean up the area and to try and reduce systemic risk. Some of the best practices, and it has almost become a model for what we could do in other areas as we move forward.

Mr. FOSTER. And if I go to the next smaller slice is credit default swaps at 7 percent. And a general question, would have forcing all of the OTC derivatives on to clearing or an exchange have prevented AIG financial products, at least the part that was not related to the mortgage lending or their securities lending business?

Mr. JOHNSON. I think a huge problem with AIG was their margin calls that they received as their credit rating slipped.

Mr. FOSTER. Would that have been allowed if they had been on an exchange, at least of the kind I am familiar with?

Mr. JOHNSON. They clearly would have been margined differently, and I defer to—

Mr. FOSTER. Right, and so at some point the people who supervise the margins and the capital accounts here would have said, "Okay, guys, you are trading on the good name of AIG, but we want to see the collateral," and that is what would have stopped them, is that a fair guess as to how the scenario would have played out or are there more—do I not understand the mechanics of how AIG would have been prevented by putting it on the exchange?

Mr. JOHNSON. So, Congressman, I think that at the time that what AIG was doing was selling default swaps on very complex CDOs. If those credit default swaps were then subject to some type of margining certainly earlier on, the dealers that were buying those credit default swaps, to hedge their own portfolios, would have looked at it and said, "This does not make sense. We would not be able to post a margin that the exchange would require in order for us to do this transaction." And margin requirements, particularly in single name default swaps, is a complex issue because the default probability that the exchange would have to calculate to get the margin is something that needs work.

Mr. FOSTER. So, again, the thing you would say is to actually have margining in collateral posting requirements—

Mr. JOHNSON. Well, that is what it—

Mr. FOSTER. —to prevent this sort of—that is what is actually more important than the transparency of exchanges, the transparency I take it was not an issue with AIG?

Mr. JOHNSON. The transparency of the over-the-counter market, if it is really looked at, is generally healthy and the perception that would happen in AIG really reflected the transparency of the global over-the-counter market is not—there is not a direct relationship there. Certainly, if there was a central counterparty clearing facility in place when a dealer would have went to try to book a trade to hedge his or the CDO portfolio, the amount of margin required certainly would have—

Mr. FOSTER. That would have triggered—

Mr. JOHNSON. That would have—

Mr. FOSTER. That would have stopped it?

Mr. JOHNSON. —at least a question and turn around and say something is not right.

Mr. FOSTER. In order to preserve that, you need to have that sort of margin requirement for both the customized and the non-customized things if you intend to use margining as the way of preventing future AIG's? Okay, thank you. I yield back.

Chairman KANJORSKI. Thank you very much, Mr. Foster. Now, we will hear from the gentlelady from Minnesota, Ms. Bachmann?

Mrs. BACHMANN. Thank you, Mr. Chairman. I had a question for Mr. Murphy, and I understand that earlier you had mentioned that 3M would see anywhere between $100 million to $200 million, if that was accurate, should 3M have to post against their risk management activity. Is this impact unique to 3M or what are you seeing with other countries—other companies across the board?

Mr. MURPHY. No, it definitely would not be unique to 3M. As we are a large company, those numbers are large probably relative to other companies, but it could be a smaller company, a mid-size company, a small company that is $50 million in sales and imports goods from Germany, they could be in the same boat. And, frankly, the smaller company is going to be even worse off because they will have fewer resources to credit than a 3M would. They may have a single bank and that bank may not—may have tighter covenants on their loan agreements and so that capital is even more valuable or more scarce to a smaller entity. So it would be very, very widespread. It would not be limited to a large multi-national like 3M.

Mrs. BACHMANN. What about the issue of transparency, we hear that a lot and I am wondering, do you see transparency now being available on over-the-counter products?

Mr. MURPHY. Well, certainly we have very lengthy disclosures that we have to make as a publicly-traded company. That is not the same for privately-held firms obviously. But we see in foreign exchange, for example, over 50 percent of the volume in foreign exchange is done on electronic platforms. We are definitely in favor of the idea of potentially the trade repository where that information gets delivered on a more real time basis. We would like to work with the committee on that effort. So we are definitely not opposed to greater transparency but I can tell you the market today is certainly much more transparent than it was 5 or 10 years ago.

Mrs. BACHMANN. And what would your suggestions be on efficiency and transparency, that is where I think the committee wants to go with greater efficiency and transparency? You had mentioned a little bit of what your concerns were and maybe what your ideas were?

Mr. MURPHY. Well, again, I think we certainly would have to work with the dealers. I think, again, this trade repository idea is the one that we would be most in favor of. We believe that the OTC market, as they are structured today, are very efficient for corporations, so I am not sure—we certainly do not believe that moving to a mandatory clearing or exchange environment would improve the efficiency of the market in any way.

Mrs. BACHMANN. Mr. Chairman, I do not know if I still have time remaining but I would open that question up to anyone on the panel, your suggestions for improving efficiency and transparency, knowing that is where our body is hoping to go?

Mr. FERRERI. If I could add just a comment. Many references have been made to the foreign exchange market. That 50 percent of foreign exchange trading, the spot foreign exchange markets happens at ICAP on screens and electronically. The transparency issues are price transparency, which is the over-the-counter interdealer market, wholesale market and the trade transparency which falls under the trade repository. So it is a twofold transparency issue. I also think it is important, I have not heard much about

this and the exchange concept but delineating between an exchange traded contract and an over-the-counter traded contract on an electronic mechanism, all right, that were not defined as electronic exchanges but these are fully transparent and in real time. So there are ways to enhance the transparency. They evolve over time. U.S. Treasuries, when I started in business a very long time ago, were barely onscreen. They were traded over telephones. Today, they are fully electronic with real time post-trade processing. So it is an evolutionary process. Mechanisms are in place to advance that and the ability to advance that frankly is based on the liquidity as it grows in the asset.

Mr. PICKEL. I think to the extent that we can encourage various ways of trading, various ways of managing counterparty credit risk, clearing and a bilateral relationship, all of that generates information for the participants in the market. It generates information for the regulators and in many cases it generates information for the public generally. So I think to the extent we can encourage the clearing, the trade repository, electronic trading. And, of course, exchange trading exists in many product areas, not exactly to mirror the underlying or to mirror the OTC product but it provides an effective hedge, particularly for dealers who are looking to hedge the exposures they take on through their OTC risk. They can lay that off in many ways via the exchange trading of products. So the more variety we can provide here, I think the better transparency overall.

Mrs. BACHMANN. Good. I yield back, Mr. Chairman.

Chairman KANJORSKI. Thank you very much, Mrs. Bachmann. Now, we have the gentleman from New York, Mr. McMahon, for 5 minutes.

Mr. MCMAHON. Thank you, Mr. Chairman, and thank you for allowing me to participate in this hearing with you today as a guest Member.

I want to first give a shout out to Mr. Ferreri. Chris, it is great to see you here, and I am proud to introduce you to my colleagues and to the chairman as a constituent and proud son from the great borough of Staten Island and New York City. And I have said here in my months in Congress, since January, New York City is the financial capital of the world, and when I tell my colleagues that I represent people from the executive level all the way to the back office and support services, certainly it is great to have you as an example of the people who make this industry run.

I know that many of my colleagues feel some anger toward the financial services industry, but I just would like to caution that those who think it would be okay to let part or all of this industry move to other countries or not be successful would be a bad thing for our Nation, it certainly would be a very bad thing for the people whom I represent, more than 80,000, just in my district alone, who directly work in the industry and many as well. And certainly we look to bail out General Motors, but we do not say, "Let's get rid of the automobile industry in this country," and I think that is something that we have to be mindful about.

As you know, Chris—Mr. Ferreri, when it comes to the practice of trading credit default swaps, the House and the Senate have approached this issue in different ways. The House bill, which passed

the Agriculture Committee, banned credit default swaps while the Senate bill did not. Yet, the Senate bill also goes a step further requiring exchange trading for all over-the-counter derivatives. So there is a blending here, and I even heard in the testimony, it may be in confusion, credit default swaps is that all derivatives, and I know Congressman Foster fleshed this out a little bit, but clearly the credit default swaps led to the downfall of AIG, as well as the financial instruments upon which they were based. But if you could just kind of flesh out a little bit more how much of the overall derivative market is credit default swaps and what role does it play in the overall industry?

Mr. FERRERI. Dr. Johnson put together a very good summary that it is a small percentage of the overall derivative market. Interest rate swaps make up the largest portion of it. Interest rate swaps are on screens, a representation of those markets are on screens to hundreds of thousands of people worldwide to participate in the interest rate swap business. The ability to see a bid in an offer, someone willing to take risks, take a position on a product on a screen or through the inter-dealer market does enhance the information flow, it enhances the knowledge that people have to participate in these markets. The CDS market for ICAP is very small. For us as a company, it is less than 3 or 4 percent of what we do. So it is not this embedded CDS bias. I do think frankly that the ability to migrate products as they come on to screens, on to electronic platforms, is a natural progression toward liquidity. And I think as those markets become more standardized and the ability to clear them and to margin them, which is not talked about very much when we talk about clearing, to effectively margin them would make sense.

Mr. MCMAHON. So are credit default swaps the problem in all that is going on here, and should we focus only on those and leave the rest of the derivative market alone and that would allow certainly Mr. Murphy, 3M, most of their derivative action seems to be with foreign exchange fluctuations? Do you understand my question? My fear is we are throwing the baby out with the bath water, can we separate the two here?

Mr. FERRERI. It is effective derivatives regulation, right, so this is about the derivative market in general. CDS, CDOs, at the core of the AIG problems, and books are being written about the AIG failure, but I do think that from a broader perspective, the over-the-counter market in derivatives exist because there is a strong need and demand. These are not products that are built up and no one participates in. These are products that have been developed over time, have been developed to assist a hedge to a specific need, and as a result become a tradeable object. So I think as those tradeable objects become more liquid, we can see that the increased liquidity, it is an evolutionary process.

Mr. MCMAHON. But can we remove anyone, can we remove the CDS's out of this equation and leave the derivative markets alone and just deal with that one issue or you have to deal with it all together?

Mr. FEWER. Congressman, I would try to look at the CDS market from a different viewpoint. The CDS market generally is made up of very liquid CDX index product, most of what is traded, and sin-

gle name product. That area of the credit link market is very, very conducive to central counterparty clearing. These instruments did not cause the problem of AIG. The collateralized debt obligations did, everyone knows that. It would be a fair comment to say that a proper postmortem of AIG, to really understand what the dynamics were between CDS and the actual CDOs, however, to parcel out CDS from the rest of the derivative world, we should be able to apply the same rules right across the board. And over a period of time, CDS happens to be in the major headlines but over a period of time, I think that the general public will see that whether it is a credit index or an equity index or a interest rate swap, these products can be very well harnessed and managed within the context of proper market protocols.

Mr. PICKEL. I think the critical thing, building on the Geithner proposals, is the focus on an entity that builds up significant counterparty exposure. That is kind of, if you will, the AIG clause of the proposal. That is what AIG did. They happened to build that up via selling protection on the super senior tranches of these CDOs via credit default swaps. It is conceivable, although frankly not that hard to conceive, that somebody could build up that position in interest rate swaps or equity derivatives or something like that. It is possible, and therefore I think if you had the authority for someone to be able to identify that and step in and regulate that type of build up, then I think you deal with the AIG issue, whether that next issue is a CDS issue, an interest rate swap issue or some other derivative type issue.

Mr. MCMAHON. That entity that would identify that, that is a so-called systemic risk regulator?

Mr. PICKEL. Well, that is who would eventually, based on the information from these warehouses that would exist for the different product areas, that would be the entity that would step in and oversee that. I think that entity would also need to work very closely with the existing regulators of the banks and other institutions because the banks see that flow, they see that build up. Even in the situation of AIG, the regulators would have been able to see that the banks were taking on exposure to AIG.

Mr. MCMAHON. My time is up, maybe you can end with this, Mr. Thompson, I call it my "Chicken Little question," which is did not we have those checks and balances in place already and there is the Fed and there are all these other agencies, why was not that done in the past and why is the creation of a so-called systemic risk regulator would inhibit this from happening again when we really should have been inhibited this time around?

Mr. DON THOMPSON. Fair enough, that is an excellent question, and I think when people are talking about the systemic risk regulator, the idea is not just another regulator. It needs to be a regulator who has market savvy across a wide range of financial instruments.

When we think about the problem here, the problem is risk, not the form in which risk is taken. So you can look at AIG and say they piled up all of this risk in CDS form, ban CDS, but then my response in part would be look at Lehman Brothers and Bear Stearns who piled up billions of dollars of risk in the form of mortgage-backed securities, which in and of themselves are fine and

unobjectionable and serve a very valid commercial purpose, but the manner in which they finance them on very thin margins in the repo market meant that they were able to lever up 30 or 40 to one with obvious disastrous consequences. What you need is a systemic risk regulator who can look at the whole risk spectrum, understands all the products, and ensures against a reoccurrence of overleverage and excessive risk-taking in whatever form.

Mr. MCMAHON. Thank you. Thank you, Mr. Chairman.

Chairman KANJORSKI. Thank you very much, Mr. McMahon. We want to thank the panel for their participation, but if I may, before we close down the first panel, you really heard the questions of the committee members on both sides. We are not looking at just regulating for the sake of regulating. We are looking at what is the best thing to do under the circumstances, and I would just point out my observation on AIG. The reason why it is such a traumatic failure is that it represented a failure of the marketplace. Every person involved in those transactions with AIG should have been doing due diligence to see whether there were reserves, whether there were margins there, whether their counterparties were responsible to pay off. It shocks me that engaging in $2.7 trillion in derivative risk by AIG without any of the great companies of the world, calling their attention to AIG, that they did not have the support systems or reserves behind the products they were guaranteeing says to me the market failed. Now, why it failed, I do not know. Did the sellers of those risks or the traders of those risks think that they were too-large-to-fail and exactly what would happen, as did happen, that the government would come in and stand as a supporting party? And if that is the case, then what we see here is a total failure of the marketplace that needs great regulation.

I do not happen to agree that we need necessarily great regulation, but what I capture from the testimony of all six witnesses today is that you obviously have greater knowledge than the members of the committee. I would like you to help us. We have to write some regulations, which we have probably identified. We need some requirements for reserves. We need requirements for transparency. We need some requirements that when we have a systemic risk evaluator, I will not call them a regulator, because if are going to have a systemic risk regulator, that has to be some super regulator that has authority over every transaction of commerce in the world. I do not think America wants that, nor an it afford it. And we are just putting off until tomorrow another disaster because they will not be testing the great institutions, like AIG, they will be going and looking at the questionable institutions.

So, what we really want to get to is an efficient, effective way, call it regulation or call it watching, what you will, but the use of your knowledge, the members of this panel and maybe a few other experts around the country, to sit down and argue among yourselves if you will, and send us some of our regulations and your suggestions for regulation or oversight so that we can have that as we deliberate to right the new methodology of doing this. If you fail to do that, I think you can clearly see that there are no derivative experts on the Financial Services Committee. I have my fellow members here, and I think they will agree. So, we will be operating blindly. On the other hand, if we can get your suggestions and your

assistance, we probably could make a major attempt here to get this right. That is what I would like to see you help us do.

So, before I dismiss the panel, is there any reason why any of you would not be willing to serve in advisory roles and perhaps collaborate among yourselves and perhaps over the next several months because that is all we have until we get to writing the comprehensive regulation that we are going to have, covering this field and many others, particularly in the derivative field, I think you have established to me that clearly it is a tool of great value. Listening to 3M's testimony, I can imagine what it would take to do 70 percent of your business worldwide and not have a tool of derivatives to guarantee the cost of your product and the value of the currency you are dealing in the sales contract of the future.

So, that being the case, why do not the best minds in the country help out the Representatives of the people of the country to write the best rules and regulations to allow the markets of the country and the world to properly function? If I could indulge you on that, I would appreciate it. Is there anyone who would not be willing to serve?

Mr. DON THOMPSON. I think we would all volunteer for that.

Chairman KANJORSKI. Okay, well, consider yourself imposed in the army to solve the derivative problem. And thank you very much for your appearance and your testimony today, we certainly do appreciate it. Thank you.

Thank you very much. We will now have our second panel. First of all, thank you all for appearing before the committee, and without objection, your written statements will be made a part of the record. You will each be recognized for a 5-minute summary of your testimony.

First, we have Mr. Thomas Callahan, chief executive officer, NYSE Liffe. Mr. Callahan?

STATEMENT OF THOMAS F. CALLAHAN, CHIEF EXECUTIVE OFFICER, NYSE EURONEXT

Mr. CALLAHAN. Chairman Kanjorski and members of the subcommittee, my name is Tom Callahan. I am an executive vice president head of U.S. futures for NYSE Euronext.

NYSE Euronext operates one of the world's largest and most liquid exchange groups, bringing together seven cash equity exchanges and seven derivatives exchanges in six countries.

In addition, in late May of this year, we received approval and principal from the UK's FSA to launch NYSE Liffe Clearing and will shortly begin providing derivative clearing services for our London derivatives market. We also provide technology to more than a dozen cash and derivatives exchanges throughout the world. NYSE's geographic and product diversity informs our views on the principal issue we are discussing with you hear today.

I am pleased to appear on behalf of NYSE Euronext and its affiliated exchanges as the subcommittee considers the possible amendments to the various Federal laws that affect over-the-counter derivative transactions. NYSE Euronext has always been an advocate for fair, open, and transparent markets. Accordingly, our global exchange group has a strong interest in the appropriate regulation of OTC derivatives. A large number of our over 4,000 listed compa-

nies use OTC derivatives as fundamental hedging tools to manage the various risks incurred in connection with the conduct of their business. It is essential that these companies have confidence in both the integrity of the transactions they enter into and in the ability of their counterparties to perform their financial obligations. An appropriate and sensible regulatory regime for OTC derivatives is a necessary element in restoring and retaining this confidence.

While it is essential that OTC derivatives be subject to greater regulatory oversight, it is also important that the regulatory regime not impose unnecessary requirements that greatly diminishes their value, or worse yet, drives these vital markets to opaque offshore jurisdictions.

It is for this reason that we strongly support the proposed framework for the regulation of OTC derivatives that Treasury Secretary Geithner set out in his May 13th letter to the congressional leadership, which takes into consideration the differences amongst OTC derivative products and the legitimate needs of market participants that use these products to manage their business risks. In particular, we agree that to the extent OTC derivatives are standardized, they should be traded on a regulated exchange or a comparably regulated electronic trading system and cleared through a central counterparty. The clearing of OTC derivatives will reduce systemic and operational risks, increase market transparency, and create market surveillance databases from which regulatory authorities can audit for potentially fraudulent or manipulative activity.

To the extent a limited class of OTC derivatives are sufficiently customized and therefore cannot be executed through an exchange or electronic trading system or cleared through a central counterparty, such transactions should be subject to public reporting via a tape mechanism, as well as record keeping requirements to a regulated trade repository. Importantly any trade that falls outside of the regulated exchange and central clearing infrastructure should be subject to robust risk-based capital regimes that appropriately reflect the risk to all counterparties in these transactions.

A number of different bills have been discussed in Congress to address the identified deficiencies of the OTC derivatives market, some of which appear to be designed to force certain prescriptive solutions on the market. Some of these proposals include requiring that all OTC derivatives, standardized and non-standardized, be traded on an exchange in a central order book or requiring that all OTC derivatives be cleared through a CFTC-registered clearing organization regardless of the liquidity of the underlying instrument or prohibiting certain participants from acting in certain markets.

As it undertakes the task of developing a regulatory regime for OTC derivatives, we encourage the subcommittee to strike a balance similar to that suggested in Secretary Geithner's letter. NYSE Euronext believes it would be unhelpful to impose inflexible solutions that would mandate specific market structures in either execution or clearing. This could prove disruptive to markets, introduce unacceptable risks into central counterparties, and could have the unintended effect of designating winners and losers amongst

exchanges and clearing organizations and thereby decreasing needed competition.

Consistent with Secretary Geithner's proposed framework, we believe it would be appropriate for Congress to provide this newly regulated market and the authorities that will oversee it sufficient flexibility to evolve and adjust over time. We believe that the most efficient way to determine optimal market structure for the wide variety of OTC derivative products is to let market users and regulators decide as market conditions dictate.

On behalf of NYSE Euronext, I want to thank the subcommittee for the opportunity to appear before you today. We look forward to working with you to implement an effective regulatory regime for OTC derivatives.

Thank you.

[The prepared statement of Mr. Callahan can be found on page 81 of the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Callahan.

And now we will hear from Terrence A. Duffy, executive chairman, CME Group, Incorporated. Mr. Duffy?

STATEMENT OF TERRENCE A. DUFFY, EXECUTIVE CHAIRMAN, CME GROUP, INC.

Mr. DUFFY. Thank you, Chairman Kanjorski, for this opportunity to present our views on effective regulation of the OTC derivatives market.

Treasury Secretary Geithner's May 9, 2009, letter to Senator Harry Reid outlined the Administration's plan for regulatory reform of the financial services sector. His plan proposed increased regulation of credit default swaps and other OTC derivatives.

This committee posed seven questions for our consideration this morning. We agree with many of Secretary Geithner's proposals. For example, we support position reporting for OTC derivatives and agree that enhanced price transparency across the entire market is essential to quantify and control risk. We believe, however, that the measure chosen to achieve these ends should be fine-tuned to avoid adverse consequences for U.S. markets.

We are concerned that legislation mandating the clearing of all OTC transactions could well induce certain market participants to transfer this business offshore, resulting in significant loss of U.S. futures business.

By reducing liquidity on U.S. exchanges, this would undermine the Congress' attempt to establish greater transparency, price discovery, and risk management of U.S. markets.

We applaud the Administration's efforts to enhance transparency, stability, integrity, efficiency, and fairness in all markets, but we believe that with slight modifications to the proposal outlined by Secretary Geithner, and the inclusion of a few additional measures would complement the Administration's efforts.

We have responded to your specific questions at length in our written testimony. Let me offer a brief summary of our responses:

First, we agree with the informed consensus that the financial crisis was attributable in part to the lack of regulation in the over-the-counter market, which was not subject to appropriate disclosure and risk management techniques.

Second, clearing should be offered to the OTC market in a form that makes a compelling alternative to the current model. Central counterparty clearing offers a well-tested method to monitor and collateralize risk on a current basis, reducing systemic risk and enhancing fairness for all participants.

Third, we are not in favor of government-mandated clearing even though we are strong proponents of the benefits of central counterparty clearing. Central counterparty clearing serves as an effective means to collect and provide timely information to regulators. It also reduces systemic risk imposed on the financial system by unregulated, bilateral OTC transactions.

Nevertheless, rather than compel clearing of all OTC transactions, we believe appropriate incentives should be put in place. The incentives could be in the form of reporting and capital charges for uncleared OTC positions and reduce capital charges for cleared OTC positions. We believe they would contribute both to the transparency and the reduction of systemic risks.

Fourth, obviously, we are strong proponents of the benefits of exchange trading of derivatives, but we are also realists on the issue of whether exchanges can generate sufficient liquidity to make exchange trading efficient and economical for our customers. We are concerned that government-mandated exchange trading will be a massive waste of resources and capital.

Fifth, in our view, electronic trading offers many benefits. It levels the playing field. It enhances price transparency and liquidity. It speeds execution and strengthens processing and eliminates any classes of errors of unmatched trades. Overall, it is an enormous benefit to the market and to our customers. Electronic trading when coupled with our intelligent audit and compliance programs allows us to better monitor our markets for fraud and manipulation. It also gives us the tools to effectively prosecute anyone foolish enough to engage in misconduct in a forum with a perfect audit trail and a highly skilled enforcement staff.

Sixth, we believe that there is an appropriate balance between price discovery and liquidity that is effectively controlled by the current procedures to police excessive speculation. Regulated future markets and the CFTC have the means and the will to limit speculation that distorts prices or the movement of commodities in interstate commerce.

Seventh, we operate trading systems in a clearinghouse in which every bid and offer, as well as every completed transaction, is instantaneously documented. In addition, those records are preserved for an extended period of time.

We hope that our views on regulating the OTC market will be given significant weight based on our record and experience, and I look forward to answering your questions. Thank you, sir.

[The prepared statement of Mr. Duffy can be found on page 132 of the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Duffy.

And next we will have Mr. Christopher Edmonds, chief executive officer, International Derivatives Clearing Group. Mr. Edmonds?

STATEMENT OF CHRISTOPHER EDMONDS, CHIEF EXECUTIVE OFFICER, INTERNATIONAL DERIVATIVES CLEARING GROUP, LLC

Mr. EDMONDS. Good afternoon, Chairman Kanjorski, and members of the subcommittee. I appreciate the opportunity to testify today on behalf of the International Derivatives Clearing Group. IDCG is an independently managed, majority-owned subsidiary of the NASDAQ OMX Group. IDCG is a CFDC-regulated clearinghouse, offering interest rate futures contracts, which are economically equivalent to the over-the-counter interest rate swap contracts prevalent today.

The effective regulation of the over-the-counter derivatives market is essential to the recovery of our financial markets. And this is a very complicated area that is easy to get lost in. Let me summarize by emphasizing four points that go to the heart of the debate:

First, central clearing dramatically reduces systemic risk. Second, if we do not make fundamental changes in the structure of these markets, we will not only tragically miss an opportunity that may never come again, but we will also run the risk of repeating the same mistakes. Half measures will not work. Specifically, access to central clearing should be open and conflict free. Third, the cost of the current system should not be understated. The cost of all counterparties posting accurate, risk-based margins pales in comparison to the costs we are incurring today for our flawed system. Finally, the benefits of central clearing, if done correctly, do open access and maximum transparency will benefit all users of these instruments and allow these financial instruments to play the role they were designed to play, the efficient management of risk, and the facilitation of market liquidity.

While there is debate around the use of central counterparties, it is important to recognize not all central counterparties are the same. Ultimately, market competition will determine the commercial winners, but I encourage members of this subcommittee to stay focused on one simple point: All participants must play by exactly the same rules. This in turn increases the number of participants, which reduces systemic risk. Central clearing gathers strength from greater transparency and more competition. This is in contrast to the current bilateral world where all parties are only as strong as the weakest link in the chain.

There has been much fanfare over the handling of the Lehman default. While it is true some counterparties were part of a system that provided protection, this system was far more of a club than a systemic solution. The Federal Home Loan Bank system in Jefferson County, Alabama, and the New York Giants stadium are examples of end users who suffered losses in the hundreds of millions of dollars. The current system simply failed the most critical component of user, the end user.

These are real world examples of why new regulation needs to focus on all eligible market participants. This is the foundation of the all to all concept. As some have continued to confuse the true cost of clearing services, IDCG began to offer what we call "shadow clearing." This is a way users can quantify the actual cost of mov-

ing existing portfolios into our central counterparty environment. We now have over $250 billion in shadow clearing.

Our data has shown significant concentration risk in the interest rate swap world. In fact, two of the largest four participants were required to raise significant capital as a result of the recently completed stress test. Just last week, before this same subcommittee, Federal Housing Finance Agency Director James Lockhart acknowledged a concentration of counterparties during the past year, along with the deterioration in the quality of some institutions has resulted in Fannie Mae, Freddie Mac and the Federal Home Loan Banks consolidating their derivatives activities among fewer counterparties. We must reverse this trend or we will continue to foster the development of institutions too-large-to-fail.

IDCG provides a private industry response to the current financial crisis and our mission has never been more relevant than in today's difficult economic environment. Today's financial system is not equal. The rules of engagement are not transparent, and there are significant barriers to innovation unless the work of this committee, Congress, the Administration, and all of the participants in the debate yields a system that protects all eligible market participants in a manner consistent with the largest participants, the system will fail again.

Mr. Chairman, thank you for the opportunity to appear as a witness today, and I am happy to answer any questions.

[The prepared statement of Mr. Edmonds can be found on page 139 of the appendix.]

Chairman KANJORSKI. Thank you very much, Mr. Edmonds.

And next we have Mr. Jeffrey Sprecher, chief executive officer, IntercontinentalExchange, Incorporated. Mr. Sprecher?

STATEMENT OF JEFFREY S. SPRECHER, CHIEF EXECUTIVE OFFICER, INTERCONTINENTALEXCHANGE, INC.

Mr. SPRECHER. Chairman Kanjorski, Ranking Member Garrett, and members of the subcommittee, my name is Jeff Sprecher, and I am the chairman and chief executive officer of IntercontinentalExchange, which is also known by our New York Stock Exchange ticker symbol as ICE.

I very much appreciate the opportunity to appear before you today to testify on the over-the-counter derivatives regulation. And, Congressman Scott, thank you for your kind introduction earlier today.

In the mid-1990's, I was a power plant developer in California, and I witnessed the State's challenge in launching a market for electricity. Problems arose from a complex market design and partial deregulation, and I was convinced that there was a more efficient and transparent way to manage risks in the wholesale markets for electric power and natural gas. Therefore, in 1997, I purchased a small energy trading platform that was located in Atlanta, and I formed ICE. The ICE over-the-counter platform was designed to bridge a void that existed between a bilateral, voice-brokered over-the-counter market, which were opaque, and open up futures exchanges, which were inaccessible or they lacked products that were needed to hedge power markets.

ICE has grown substantially over the past decade, and we now own three regulated futures exchanges and five regulated clearinghouses. Yet, we still continue to offer the over-the-counter processing along with futures markets.

In discussing the need for the over-the-counter regulation, it is important to understand the size of the over-the-counter derivatives market and their importance to the health of the U.S. economy.

In this current credit crisis, derivatives have been commonly described as complex, financially engineered products transacted between large banks. However, in reality, an over-the-counter derivative can encompass anything from a promise of delivery in the future between a farmer and his grain elevator, to a uniquely structured instrument, like an exotic option, and much of the Nation's risk management occurs in between these two extremes.

Derivatives are not confined to large corporations. Small utilities, farmers, manufacturing companies and municipalities all use derivatives to hedge their risks. Providing clearing, electronic execution and trade processing are core to ICE's business model. As such, my company would clearly stand to benefit from legislation that required all derivatives to be traded and cleared on an exchange.

However, forcing all OTC derivatives onto an exchange would likely have many negative and unintended consequences for our markets as a whole. In derivative markets, clearing and exchange trading are separate concepts. At its core, exchange trading is a service that offers order matching to market participants. Listing a contract on an exchange does not necessarily mean it will have better price discovery. Exchange trading works for highly liquid products, such as the Russell 2000 or standardized commodity contracts that appeal to a whole host of a broad set of market participants.

However, for many other markets, exchange trading is not the best solution as the market may be illiquid, with very wide bid offer spreads, leading to poor or misleading price signals. Nonetheless, these illiquid products can still offer value to hedgers and thus they have a place in the over-the-counter deliberative market.

Turning to clearing, this technique gracefully reduces counterparty and systemic risk in markets where you have standardized contracts. However, forcing unstandardized contracts into a clearinghouse could actually increase market risk. Where the market depth is poor or the cost of contracts are not accurate for price discovery, it is essential that the clearinghouse be operated so that it can see truly discovered value. So while ICE certainly supports clearing as much standardized product as is possible, there will always be products which are either non-standard nor sufficiently liquid for clearing to be practical, economic or even necessary. Firms dealing in these derivatives should nonetheless have to report them to regulators so that regulators have a clear and a total view of the market.

ICE has been a proponent of appropriate regulatory oversights of markets and as an operator of global futures and over-the-counter markets, we know the importance of ensuring the utmost confidence, which regulatory oversight contributes to.

To that end, we have continuously worked with regulatory bodies in the United States and abroad to ensure that they have access to relevant information that is available from ICE regarding trading activity in our markets.

We have also worked closely with Congress and regulators to address the evolving oversight challenges that are presented by complex derivatives. We continue to work cooperatively to seek solutions that promote the best marketplace possible.

Mr. Chairman, thank you for the opportunity to share our views with you, and I will be happy to answer any questions that you may have.

[The prepared statement of Mr. Sprecher can be found on page 182 of the appendix.]

Chairman KANJORSKI. Thank you, Mr. Sprecher.

We will now and lastly hear from Mr. Larry Thompson, managing director and general counsel, Depository Trust and Clearing Corporation. Mr. Thompson?

STATEMENT OF LARRY E. THOMPSON, MANAGING DIRECTOR AND GENERAL COUNSEL, THE DEPOSITORY TRUST & CLEARING CORPORATION (DTCC)

Mr. LARRY THOMPSON. Thank you, Chairman Kanjorski, and members of the subcommittee. I am Larry Thompson, general counsel for the Depository Trust and Clearing Corporation, better known as DTCC.

DTCC brings an unique perspective to your discussion as a primary infrastructure organization serving the U.S. capital markets with a 36-year history of bringing safety, soundness, risk mitigation, and transparency to our financial markets. Last year, DTCC cleared and settled in U.S. dollars $1.88 quadrillion in securities transactions across all multiple asset classes. That is the equivalent of turning over the U.S. GDP every 3 days.

As an example of DTCC's contribution to safety and soundness, following the Lehman bankruptcy last year, DTCC played a significant role in unwinding over $500 billion in open trading positions from trades in equities, muni bonds, mortgage-backed and U.S. Government securities without any loss to DTCC, any of its members or to the industry and obviously to the U.S. taxpayer.

Today, I would like to share some insights gained from the financial crisis of the past year and emphasize one fundamental policy point: Fragmentation of data in the financial industry can impede the ability of regulators to protect investors and the integrity of the financial services system as a whole. These core policy goals are advanced when information on trades are held on a centralized basis.

We believe maintaining a single trade repository for OTC derivatives contracts is an essential element of the safety and soundness for two primary reasons: First, it helps assist regulators in assessing systemic risk, thereby protecting consumers and financial markets. Second, as a practical matter, it provides the ability from a central vantage point to identify the obligations of trading parties, which can speed the resolution of these positions in the event of a firm failure. However, there is no absolute assurance a single trade repository for OTC derivatives will be retained unless that public policy objective is expressed in law.

While DTCC supports the role of central counterparties, CCP's, in OTC derivatives trading to support trade guarantees, CCP's do not obviate the need to retain the full details on the underlying trading positions in a central trade repository to support regulatory oversight and transparency in the market.

DTCC's primary mission is to protect and mitigate risks for its members and to safeguard the integrity of the U.S. financial system. We launched the trade information warehouse in November 2006 to provide an automated repository to house all credit default swaps contracts. And, during 2007, working with the industry, we updated the warehouse with information on $2.2 million outstanding credit default swaps contracts. And our DTCC deriv/serv matching engine is now supplying to the warehouse more than 41,000 trade sides daily. Today, our trade information warehouse is the only comprehensive repository of OTC derivatives activity in the world.

Since last year, DTCC has seamlessly processed, or is processing through the warehouse, numerous credit events, including Lehman, Washington Mutual, as well as the conservatorships involving Fannie Mae and Freddie Mac.

DTCC supports the public policy goals articulated in Secretary Geithner's letter to the House and Senate leadership on a need to promote transparency in the OTC marketplace. However, we are concerned that regulatory calls to require the use of CCP solutions for standardized derivatives transactions could mislead some to think that this step alone would be sufficient to provide a complete cure for the problem.

Our trade information warehouse connects and services 1,400 market participants, providing a central operation infrastructure, covering 95 percent of all current credit derivatives trades. This trade repository is designed to be, and we recommend, that it be mandated to extend and include other OTC derivatives classes. A regulator charged with overseeing the financial markets from a systemic risk perspective needs a comprehensive view of where the risks and exposures lay to provide an advance warning to any problems that could jeopardize the stability of the system. Should there be a firm failure, knowing the underlying position of multiple transactions in a timely manner will be significant in providing transparency to regulators and in protecting confidence in the market itself. Therefore, we believe the role of having a central repository should be reinforced as a matter of public policy by Congress.

We appreciate your time today, and I would be happy to respond to your questions.

[The prepared statement of Mr. Larry Thompson can be found on page 195 of the appendix.]

Chairman KANJORSKI. Well, thank you very much, gentlemen. As you can see, this is one of the most exciting issues to come before the Congress and that is why the exceptional turnout. Maybe that is the reason why we have not had the legislation move along a lot faster.

[laughter]

Chairman KANJORSKI. But I have just a few questions myself before I recognize my ranking member. Mr. Sprecher, you talked

about the clearinghouse operation, I was interested, your exchanges, are they for-profit owned or are they not-for-profit?

Mr. SPRECHER. They are for-profit, and we are a New York Stock Exchange public company.

Chairman KANJORSKI. And who is your regulator, the actual exchanges?

Mr. SPRECHER. Well, we have three regulated futures exchanges, so one is regulated here in the United States by the CFTC, one is regulated in Canada by a provincial regulator and one is regulated in Europe by the London FSA. We have five regulated clearinghouses, two are regulated in the United States by the CFTC, one that is handling credit default swaps is regulated in the United States by the New York Fed as a trust bank. One is regulated by a provincial regulator in Canada and one is regulated by the Financial Services Authority in the UK. So that is the world I live in.

Chairman KANJORSKI. I myself had some doubts about whether or not we should have had some of the major exchanges change from not-for-profit exchanges to for-profit. I anticipate there is a great temptation out there to use exchanges for various and sundry purposes that could constitute a scandal. That has not happened yet, but I am not certain it will not happen some time in the future. What provisions have you taken to make sure that will not happen on your three exchanges?

Mr. SPRECHER. You have an interesting thought about this because one of the things that has happened in the world as we went from mutualized organizations that were memberships to public companies, which many of us represent, and when that happens, you sometimes disconnect from the interest of your members because they no longer are your bosses. And so all of us that run exchanges have a delicate balance, which is trying to be—act as a neutral counterparty and meet the needs of our members but still be beholden to stockholders and regulators. And so far I think it has worked quite well and it has created a lot of value within the exchange community but nonetheless it is incumbent on managers like myself to continue to poll the market and make sure we are serving the needs of the ultimate end user.

Chairman KANJORSKI. You said you traded on the New York Stock Exchange. Does that mean that I could buy a controlling interest in any of your exchanges by purchasing stock on the exchange?

Mr. SPRECHER. Technically, yes.

Chairman KANJORSKI. So that if I wanted to invade the United States rather than doing it militarily, I could do it economically by taking control of your exchanges and then just closing them?

Mr. SPRECHER. You would have to get through Senator Schumer but otherwise, yes.

Chairman KANJORSKI. Charlie is a good man but he is not everywhere.

Mr. DUFFY. Mr. Chairman?

Chairman KANJORSKI. Yes?

Mr. DUFFY. The CME Group is the largest publicly-traded exchange in the world today, and you cannot just come in here and take over a U.S. exchange. We have what is called a "poison pill,"

so anything over 15 percent ownership, you would be technically diluted down in value, so there is no way you could come in here and just buy a U.S. exchange that is listed. We are also a public company.

Chairman KANJORSKI. So you do not think there is any way we could construct hidden trusts or other organizations that if I were representing the oil interests of the world, that I could come in and take control of your exchange?

Mr. DUFFY. No, I do not.

Chairman KANJORSKI. You are a real optimist. I think that someone could, by convoluted methodologies of using trusts, etc., you could do it in a successful way and never be detected unless you were to open up all the trust operations in the country, which obviously we do not do. I am not sure why we do not do it, maybe we need a clearinghouse for trusts to find out who really owns things. Anyway, that is another issue for another day.

Obviously, you all agree that there is a role for Congress to play in the derivative market. I am curious, I asked a question of the prior panel, is there any of you who feel absolutely that operations are occurring in such a way in the derivative area that there is no role or need for Congress to take action or for the government to provide for regulation? Is there anyone who feels we are moving on the course and should stay there as the present law constitutes us to do?

Mr. DUFFY. I will just say, sir, we have been on the record since the Modernization Act of 2000, that the loophole of 2(h)(3) should be eliminated, that there was going to be a problem with product. So here in the last panel, they asked, did anybody foresee this coming or if they would admit it. We are on record as saying we saw this coming and there was going to be problems with these unregulated markets. So, I think government has a role in these marketplaces, there is an integrity to them but at the same time, we are not talking about huge regulation for the over-the-counter market, we are talking about a few different things.

Chairman KANJORSKI. But you definitely see a need for us to act now in some regulatory capacity, is that correct?

Mr. DUFFY. I do.

Mr. EDMONDS. I would just add to that I do not believe that you can continue the evolution that the market demands at the moment as these instruments continue to be developed and risk management tools continue to be used over time without an effective involvement from organizations and committees like this one. It will not reach the point of confidence the market can accept without involvement from the government.

Chairman KANJORSKI. Why did the market fail, and this is open to any one of you who want to take it on, in terms of AIG for instance? Obviously, their counterparties positions were way outside their capacity to perform because they lacked the reserves to do that. Why did not the parties that were dealing with them see that and have the market in itself react or did they not know what their counterparty positions were and therefore the limitations they had or were they planning on the fact that there would be a too-large-to-fail resolve and that in fact the government was going to stand

in their position, so there was not any risk in finding out their due diligence, pursuing due diligence as to their capacity to perform?

Mr. DUFFY. I will just say that I think that they had a huge bet that the housing market would never go down. I do not think they ever believed that that asset would go down, and they could leverage it as many times over as they want. And they were undercapitalized to write all these contracts. And when the market turned, you talk about an illiquid market, the housing market might be the most illiquid market in the world, so there is no one to take over the exposures.

Chairman KANJORSKI. But you said you saw the risk?

Mr. DUFFY. Pardon me?

Chairman KANJORSKI. You said you saw the risk.

Mr. DUFFY. We talked about the elimination of 2(h)(3), which includes credit default swaps, which was eliminated from the exchange. We said that they should be regulated back in 2000, and we said that in 2002 and in 2004 and as little as a year ago. That is what I was referring to.

Chairman KANJORSKI. But you did not see the failure coming?

Mr. DUFFY. I did not know what the leverage balance sheet of AIG was, sir, no.

Chairman KANJORSKI. Well, that would have been interesting if we had had a clearinghouse operation going, like Mr. Thompson is saying, everybody in the world could have examined to see what their exposure was, is not that correct? And would that have afforded the opportunity for the market itself to do the corrective action and not accept them as a counterparty?

Mr. EDMONDS. Well, it certainly would have highlighted the issue much earlier, so the default you dealt with or we continue to deal with in the fallout from the AIG default still a fairly—well, obviously, a very significant size. Well, had you had those mechanisms in place early on, you would have been able to detect that before it spiraled to that level. I am not going to say there would not have been a default because there was certainly behavior there that you had to deal with but the size of the default may have been mitigated far before it got to $170 billion of taxpayer money.

Mr. LARRY THOMPSON. I think, Mr. Chairman, in fairness—

Chairman KANJORSKI. Yes?

Mr. LARRY THOMPSON. I do not think anybody has actually done a real study on the causes of the AIG failure. It could have been due to a number of reasons. One, it could be that the counterparties did not know what their full exposure was, they are relying totally on the fact that it was a triple A rated company and therefore did not think that they needed to take the same margin requirements. Some of them we know did hedge some of their positions though with AIG. We also know now that the particular regulator, who did regulate that particular section of AIG, perhaps did not go in and do the right kind of examinations. So I think what you had called for earlier in the first panel, which is really an examination of AIG to see what occurred, should occur before we begin to speculate as to what went wrong there.

Obviously, we believe that having all of those contracts in one central location where regulators could have gone in, could have looked at what the positions were, would have been something that

would have been something that would have been very good from a regulatory standpoint. Thank you.

Chairman KANJORSKI. I appreciate that, Mr. Thompson, but is it possible that we should recognize that perhaps the capacity of government regulators because of salary and other limitations in the field are really not adequate to make the type of analysis and regulatory positions that occur in industry because of the lopsided effect of salary and competency and size?

Mr. LARRY THOMPSON. You hit upon a very excellent point, which is that one of the things that we have to do as part of reviewing the whole issue of what regulatory reform means, does it mean looking at whether the regulators have the right skill sets? Do they have the right band width to regulate the industries that they should be looking at? Is the pay comparable to retain seasoned veterans to look at those particular issues? I think all of those are very good things that should be approached and looked at by this Congress.

Chairman KANJORSKI. Well, I just want to bring as a matter of fact that point up, in the Federal Home Loan Bank system, Senator Graham had been successful several years ago before he left the Senate of restricting the salaries and, of course, I have been very active with the Federal Home Loan Bank system because it fascinates me in a way, how it is a cooperative working with the private sector. And they came to me and said, "Well, what we have decided is we would like to specialize," that is when we had appointments by the President of the members of the board, and they wanted to make a requirement that each board have at least one specialist in derivatives because they found it very difficult dealing with derivatives. And so the question that was posed in my office in a debate at that time was how difficult it would be to define 12 specialists who were willing to work for $19,000 a year, which was the limitation of salary on a director to the Federal Home Loan Bank Board.

Now, maybe some people who would be watching this hearing would say, "Well, why not?" But you and I know that specialists in the derivative field generally talk about starting salaries in excess of seven figures, going on up. And our problem is we have no way in government to match that type of salary, so how do we go about attracting the type of mathematical talent that is necessary to protect the hedging that occurs in these transactions?

Mr. LARRY THOMPSON. Well, one way may be to use academia. The one thing that obviously academia would be able to do, professors love to get information and study it, to write their papers and to publish things. So, as a resource, and it is just a suggestion, there may be a way of getting resources through other neutral sources, even though they have an interest in publishing the information they gather as opposed to making it a government resource if it were the work of a government salaried employee. It is just a suggestion.

Chairman KANJORSKI. I have exceeded my time, and I have been lenient with myself because considering we have a such a huge number of members here, I thought maybe we could by unanimous consent extend our questioning to 10 minutes each. Is there any ob-

jection to that? There being none, let me move and recognize Mr. Garrett for 10 minutes.

Mr. GARRETT. Well, I may just use a portion of that.

Chairman KANJORSKI. That is okay, you can hand it back. You can give it as a present.

Mr. GARRETT. I will yield to my colleague here. Thank you, gentlemen, for your testimony. I am taking a page or a comment out of the chairman's comment, and may be playing off comments of Mr. Edmonds as well, the idea of trying to find regulators to be able to do some of these things. Now, just the other day, I had lunch with a gentleman who is a CEO of a smaller international company, an international company but a small one, not one of the big guys, and when we got into the aspects of the regulators coming in, he said, "Do you know how complicated it is within my own business for me to know exactly what is going on in my company and with my auditing departments and with my financial units in my company to have a clear picture or a snapshot, if you will, at any one point in time of how my company is doing?" He said when you talk about the regulators, regardless of how well we pay them, when they come in and try to take a look at it, we may be going down the wrong proverbial road if we ever really want to think that we can solve some of these problems by bringing some people in on a short-term basis to examine the books proverbially and get a good snapshot out of it.

I know the chairman asked, I think it was the last panel, did any of you see this all coming and come back and tell us beforehand, and everybody sat mute, although I am sure some of them probably had some premonitions but just did not act on it. That same question could always be asked by that panel, and we have to be careful what we ask them because if they ever ask us that question, did we ever see any of this coming, and if we did, how come we did not say anything? Congress did not see a lot of it coming, otherwise the chairman and I would have stopped it. Some of it we did, some of it we did not, obviously with the GSEs.

But just on that last note, I guess, Mr. Edmonds, you were saying with regard to we cannot get to where we all need to be or where you would like to be unless Congress steps and does some of this, you probably have a little more rosy view of the good works that Congress can do in some of these areas in light of our past track record of not providing the appropriate, this is what you are talking about, not providing the appropriate regulation in the past in some of these areas. Hopefully, that we will be able to do so in the future. Do you want to comment on that?

Mr. EDMONDS. The issue at the end of the day that what Congress wants, I believe the answer to the question you fundamentally were asking the industry is what is something worth, whether you are talking about the salary of the regulator that is going to be there, but what is the value that you are going to receive for that? If we looked at the question of clearing across all of a number different products and asset classes at the end of today, there is some standard or accepted curve of what the value of an instrument is. We come to expect that as just it is going to be there as a constant. It is only when it is no longer a constant that we have a major issue in this predicament. And what we experienced over

the last year is we lost a constant. It was not a defined measure of value that the consensus of the market agreed upon. We spent a lot of time debating and a lot of time discussing data processes and how that process of determining what something is valued at impacts the marketplace.

So when you have the right folks in the right positions at the regulators, paid the right amount, and the values received or whether or not it is subcommittees like this and others within the government itself producing that function, we all have to agree at some point in time that fair value is worth "X," and when we lose that, we typically lose our way. I do believe, and my comment earlier was this is a point in time where I believe history says bodies as this one will step up and attempt to correct the show.

If you look at the energy markets in the earlier part of this decade, which is where my career began, you had people take advantage of that in the fall of Enron and the energy emergent sectors, and there were certain rules put into place that both Mr. Duffy and Mr. Sprecher have great businesses from today, and this is another point in time where I believe we have to stand up and do that for other asset classes. And I believe those are the questions you are asking the previous panel and the one that we sit before you today of where does it start and how far can we go without going too far.

Mr. GARRETT. Well, one of the proposals that's out there from CFTC Chairman Gensler was that he said in his proposal, "We need to protect the public from improper marketing practices." And I guess the one question that follows from that is that endemic in the system right now, we are talking about sophisticated firms that are out there, is improper marketing practices—you mentioned energy but is that something that is widespread in the industry. And if you put in mandates and what have you, a second part, and anybody can answer this, if you put in mandates to beyond exchanges and clearinghouses, is there a potential, and maybe not, maybe I am just not seeing this, exposing the average investor then to a higher risk at the end of the day?

Mr. EDMONDS. Well, I will start in response to that. Our solution and others that are represented up here, have a certain mechanism that is not going to go down to the retail investor. They are eligible commercial participants. But even with that, and that defines some level of sophistication of the user of these instruments. But even with that definition there, the rules of the game are not the same for all the different participants. And depending upon where you are or how you behave, in the previous panel, Mr. Murphy from 3M spent a lot of time talking about his business as a corporate, and they have a very defined function in how that works. But in the world I live in, interest rate swaps, that type of business only represents sub-10 percent of the marketplace. So the other 90 percent are not playing by the same rules. And I believe if you are going to get to that point of fair value, at some point in time you are going to have to have consensus on what the baseline is.

Mr. GARRETT. Thank you. Any other comments on that?

Mr. DUFFY. Well, what I think Mr. Gensler was referring to was some of the marketing practices that have gone on historically that have targeted some of the uninformed people who may be in a retirement area, such as California, Florida, and others, trying to tar-

get them to solicit them to trade foreign exchange product, promising them 60 percent gains in 60 days. And the problem, what happened with the CFTC, most of their budget, I think it was roughly 70 percent was the number, was going to police off exchange fraudulent activity. And I think that is what Mr. Gensler is referring to, that it has to stop. I mean they have to either police it or they are not going to police it but that is a big part of what their budget was going towards.

Mr. GARRETT. Can you stop that just by bringing it all on then?

Mr. DUFFY. Well, I think there are other issues that they have to deal with. A lot of this going over the Web, a lot of this is going over cold calls. How do they get these people? They show up at a bucket shop and the bucket shop has four kids who never had a job before in their lives, but yet they are the four principals of the firm. So the real guy that is taking the money is already to the next city or the next village. It is very difficult to police.

Mr. GARRETT. Right, and just one little question, Mr. Thompson, and if anybody else wants to. You were speaking when I came in, and I was watching you folks in the back room by the way, with regard to the repository facilities, how is this all envisioned as far as, I hate this word, but the granular aspect of it and the aggregation aspect of it, how much information is actually out there on the individual company and trade versus the aggregate aspect of it?

Mr. LARRY THOMPSON. We publish at the moment, once a week, 1,000 names, information on an aggregate basis in all of the indices. We do that on a public Web site that everyone has access to. We obviously give more granular information to regulators that would include position information by who is doing the trades. We also put trading information on an aggregate basis on our Web site, but we do give to regulators, including the Fed, the ECB, the FSA, very granular detail information as to what the positions are when they request it.

Mr. GARRETT. Okay, great, I appreciate the information. Thanks a lot, gentlemen.

Chairman KANJORSKI. The Chair recognizes Mr. Scott.

Mr. SCOTT. Thank you, Mr. Chairman. I might say that this is absolutely stunning in its scope of complexity and challenge but as we try to grasp or get our hands around this, to try to figure how we regulate it, I think it would be very helpful, Mr. Sprecher, if you might share with us the description of the day-to-day Federal regulation of your clearinghouse and whether or not you can come to the conclusion that the Federal regulation that you are currently under. And in your opening statement and your response to the chairman, you reiterated several layers of Federal regulation. It might be well for you to kind of give us kind of an overview as to how effective if, in your opinion, this regulation has been?

Mr. SPRECHER. Certainly. Well, we launched a credit default swap clearinghouse about 90 days ago and so far have done almost a trillion dollars worth of clearing in that market. And that particular clearinghouse is regulated by the New York Fed. First of all, we had a hard time—we wanted to be regulated and we had a hard time figuring out who should regulate us, there were some regulatory gaps in credit default swaps that I am sure many of you are aware of, and it did not look like it fell under the CFTC and

it did not look like a security that fell under the SEC. And ultimately in discussions with the Fed, it seemed appropriate to be under their jurisdiction, so we set up under the Fed, it is our first opportunity of working with the Fed. I am frankly very impressed with the quality of people that the Fed has. They are an amazing organization. They have a deep understanding of derivatives, and they are a very hands-on regulator. In fact today, they are doing I think their second audit of our clearinghouse, and we are only 90 days old, and I think that audit goes all week long.

But there are some regulatory voids that I think Secretary Geithner was trying to point out in his letter, things about how the FDIC would get involved in a wind up, for example, of a bank versus a clearinghouse, whether we would wind up the affairs or whether the Fed would be involved, so that there are some jurisdictional issues that we are trying to work out between agencies on a collaborative basis but ultimately I think Congress may have to step in and help dictate some of these.

Mr. SCOTT. Let me pursue just a moment if I may, I am reading your statement and just to clarify, you state that, "Clearing all over-the-counter derivatives and the trading of over-the-counter derivatives on a transparent electronic platform may provide additional risk management and potentially additional price transparency. However, forcing all over-the-counter derivatives to be cleared and traded on the exchange would likely have many unintended consequences." Can you give us a little clarity there? It seems as if you are saying on the one hand that it is good but on the other hand there are some bad things that will happen?

Mr. SPRECHER. Yes, this is the dilemma that we are all in here, which is we all—all of us here believe in open, transparent, predictable markets but you all trying to regulate everybody into one of those could have unintended consequences. One unintended consequence, for example, may be what a number of us have heard you talk about today, which is the flight of some of this business overseas. We have 12 members of our credit default swap clearinghouse. They are the largest holders of credit default swaps in the world, probably could hold at least 80 percent of the open positions in credit default swaps. Of the 12 members, only four of them are U.S. companies. The other members have come here because they ultimately believe that we need to do clearing. They ultimately believe that it will be better for the marketplace but was the case where through some regulatory prodding and cooperation with industry and the aftermath of this terrible credit crisis, there is some voluntary work. But I do not know that we can always depend that foreign companies will cooperate with U.S. regulation.

Mr. SCOTT. Mr. Duffy, I think you raised that point, and I asked that question earlier to the other panel because we really want to be I think very careful and judicious at what we do here. All of this is sort of new territory for us. Can you give us your rationale for your fears, you were pretty strong in your statements that we would lose business overseas. Would it be on overseas exchanges, would it be offshore accounts? Can you tell us exactly how we would lose overseas?

Mr. DUFFY. Well, I think Mr. Sprecher said it correctly, you have to look at a lot of these dealers, there are 12 large ones in the

United States, of which they have operations throughout the world, and they can pass their book from one place to another so the book truly just travels along through the time zones. And that is a concern because they cannot operate outside the United States. Our concern with that aspect is if you take that market off of the United States, that hurts the regulated U.S. futures exchanges because we are really the price discovery mechanism for a lot of the look-alike's that trade over-the-counter, so that is the price that they are looking to use for their risk management needs. So if we have less liquidity in the over-the-counter trading on our exchange, it is going to hurt the whole food chain. So it is a concern.

So when we look at—I will go back to maybe your other question about why we cannot take some of these trades in our clearinghouse, they are so customized in nature where a dealer may be out looking for the other side of a trade for not 6 milliseconds, like we trade at the CME Group, he may be out and be looking for 6 hours for the other side of his one particular trade for his one particular client. That is why it is very difficult. So we cannot bring those into our clearinghouse and assume the risk associated with those transactions at CME Group because we just do not have all the information we have on a standardized futures contract. But I guess that is a long way of saying is we are concerned about the liquidity, which is the direct result that the futures exchanges get from the over-the-counter market.

The last panel made a statement, they said that the OTC market is roughly several times larger than a regulated exchange model. It is 5 times larger. It is much larger than a regulated exchange model, so they work together. And the pricing comes from the exchange model.

Mr. SCOTT. All right, so you say moving forward, we need to separate the requirement if we mandate the clearinghouse and separate illiquid and unstandardized derivative contracts from liquid?

Mr. DUFFY. Yes, we do not believe that Congress should mandate it, we think they should use capital incentives for clearing and that is the way we approach this. We do not think a mandate is a good thing.

Mr. SCOTT. Well, if we did that, would we not be having some sort of loophole that could allow a repeat of what AIG and what Enron—

Mr. DUFFY. Well, I think you could have other reporting requirements that are not being put forth today for some of these transactions that would bring greater transparency to the regulator, whether it be the SEC, CFTC or the systemic risk regulator.

Mr. SCOTT. All right. Thank you, Mr. Chairman.

Chairman KANJORSKI. The gentleman from Illinois, Mr. Manzullo?

Mr. MANZULLO. Thank you, Mr. Chairman. Let me ask a very basic question. I believe that we would not be in this crisis that we are today if the subprime market had not gone sour and thus tainted the basis of the investments, which grew, the investments grow obviously exponentially through derivatives. Does that statement make sense or am I missing something on it?

Mr. SPRECHER. I believe it does. We develop in the world an unbelievable distribution system for syndicating risks with the idea

that people holding small amounts of risks, widely dispersed, is good risk management, but then we pump poison through that system and just kept pumping it and pumping and pumping it.

Mr. MANZULLO. Because the underlying investment was destined to go bad.

Mr. SPRECHER. Correct.

Mr. MANZULLO. You just cannot sell homes to people who cannot afford to make the first installment. In fact, the attorney general 2 years ago in Illinois, came out with her report on mortgages and she thought that the reason for the foreclosures were that people were not prepared to pay the increased rate on the variable rate mortgages when they begin to reset and then she shockingly found out that some people could not even make the first and second mortgage payments on the original mortgage. And the reason I ask that question is that what you gentleman do is to provide more liquidity in the market for good loans. That is really what you are doing, would that be correct?

Mr. EDMONDS. I think that it may be more accurate to say that what each of us respectively represent are mechanisms that provide better transparency, whether it be through clearing or through execution services, and that transparency results in an increased confidence. So the increased confidence you have in the next product that is highly correlated back at this standard thing that trades on an exchange or is cleared in a clearinghouse is enough for people to take that additional risk. And I think what Mr. Sprecher was trying—

Mr. MANZULLO. Because of confidence?

Mr. EDMONDS. Because that increased confidence exists but then what you have to begin to question is the correlation method between what everyone understands and accepts as something of value and this thing over here that is not something of value, that you do not know until it is too late.

Mr. MANZULLO. So the emphasis upon more regulation on the derivatives really has its genesis in the fact that the original investments themselves went sour, would that be correct?

Mr. LARRY THOMPSON. I think that is correct, that when you have an underlying instrument, such as the subprime that went south, that causes pressure all along. The one thing that the U.S. markets have done is has brought capital here to the United States, which has made us the broadest capital markets and one of the reasons why so many foreign companies want to come here and invest in Mr. Sprecher's company and be involved in it is because the U.S. capital markets have, one, been transparent; two, have been very liquid, and now what the worry is that has the regulation stayed in tune with what the instruments are all about and can they in fact continue to provide the same kind of transparency? I think they can. I think that the market participants have already started working in that regard. We, for instance, work very cooperatively with all of the members who are sitting here. We were instrumental in helping Mr. Sprecher's company set up their CCP because they pull the trades on a credit default swaps directly from the Depository Trust and Clearing Corporation.

Mr. MANZULLO. The follow-up question would be based upon our discussion, do you believe that any derivative product that can clear through a clearinghouse can also trade on an exchange?

Mr. LARRY THOMPSON. I think there is some confusion between clearing and what exchange traded means.

Mr. MANZULLO. Please?

Mr. LARRY THOMPSON. I think what we do at DTCC is clearing. We match the size of the trades. We actually net the transactions. We decide through our automated systems what the calculations are. We actually send those payments to CLS Bank to be settled. That is clearing. Trading is what takes place on an exchange when two sides who want to in fact do a trade decide to put it through. Clearing is all of the post-trade activity and making certain—

Mr. MANZULLO. Selling of accounts?

Mr. LARRY THOMPSON. Making certain the buyer got what he was supposed to get and the seller is getting the funds that he thought he or she should be getting. That is really part of the clearance system. And I think there has been a little confusion in today's discussion, both in the first panel and to some extent perhaps here, as to what clearance and settlement has meant here in the United States.

Mr. EDMONDS. I would add just a little bit to Mr. Thompson's comments that when we talk about clearing, the next component of the clearing is whether or not you provide credit mitigation. Mr. Thompson is incredibly correct in the fact that there are certain processes that you can use to clear information, in some contexts are you also removing that credit exposure between the counterparties. But to your earlier question, I think it is incredibly important that until you figure out how to clear it, it is very difficult to move to how can you trade it on an exchange. And there are plenty of asset classes that we have not yet put into an essentially cleared model.

Mr. DUFFY. Congressman, it is important to have liquidity to get price information so you can do risk management and clearing. That normally comes from trading and then it goes into the clearinghouse once the price has been established, and then the risk management process goes on until that position is liquidated.

I think that you can do some clearing without trading the product, but you need to have some relevant information from some of the providers that are out there today that are giving you price information as relates to this. There are margin requirements. There are twice daily mark-to-market requirements associated with clearing, so there are some things that are not a custom to the OTC world today that will burden additional costs but will also protect the taxpayer from additional liabilities like they had in the last several months.

Mr. MANZULLO. Thank you.

Mr. DUFFY. Thank you, sir.

Chairman KANJORSKI. Thank you, Mr. Manzullo. We could go on, but I know that on the Republican side of the aisle, they have a commitment for a 3:00 meeting, is that correct? So rather than holding our members here, we will wind this up. I just want to thank you first of all for appearing. Two, I asked the question of the first panel, would you all be willing to participate in giving us

your best thoughts as to what we can do eventually to do fair and effective regulation without smothering the derivative industry but on the other hand to avoid a reoccurrence of what has happened over the last several years. Is there anybody here who would not be willing to participate in the future in sort of an advisory role to accomplish that?

Mr. DUFFY. I applaud you for doing it, sir. I think it makes a tremendous amount of sense.

Chairman KANJORSKI. Well, we appreciate that. You can be of great assistance. And not only that, when mistakes are made in the future as a result of our legislation, we can point to the expert advisors and say that you all made the mistake.

[laughter]

Chairman KANJORSKI. No, we would appreciate it. I certainly invite it. There is nobody on the committee who has the expertise of the panels that we reviewed today, and if we can get your assistance in that, that will be extremely helpful over these next several months because that is the period of time in which some piece of legislation will occur.

And I may caution also to take advantage of reviewing the drafts of that legislation as it starts to circulate and do not hesitate using that thing called a telephone and call any member of the committee or myself and let us know what a dastardly thing we are doing by even considering one part of the piece of legislation. I am not guaranteeing that we will respond positively to your critiques, but we would like to hear your critiques on all those issues.

Mr. MANZULLO. Would the chairman yield for a second?

Chairman KANJORSKI. Sure, I will.

Mr. MANZULLO. I was just in Switzerland and met with the folks from FINRA. It took them 10 years, a 10-year study, in order to come up with their new regulatory body of all instruments of all categories of investments that might in their opinion come up with a systemic risk. And the first statement that came out of the mouth of the person with whom I spoke, he said, "Congressman," he said, "Whatever system of regulation that you come up with, you must give companies the ability to fail." He said, "If you do not do that, you will not have an investment system in your country."

And I want to commend you for the caution that I know that you are taking and also Chairman Frank for moving deliberately but very slowly into an area like this.

Chairman KANJORSKI. Well, we thank you. Of course, we are much swifter than this place.

Mr. SCOTT. Mr. Chairman, could you yield for one second, please?

Chairman KANJORSKI. Yes.

Mr. SCOTT. I would also like to just insert a word of caution. I want to certainly make the record reflect that I am very concerned about two major areas as we move forward because I think that we have received some good information from both of these panels that we want to make sure that we get our arms around, and that is the impact this has on foreign business going overseas. I think you made a good point that we need to be careful as we move forward on that. And the non-standardized derivatives as well, that we might have to do what Mr. Geithner suggested but to separate those two levels.

Chairman KANJORSKI. I appreciate that. Let me just add to the record because, Mr. Thompson, you made a statement, and I wanted to ask you the question, you said 95 percent, was that in volume or dollar value?

Mr. LARRY THOMPSON. That is in volume at this point. That is what our belief is in CDS, in credit default swaps that we are talking about.

Chairman KANJORSKI. Okay, they are equal, the dollar value and the volume?

Mr. LARRY THOMPSON. It is approximately but it is based on what the dealers have told us of what they are doing at this point.

Chairman KANJORSKI. Okay, very good. Thank you.

Mr. DUFFY. Mr. Chairman, if I just may for the record, Mr. Scott, I am sorry earlier when you asked about the difference between standard and customized products, my comment was that we are not supporting mandatory clearing of either one. I am a supporter of standardized OTC contracts being cleared through a regulated exchange, just so I was clear on that point, sir. I apologize if I was confusing earlier.

Chairman KANJORSKI. Well, very good. Again, I want to thank you very much for your testimony, gentlemen. And we will put you on our advisory committee and ask for anything that you can give.

Mr. DUFFY. Thank you, sir.

Chairman KANJORSKI. The Chair notes that some members may have additional questions for this panel which they may wish to submit in writing. Without objection, the hearing record will remain open for 30 days for members to submit written questions to these witnesses and to place their responses in the record.

The panel is thereby dismissed and this hearing is adjourned.

[Whereupon, at 2:50 p.m., the hearing was adjourned.]

A P P E N D I X

June 9, 2009

OPENING STATEMENT OF CHAIRMAN PAUL E. KANJORSKI

SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT SPONSORED ENTERPRISES

HEARING ON THE EFFECTIVE REGULATION OF THE OVER-THE-COUNTER DERIVATIVES MARKETS

JUNE 9, 2009

Today, we meet to consider another area of our capital markets woefully lacking in effective regulatory oversight: over-the-counter derivatives. Within less than three decades, over-the-counter derivatives have become a staggering $500 trillion market, in notional value. This market also has the potential to cause considerable harm. Last year, AIG infamously came crashing down because its lightly regulated Financial Products unit engaged in credit default swaps in the over-the-counter markets without holding sufficient capital to hedge the risks.

Since at least 1994, I have advocated for increased regulation of our derivatives markets. That year, I helped to introduce the Derivatives Safety and Soundness Supervision Act, which sought to enhance the supervision of the derivatives activities of financial institutions. In the years since then, I have backed other bills aimed at improving transparency in and enhancing the oversight of our derivatives markets.

While it has taken longer than I would have liked, I am pleased that we are now finally beginning to approach a consensus on these matters. The ongoing financial crisis has made it apparent to nearly everyone that we must move the over-the-counter derivatives market from one that takes place under the table to one that happens out in the open. In short, the time for common-sense regulation of this vast industry has arrived.

In a letter to Congress last month, the Treasury Secretary outlined his regulatory proposals for increasing transparency and efficiency in the derivatives markets, reducing risk to the overall financial system, and preventing market manipulation. I look forward to seeing the Administration's legislative language fleshing out its general principles in the very near future.

While the Agriculture Committee has shown considerable interest in this field, it is also important that our panel educate itself and act on these matters. The Administration's outline recognizes this reality. Together, I believe that both committees can take action to implement the broad concepts contained in the Treasury Secretary's plan. Moreover, we ought to move swiftly, yet deliberately, on these matters in order to improve flagging investor confidence.

As we move forward, we should remember that derivatives contracts are highly varied. Importantly, certain derivatives take the form of customized contracts that non-financial businesses employ to manage risk. By most estimates, more than 90 percent of Fortune 500 companies use over-the-counter derivatives, as do thousands of smaller businesses.

Clearly, some of these customized contracts cannot easily fit within a mandatory clearing or exchange trading regime. We therefore must find a delicate balance. Subjecting all contracts to mandatory exchange trading may cast too wide a net. Yet the clearing of most products – not all – through a central clearing entity seems appropriate and should not impose an undue burden on the affected parties. However, carving out too many exemptions as we tackle regulatory reform could create widespread economic harm in the long term.

At the same time, we cannot avoid the realization that products with unique features may require different treatment under whatever regulatory structure becomes adopted. On this point, I believe that the standardization of contracts where possible will promote smoother clearing. And clearing both opens a window through which regulators and market participants can keep a closer eye on this dark corner of the market and reduces the risks posed through the contracts collectively. The debate about the extent to which clearing becomes required is of particular importance today.

Even where clearing of contracts proves unfeasible, transparency can still exist. By mandating the collection of relevant data in a repository, we can help to ensure that regulators maintain access to useful trading information and perhaps detect warning signs of systemically risky transactions. Electronic trading also increases transparency. Further, electronic execution streamlines trading, minimizes mistakes, and enhances monitoring of the over-the-counter derivatives markets.

In sum, we have assembled a number of parties interested in and affected by the actions Congress will take in the months ahead. As we consider legislation to regulate in this field, their testimony can help guide us toward achieving the appropriate balance as we impose a sense of order in what until now has truly been the Wild West of the financial services world.

EMBARGOED UNTIL DELIVERY
Tuesday, June 09, 2009

Contact: Erica Elliott
Phone: 202-744-2693

Garrett Opening Statement for Financial Services Derivatives Hearing

(Washington, DC)– **Rep. Scott Garrett (R-NJ) released the following opening statement for today's House Financial Services Subcommittee on Capital Markets hearing entitled "The Effective Regulation of the Over-the-Counter Derivatives Markets":**

"Thank you Mr. Chairman and good morning to our witnesses.

"Today's hearing title is: "The Effective Regulation of the Over-the-Counter Derivatives Markets." That's important to keep in mind. The title is NOT, "The Most Politically Correct Sounding Regulation of Derivatives." Nor is it, "Let's Regulate the Heck out of the Derivatives Markets Because They've Been Demonized, and Let's Ignore all the Positive Contributions They Make to our Capital Markets and to Proper Risk Management."

"Unfortunately, with some of the regulatory proposals that have come forward in this area, you might think that was the approach that was being taken.

"94% of the 500 largest global companies use derivatives to manage risk. Congress, therefore, needs to tread carefully as it looks at regulatory options for these markets. Over-regulation or improper regulation that might sound good politically could have major unintended negative consequences, not just for our financial markets, but for our broader economy.

"Rather than reducing risk, poor regulatory "reform" could exacerbate it.

"Before we go any further, it's important to remember that derivatives did not cause our financial difficulties. In fact, they should be seen more as a symptom of the underlying crisis, rather than a reason for it.

"While our overall financial services regulatory structure can be improved, it is important to preserve and protect the important benefits these financial contracts provide for American businesses. Derivative products provide firms with the ability to minimize risk – this obviously benefits individual firms, but it also benefits our broader markets as well as individual consumers by protecting against food and energy price spikes, for example.

"As members of Congress consider reform proposals, we must not be overwhelmed by the fact that one high profile financial institution, AIG, made a bad investment decision, using derivatives to guarantee mortgages that went sour. We must also keep in mind that this occurred while AIG was under the supervision of its regulator, the Office of Thrift Supervision, and was part of the broader regulatory failure in the housing finance sector.

"Greater expertise in some cases is required at the functional regulator level for derivatives dealers, but AIGFP WAS a regulated entity. And the AIG case is a reminder that regulatory failure contributed to our financial crisis as much as anything.

"Furthermore, the vast majority of exposure in the CDS market, for instance, is contained within the already heavily-regulated banking sector. Arguably everything is in place already for regulators to appropriately regulate the bulk of this market that is dominated by a small number of dealers. Regulators already have oversight responsibilities to ensure firms are taking appropriate risks and to set proper capital levels. The power is there. Regulators, however, need to do their jobs.

"When there have been credit events, and there have been a number of notable ones over the last year, with the Lehman failure perhaps the most significant, each event has been handled in a very orderly fashion by the existing OTC infrastructure.

"As I look at some of the particular regulatory ideas that have been put forward, I am persuaded that central counterparties and clearinghouses hold promise, but I am very hesitant to go so far as to say that there should be mandatory central clearing for so-called "standardized products".

"The private sector has made significant progress in a relatively short period of time toward having multiple central clearinghouses for various derivatives markets. Having central clearing available will provide incentives for parties to participate in these facilities. Introducing the concept of mandatory participation is where you enter into the realm of unintended consequences.

"Inappropriate mandating of central clearing will limit the ability of end-users to properly manage their risk.

"Proposals to ban so-called "naked swaps" also are concerning. Again, it's important that legislators understand the significant negative consequences that will arise if such a proposal actually was enacted.

"The participants and infrastructure providers in the OTC markets have accomplished much in recent years to provide stability – from the ISDA Master Agreement to the recent so-called "Big Bang Protocol", to ongoing efforts to provide a more robust infrastructure for these products.

"I look forward to continued progress being made in regards to greater coordination between sell-side and buy-side participants as private sector efforts progress to increase efficiency and transparency and reduce risks in the OTC derivatives business.

"As Congress pushes forward with further regulation in these markets, we need to guard against unnecessary and overly burdensome regulations that might cause markets to move overseas or that

would hinder or prohibit firms from providing themselves with the superior risk management techniques that are so widely employed today and that could be enhanced by future innovations."

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Statement of Thomas F. Callahan
Executive Vice President
NYSE Euronext

Before the House Financial Services Committee
Subcommittee on Capital Markets, Insurance
and Government Sponsored Enterprises

June 9, 2009

Chairman Kanjorski, Ranking Member Garrett, members of the Subcommittee. My name is Thomas F. Callahan, and I am an Executive Vice President and Head of US Futures for NYSE Euronext. I am pleased to appear today on behalf of NYSE Euronext and its affiliated exchanges as the Subcommittee considers possible amendments to the various federal laws that affect over-the-counter derivatives transactions.

NYSE Euronext operates one of the world's largest and most liquid exchange groups, bringing together seven cash equities exchanges in five countries and seven derivatives exchanges. In the United States, we operate the New York Stock Exchange, NYSE Arca, NYSE Amex, and NYSE Liffe US. In Europe, we operate five European-based exchanges that comprise Euronext — the Paris, Amsterdam, Brussels and Lisbon stock exchanges, as well as the NYSE Liffe derivatives markets in London, Paris, Amsterdam, Brussels and Lisbon. Moreover, we will shortly begin providing clearing for our London derivatives market, having received approval in principle from the United Kingdom's Financial Services Authority in late May to launch NYSE Liffe Clearing. We also provide technology to more than a dozen cash and derivatives exchanges throughout the world. NYSE Euronext's geographic and product diversity has informed our views on the principal issues we are discussing with you today.

NYSE Euronext supports appropriate regulation of OTC derivatives

NYSE Euronext has a strong interest in supporting the appropriate regulation of OTC derivatives transactions, the dealers that sell them and markets they serve. In coordination with LCH.Clearnet Ltd., which is both a recognized clearing house in the UK and a derivatives clearing organization registered with the Commodity Futures Trading Commission ("CFTC"), NYSE Liffe has received temporary exemptive relief from the Securities and Exchange Commission ("SEC") to provide clearing services for credit default swaps. (This relief expires in September.) NYSE Liffe Clearing also anticipates offering clearing services for OTC derivatives. Further, to the extent that OTC derivatives are required to be traded on an exchange, NYSE Liffe expects to list such products for trading.

As important, our larger cash equity and derivatives exchange members have affiliates that are OTC derivatives dealers. As we learned from the bankruptcy of Lehman Brothers Holdings, the failure of an OTC derivatives dealer will have collateral

consequences for its regulated affiliates, even when those latter entities are properly capitalized and have no direct exposure to OTC derivatives. Finally, we are aware that a number of our listed companies use OTC derivatives to manage their interest rate risk and otherwise hedge obligations incurred in connection with the conduct of their business. It is essential that these companies have confidence both in the integrity of the transactions they enter into and the ability of their counterparties to perform their financial obligations. An appropriate regulatory regime for OTC derivatives is a necessary element in restoring and retaining this confidence.

NYSE Euronext supports the balanced approach to OTC derivatives regulation advanced by Secretary Geithner and Chairmen Schapiro and Gensler

We strongly support the proposed framework for the regulation of OTC derivatives set forth in Treasury Secretary Geithner's May 13 letter to the Congressional leadership. We believe the nuanced view that Secretary Geithner, in coordination with the SEC and CFTC, took in crafting this proposal is critically important to the building of investor confidence, ensuring the integrity of the marketplace and fostering more efficient trading of OTC derivatives.

While evidencing a strong preference for clearing and, where appropriate, exchange trading of OTC derivatives, the proposed framework takes into consideration the differences among OTC derivatives products and the legitimate needs of market participants that use these products to manage their business risks and adopts a tiered approach to the regulation of OTC derivatives markets. We agree that the fundamental principles of an appropriate regulatory framework for OTC derivatives should include:

- OTC derivatives that are standardized should be traded on an exchange and cleared through a central counterparty.

- To the extent the market for certain standardized derivatives is not liquid or deep enough to survive in an exchange-traded environment, they should be traded through an electronic trading system and cleared through a central counterparty.

- To the extent a limited class of OTC derivatives are appropriately customized and, therefore, cannot be (1) executed through an exchange or electronic trading system or (2) cleared through a central counterparty, such transactions should nonetheless be subject to recordkeeping and reporting requirements with a regulated trade repository.

The requirement to clear OTC derivative transactions and, where appropriate, to execute such transactions on an exchange or electronic trading system will provide significant regulatory benefits

The requirement that OTC derivatives be cleared through a central counterparty will achieve four critical regulatory benefits:

- **Reduction of systemic risk.** Centralized clearing of OTC derivatives would significantly reduce the risk posed to the financial system by the failure of a major market participant. Rather than having to sort through potentially hundreds of thousands of bi-lateral transactions to determine the credit and market risk posed by a major counterparty's failure in a bilateral, OTC environment, credit and market risk would be known and quantified in a centrally-cleared environment. In times of crisis, such knowledge is vital if regulators are to take necessary remedial steps for the financial system and broader economy.

- **Elimination of significant operational risk.** Centralized clearing also would remove the remaining operational risk posed by OTC derivatives trading relying on paper confirmations.

- **Creation of market surveillance databases.** Housing a significant volume of derivative exposure in regulated central counterparties would exponentially increase the visibility that key regulators such as the SEC, CFTC and Federal Reserve would have into market participants' trading activity. This visibility would streamline such agencies' reviews for fraudulent and manipulative activity as well as provide the capability to design an early warning system for institutions taking on imprudent risks, potentially threatening the wider financial system. The very nature of clearinghouse functions would promote the standardization of recordkeeping for regulators in their effort to identify and address (1) fraudulent trading, such as insider trading, (2) market manipulation, and (3) imprudent and excessive risk.

- **Transparency for market participants.** Finally, the daily functioning of regulated clearinghouses marking to market positions, and charging and collecting margin on cleared positions would provide significantly improved transparency to the marketplace generally. Such transparency should foster competition, which should ultimately benefit the end-user community.

The further requirement that OTC derivatives be traded on an exchange or other electronic trading system only enhances these regulatory benefits. In particular, market surveillance databases will be improved through the creation of a more complete audit trail, as will market transparency by providing a more public forum for price discovery.

The legislation enacting regulatory reform of OTC derivatives should ensure continued growth and innovation in the OTC derivatives market

As it undertakes the task of developing a regulatory regime for OTC derivatives, we encourage the Subcommittee to take care to strike a regulatory balance similar to that suggested in Secretary Geithner's letter and Chairman Gensler's testimony. However significant the shortcomings in the regulation of OTC derivatives have been, the fact remains that OTC derivatives are a vitally important tool in managing economic risk and, if used properly, will continue to add value to the marketplace

In this regard, we note that different bills have been discussed, and in some cases introduced, in Congress since the start of the financial crisis that appear to be designed to force a particular solution to the perceived deficiencies of the OTC derivatives markets by, among other things, (i) requiring that all derivatives be traded on an exchange, (ii) requiring that all OTC derivatives be traded on a CFTC-registered derivatives clearing organization, and (iii) prohibiting non-hedgers from participating in these markets. We would oppose efforts to so restrict the use of OTC derivatives.

The OTC derivatives market is a global market, requiring a global regulatory approach. It would be inappropriate — and a mistake — for Congress to impose a narrow solution that would effectively designate winners and losers among exchanges, clearing organizations and products and potentially invite regulatory retaliation by international regulatory authorities.

We are in the early stages of the development of a regulatory regime for OTC derivatives, and it would be appropriate, consistent with the framework proposed by the financial regulatory agencies to provide this newly-regulated market and the authorities that will oversee it sufficient flexibility to evolve and adjust over time. We believe we are off to a good start. The financial regulatory authorities cooperated in authorizing central counterparties for the clearing of credit default swaps. More recently, the CFTC and SEC have indicated that they have reached an informal agreement with respect to the oversight of the OTC derivatives market. In addition, principal OTC derivatives participants on both the buy-side and the sell-side have pledged their support in implementing a more structured and efficient market.

Congress should use this opportunity to address other issues that inhibit the development of centralized clearing and a more efficient market generally

Facilitate Portfolio Margining. We recommend that Congress consult with the SEC, CFTC and the industry to enact such amendments to their respective statutes as may be necessary to expand the benefits of portfolio margining beyond that which the agencies have currently authorized. Portfolio margining permits more efficient use of capital across securities and derivatives markets. The several securities exchanges and FINRA have adopted rules to authorize portfolio margining for customers holding securities, including security futures contracts in a securities account and futures on broad-based security indices in a futures account. However, the CFTC and SEC have been unable to agree on the treatment of customer funds deposited to margin a combined securities and futures positions. Consequently, the promise of portfolio margining is largely unfulfilled.

Update Regulation of Alternative Trading Systems. Further, consistent with the goals of enhancing market transparency and oversight of the derivatives generally, we believe Congress should take a fresh look at alternative trading systems ("ATS"), which have come to play an increasingly important role in the execution of securities transactions. Over one-third of equity transactions now occur on ATS, which are not subject to the same regulatory oversight as organized exchanges. In particular, through so-called "dark pools", ATS operators have been allowed to create private markets for securities

transactions, which the acting co-director of the SEC's Division of Trading and Markets has acknowledged "can harm price discovery and worsen short-term volatility."

When the SEC first established the more flexible regulatory regime for ATS, these execution platforms were to provide necessary competition to exchange markets. Over time, however, the disparity in regulation between organized securities exchanges and ATS has placed exchanges at a significant competitive disadvantage. We ask the Subcommittee to encourage the SEC to revisit its regulatory regime for ATS and assure that ATS are held to the same standards as organized exchanges.

Conclusion

On behalf of NYSE Euronext, I want to thank the Subcommittee again for the opportunity to appear before you today. We look forward to working with the Financial Services Committee and other committees of the House of Representatives and the Senate in crafting appropriate amendments to the several securities acts, the banking laws and the Commodity Exchange Act, as appropriate, to implement a regulatory regime for OTC derivatives.

I would be pleased to answer any questions the Subcommittee may have.

STATEMENT OF CHRISTOPHER L. CULP

BEFORE THE

UNITED STATES HOUSE OF REPRESENTATIVES

COMMITTEE ON FINANCIAL SERVICES

SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT-SPONSORED ENTERPRISES

HEARING ON

"THE EFFECTIVE REGULATION OF OVER-THE-COUNTER DERIVATIVES MARKETS"

JUNE 9, 2009

Mr. Chairman Kanjorski and Ranking Member Garrett, thank you for inviting me to present my views to the Subcommittee on the effective regulation of over-the-counter (OTC) derivatives markets.

My name is Christopher Culp. I am a Senior Advisor to Compass Lexecon (a consulting firm that applies the principles of economic analysis to legal and regulatory issues) and Director of Risk Management Consulting Services, Inc. (a specialized firm that provides advisory consulting services on risk management, risk measurement, and financial modeling). In addition, I am an Adjunct Professor of Finance at The University of Chicago's Booth School of Business, where I have taught an MBA course on derivatives since 1998 and a MBA course on structured finance (including credit derivatives) since 2003. I have written four books on derivatives, structured finance, and risk management, and have co-edited two books on similar topics. I am also a member of the Advisory Council of the Competitive Enterprise Institute here in Washington.

In my consulting work over the past 15 years, I have undertaken risk management reviews of about 20 central counterparties, including many of the largest securities and derivatives clearinghouses in the world. In addition, I formerly worked at the Federal Reserve Bank of Chicago, during which time I analyzed certain policy issues from the Reserve Bank's perspective including the following: Bank for International Settlements and Basel Accord-related issues pertaining to clearing and settlement; Fed-related clearinghouse risk management issues; relations between clearinghouses and payment systems; and the resolution of derivatives portfolios (both OTC and exchange-traded) at failed institutions.

I am testifying before this Subcommittee solely in my capacity as an individual and not on behalf of any specific organization with which I am affiliated or any of my consulting clients (past or present); the views expressed here are entirely my own.

In inviting me to testify before this Subcommittee, you posed seven specific questions:

1. Explain your views on the need for OTC regulation broadly.
2. Explain how clearing will affect the OTC market.

3. Address whether clearing should be mandated for all products or only some.
4. Discuss the pros and cons of exchange trading.
5. Address the potential benefits of increased electronic trading.
6. Discuss how to best achieve a balance between price discovery and liquidity.
7. Address whether books and records are appropriate for all trades and whether warehousing is appropriate for all trades.

My responses to your questions appear below. A more detailed version of my thoughts on this subject (including references and examples) appear in a working paper I have attached as an Appendix to this prepared statement. Please note that this working paper is currently in draft form and subject to revision; future versions of the working paper can be found at http://ssrn.com/abstract=1430576.

1. Explain your views on the need for OTC regulation broadly.

In the wake of the ongoing credit crisis, this Subcommittee and other policy makers are considering whether the regulation of over-the-counter (OTC) derivatives could help avert another such crisis and taxpayer-financed bailout. In particular, the Treasury Department has proposed to regulate OTC derivatives as part of its broader plan to try and ensure that "major financial markets [are] strong enough to withstand both system-wide stress and the failure of one or more large institutions."[1] A significant component of the Treasury Plan would require "all standardized OTC derivatives transactions to be executed in regulated and transparent venues and cleared through regulated central counterparties."[2]

The beneficial role of derivatives in facilitating the management of financial risks by financial and non-financial corporations is widely-recognized and well-documented.[3] Especially in the current fragile economic environment, regulatory initiatives that inhibit the ability of companies to insulate themselves from unpredictable fluctuations in interest rates, commodity prices, exchange rates, and other market prices must be carefully scrutinized to ensure that they are justified.

In that regard, there is no real evidence that a lack of clearing or exchange trading of *standardized* OTC derivatives caused or contributed to the current financial crisis.[4] Nor is there good reason to believe that such requirements would prevent another crisis or forestall the failure of another large financial institution. Nevertheless, mandated exchange trading and CCP clearing could be highly disruptive for certain market participants (see my responses to Questions 3 and 4 below).

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[1] Department of the Treasury, *Financial Regulatory Reform – A New Foundation: Rebuilding Financial Supervision and Regulation* (June 30, 2009), at 3. (hereinafter "Treasury Plan")

[2] Treasury Plan, *op. cit.*, at 43.

[3] *See* the references in C. L. Culp, *Risk Transfer: Derivatives in Theory and Practice* (Wiley, 2004).

[4] For discussions of the underlying causes of the crisis, *see, e.g.*, C. W. Calomiris, "Not (Yet) a Minsky Moment," Working Paper (October 4, 2007), T. Zimmerman, "The Great Subprime Meltdown of 2007," *Journal of Structured Finance* (Fall 2007), G. Gorton, "The Panic of 2007," Working Paper (August 25, 2008), P. L. Swan, "The Political Economy of the Subprime Crisis," Working Paper (December 2008), P. J. Wallison, "Cause and Effect," *AEI Financial Services Outlook* (November 2008), L. H. White, "How Did We Get Into This Mess?" *Cato Institute Briefing Paper No. 110* (November 18, 2008), G. Gorton, "Information, Liquidity, and the (Ongoing) Panic of 2007," *American Economic Review: Papers & Proceedings* 99(2) (2009), G. Gorton and A. Metrick, "The Run on Repo and the Panic of 2007-2008," Working Paper (March 9, 2009), and F. Sabry and C. Okongwu, "How Did We Get Here? The Story of the Credit Crisis," *Journal of Structured Finance* (Spring 2009).

The liquidity problems experienced by several large financial institutions during the crisis were related, to the extent derivatives were involved, to their use of certain *non-standard* derivatives products (*e.g.,* credit default swaps on complex asset-backed securities). Although those non-standardized products would apparently not be covered by the Treasury's mandatory clearing and exchange trading requirement, the Treasury Plan also proposes the "[c]omprehensive regulation of all over-the-counter derivatives"[5] in "a coherent and coordinated regulatory framework that requires transparency and improves market discipline."[6]

Yet, product-based financial regulations – such as those suggested by Treasury – have historically required market participants to pay a heavy price in the form of significant legal and regulatory uncertainties.[7] Those uncertainties can impede and stifle innovation, raise market participants' litigation and compliance costs, drive financial activity abroad, and create a tilted playing field for U.S. market participants.

New product-based regulations and their attendant costs, moreover, are simply not necessary to address the deficiencies in the current U.S. financial regulatory framework highlighted by the credit crisis. Consider, for example, the mitigation of "systemic risk," which the Bank for International Settlements defines as "the risk that the illiquidity or failure of one institution, and its resulting inability to meet its obligations when due, will lead to the illiquidity or failure of other institutions."[8] Because systemic risk is primarily related to institutions, institutional supervision and regulation (*e.g.,* improved coordination and consolidated supervision of certain financial conglomerates across all their risk-taking activities) is the most sensible way to address it.[9]

2. Explain how clearing will affect the OTC market.

OTC clearing through CCPs has both benefits and costs for market participants.[10] Indeed, clearing and settling certain OTC derivatives through CCPs was popular well before the advent of the financial crisis.[11]

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[5] Treasury Plan, *op. cit.,* at 3.

[6] Treasury Plan, *op. cit.,* at 43 and 47-49.

[7] *See, e.g.,* J. W. Markham, *The History of Commodity Futures Trading and Its Regulation* (Praeger, 1986), T. A. Russo and M. Vinciguerra, "Financial Innovation and Uncertain Regulation: Selected Issues Regarding New Product Development," *Texas Law Review* 69 (1991), C. L. Culp, "Stock Index Futures and Financial Market Reform," *George Mason University Law Review*, 13(3) (1991), A. C. Gooch and L. B. Klein, "A Review of International and U.S. Case Law Affecting Swaps and Related Derivatives Products," in *Advanced Strategies in Financial Risk Management,* R. J. Schwartz and C. W. Smith, Jr., eds. (New York Institute of Finance, 1993), M. H. Miller, "Functional Regulation," *Pacific-Basin Finance Journal* 2 (1994), C. L. Culp, "Regulatory Uncertainty and the Economics of Derivatives Regulation," *The Financier* 2(5) (December 1995), and P. M. Johnson and T. L. Hazen, *Derivatives Regulation* (Aspen Publishers, 2008 rev).

[8] Bank for International Settlements, *Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries* (Basle, 1990), at 6.

[9] For informative commentaries on systemic risk, *see* P. J. Wallison, "Systemic Risk and the Financial Crisis," *AEI Financial Services Outlook* (October 2008), P. J. Wallison, "Regulation Without Reason: The Group of Thirty Report," *AEI Financial Services Outlook* (January 2009), and G. Gorton, "Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007," Working Paper (May 9, 2009).

[10] The policy issues related to the *mandatory* clearing and settlement of OTC derivatives by a CCP are addressed in my response to Question 3 below. For the purpose of responding to this Question 2, I focus entirely on the impact

In the past decade, OTC clearing has provided market participants with a valuable alternative to bilateral credit risk management for a variety of contracts without forcing them to sacrifice the benefits of private negotiation and customization. Yet, the appeal of OTC clearing varies depending on the products being cleared, the structure and design of the CCP clearinghouse, and the capital structure and risk management capabilities of the would-be users of the CCP facility.

Some of the benefits to market participants of clearing and settling OTC derivatives through CCPs include the following:

- Counterparty credit evaluations and ongoing credit exposure monitoring are performed by the CCP; swap participants need not concern themselves with the credit risk of their original trading counterparties.
- Prices used by the CCP to move margin and resettle positions are transparent to and consistent across the CCP's clearing members. That mitigates disputes over product valuations used for collateral and mark-to-market resettlements.
- In the event of a clearing member default, customers of that clearing member generally experience minimal disruptions (presuming the customers themselves did not cause the clearing member default). Their open positions can usually be transferred to non-defaulting clearing members or unwound relatively quickly, as demonstrated by the resolutions of Lehman Brothers' OTC portfolios at several OTC-clearing CCPs.[12]
- Exposures across firms and positions within a CCP can be monitored by CCP risk managers to control excessive concentrations and correlated risks within the clearinghouse.
- Potential losses in excess of margin are absorbed by a CCP's "risk capital structure," which generally includes some of the CCP's own funds as well as a layer of mutualized risk capital in which the costs of a default are shared by non-defaulting clearing members. As long as default-related losses in excess of margin are imperfectly correlated across clearing members, loss mutualization enables a CCP to achieve a target level of financial protection on a more capital-efficient basis than if clearing members had to allocate risk capital to their potential losses on an individual basis.

OTC clearing also has costs and poses concerns for some market participants. These impediments to the clearing and settlement of certain OTC derivatives by CCPs include the following:

- Relatively well-capitalized institutions that are already actively engaged in counterparty credit assessments and ongoing credit risk monitoring may have relatively little need to outsource credit risk evaluation and monitoring to a CCP.
- If market participants disagree with the CCP's risk measurement methods, margining methodology, or pricing source(s) used to move margin and funds, they may be reluctant to give up their own risk management and valuation approach in favor of the CCP's.
- Margin requirements and daily or twice-daily resettlement of positions have been hallmarks of effective CCP risk management for over a century. But those risk management practices are designed to protect *the clearinghouse,* including its shareholders and clearing members as a group. For some individual participants, however, margin and twice-daily resettlement can increase cash

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of CCP clearing on the OTC market in general – *i.e.,* assuming that OTC clearing remains a choice for market participants rather than a political mandate.

[11] *See* W. Ackworth and J. Morrison, "The Many Flavors of OTC Clearing," *Futures Industry* (June 2009).

[12] Ackworth and Morrison, *op. cit.*

flow volatility and give rise to heightened liquidity risks, especially when firms have limited access to short-term funding and when liquidity conditions are tight (*e.g.*, during the repo market failure in 2007).

- The migration of an OTC derivatives portfolio into a CCP by a swap participant frees up risk capital for that firm if the efficiency gains from *multilateral cross-product* netting inside the CCP exceed any efficiency losses on *bilateral cross-product* netting for products the firm leaves outside the CCP.[13] Such comparisons of capital efficiency, moreover, depend on a number of different issues and can vary across swap participants – *e.g.*, cross-product correlations in bilateral OTC portfolios *vis-à-vis* cross-product correlations in the multilaterally OTC-cleared portfolio, the degree to which cross-product netting efficiencies can be realized within and across CCPs through portfolio or cross-margining agreements, the structure of the CCP's clearing default fund (*e.g.*, CCP clearing default funds that mutualize default-related losses across multiple types of derivatives products are more likely to provide capital relief to market participants than CCPs which do not commingle their loss guaranties across products), the economic capital allocation model of the swap participant (*e.g.*, if a swap dealer allocates risk capital to the 99th percentile loss in a portfolio, the change in risk capital resulting from the migration of part of the portfolio to a CCP depends on the change in the 99th percentile loss), etc. On the whole, it is difficult to make general conclusions about the efficiencies that can be realized by combining clearing for diverse products in a single clearinghouse.
- Certain complex OTC transactions may pose too many practical problems for CCPs to margin, clear, and settle on a cost-effective and prudentially sound basis. Indeed, CCPs and their clearing members may refuse to clear certain complex, non-standard products altogether – *e.g.*, none of the recent initiatives to clear credit default swaps have contemplated the clearing and settlement of credit default swaps on individual subprime residential mortgage-backed securities.

3. Address whether clearing should be mandated for all products or only some.

To date, market participants have been able to undertake benefit/cost analyses of OTC clearing on a case-by-case basis. And as suggested in my answer to the previous Question, those relative economic benefits and costs can vary across market participants, CCPs, and products.

Mandatory OTC clearing (either for all OTC products or a more limited universe of standardized products) would limit the ability of market participants to choose the structure that is most beneficial to them. Yet, eliminating that flexibility for market participants will not necessarily reduce systemic risk or enhance the stability of the market:

- Mandating that a significant portion of OTC derivatives be cleared by a handful of recognized new or existing CCPs is likely to add to the list of financial institutions that regulators believe are too big or too interconnected to fail, thereby creating a new potential source of drains on taxpayers.
- If market participants regard certain CCPs as too big to fail in a world of mandated clearing, "moral hazard" problems may result – *i.e.*, the expectation that a CCP in trouble will be "bailed out" will reduce the incentives for market participants to engage in costly prudential risk management on their own.
- Mandatory OTC clearing could put strains on the payment and banking system given the reliance of many CCPs on correspondent or settlement banks and the inability of most CCPs to directly move

[13] *See* D. Duffie and H. Zhu, "Does a Central Counterparty Reduce Counterparty Risk?" Rock Center for Corporate Governance Working Paper No. 46 and Graduate School of Business Research Paper No. 2022, Stanford University (May 4, 2009).

central bank nostro reserve funds for final funds settlements. Although CCPs currently manage their exposures to settlement banks very carefully, their ability to control those exposures could be overwhelmed if mandatory clearing significantly increases clearing "throughput" and, consequently, the amount of cash settlements flowing through CCP settlement banks.

- Mandated clearing at a *single* government-sanctioned CCP (as is being discussed by some) could create a systemic risk choke point and is an invitation to severe moral hazard problems. In addition, combining clearing for diverse products in a single clearinghouse is not necessarily capital-efficient given the large volume of cross-border swap activity that might be beyond the reach of U.S. mandatory clearing proposals.

Although mandated CCP clearing will not likely mitigate systemic risk, it could impose significant costs on market participants, including the following:

- CCPs compete for business with one another and with non-CCP credit exposure management alternatives. Indeed, tremendous advances have been made in the last decade in bilateral credit exposure management (*e.g.*, automated post-trade processing services, collateral reconciliation facilities, portfolio compression services, multilateral netting services, and delivery-versus-payment agents). Some of those bilateral exposure management services played a critical role in mitigating the impact of the Lehman Brothers failure. But mandated OTC clearing would greatly limit the opportunity for U.S. derivatives participants to utilize such services, which in turn will reduce competition in the clearing and settlement market and could suppress such beneficial financial innovation.
- The Treasury Plan proposes mandatory clearing for "standardized OTC derivatives." Significant legal and regulatory uncertainty could arise over what constitutes a "standardized" transaction. Financial engineers, moreover, could be given perverse incentives to design new financial products in a sufficiently non-standard and complex manner so as to avoid mandatory clearing and exchange trading.
- Mandating OTC clearing could place U.S. derivatives participants at a competitive disadvantage to firms operating in foreign jurisdictions with fewer legal and regulatory uncertainties and no mandatory clearing requirements. American non-financial corporations attempting to manage business risks, for example, would be strongly disadvantaged *vis-à-vis* any of their foreign competitors not subject to similar politically dictated risk management practices.
- Despite the risk management acumen and virtually unblemished track records of major CCPs to date, the increased systemic importance of CCPs in a world of mandated OTC clearing will likely precipitate heightened regulatory scrutiny on CCPs that could impose additional costs on those entities, their shareholders, their clearing members, and customers of their clearing members.

As former Federal Reserve Governor Randall Kroszner commented in 2006:

> My reading of the history of CCP clearing is that it teaches us that private-market regulation can be effective for achieving the public policy goal of safety and soundness and broader financial stability. Government regulation and oversight should seek to provide an environment in which private regulation can be most effective. Government regulation should not place unnecessary barriers – domestically or internationally – in the path of the future evolution of private-market

regulation. Innovation should be fostered, and regulatory protectionism should be rejected.[14]

4. Discuss the pros and cons of exchange trading.

The process by which financial products evolve from customized bilateral deals into more standardized off-exchange deals and then eventually move onto organized trading markets is known as "commoditization." And commoditization, in turn, spawns further innovations in financial institutions and new off-exchange transactions.[15] That process has been going on in the world of derivatives literally for centuries,[16] and there is no empirical evidence of which I am aware that political intervention in the financial innovation process would have averted the current financial crisis (or any earlier ones).

Standardized exchange-traded derivatives play a vital role in the economy and the U.S. financial system. But so do OTC derivatives, whether standardized or not. Indeed, many non-financial corporations prefer to use OTC derivatives as part of the overall relationships with their bankers, leaving bankers and swap dealers to manage the residual risks of their corporate customer portfolios (often by using exchange-traded derivatives). Exchange-traded and OTC derivatives are thus symbiotic and complementary, and there is a legitimate role in the economy for both.

Some of the reasons that certain firms may prefer OTC to exchange-traded derivatives, for example, include the following:

- Even for standardized products, market participants may prefer "relationship-based" trading through brokers and dealers to exchange trading. Faced with a requirement to trade on-exchange, such firms might simply choose to continue conducting their derivatives business bilaterally but *abroad*.
- More concentrated and vertically integrated industries often find exchange-traded derivatives less appealing because firms in such industries have often invested heavily in marketing and distribution channels as mechanisms for identifying market-clearing prices for their products.[17] Forcing OTC contracts on those products into an exchange-traded environment thus essentially imposes capital losses on such firms.
- Standardization in derivatives can enhance market liquidity and reduce transaction costs, but also gives rise to "basis risk" – *i.e.,* the risk that changes in the value of a derivatives contract do not fully cover the losses sustained by the derivatives user. Too much basis risk can render risk management programs ineffective. And as noted by Mr. Murphy (the foreign exchange risk manager of 3M

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[14] R. S. Kroszner, "Central Counterparty Clearing: History, Innovation, and Regulation," *Federal Reserve Bank of Chicago Economic Perspectives* (4Q/2006), at 38 and 40.

[15] *See, e.g.,* S. A. Ross, "Institutional Markets, Financial Marketing, and Financial Innovation." *Journal of Finance* 44(3) (1989), R. C. Merton, R. C., "Financial Innovation and Economic Performance," *Journal of Applied Corporate Finance* (Winter 1992), and R. C. Merton, "Financial Innovation and the Management and Regulation of Financial Institutions," *Journal of Banking and Finance* 19 (1995).

[16] *See, e.g.,* R. De Roover, *Money, Banking and Credit in Mediaeval Bruges* (Cambridge: The Mediaeval Academy of America, 1948), R. De Roover, *The Rise and Decline of the Medici Bank* (Washington, D.C.: Beard Books, 1963 [1999]), and E. J. Swan, *Building the Global Market: A 4000 Year History of Derivatives* (London: Kluwer Law, 2000).

[17] *See* D. W. Carlton, "Futures Trading, Market Interrelationships, and Industry Structure," *American Journal of Agricultural Economics* 65(2) (May 1983), and D.W. Carlton, "Futures Markets: Their Purpose, Their History, Their Growth, Their Successes and Failures," *Journal of Futures Markets* 4(3) (Fall 1984).

Company) in his testimony at this Hearing, new basis risks brought on by the forced exchange trading of OTC derivatives could jeopardize the ability of non-financial corporations to secure hedge accounting treatment under FAS133 and increase their earnings volatility.[18]

Derivatives are often the most efficient way to manage specific financial risks, but are by no means the only way. For firms that prefer to avoid exchange-traded derivatives, mandatory exchange trading could prompt such firms to pursue non-derivatives risk management solutions (*e.g.*, balance sheet hedging, securitization, asset divesture, structured note issuance, or simply remaining unhedged and forcing shareholders of the firm to diversify away undesired financial risks on their own).[19]

5. Address the potential benefits of increased electronic trading.

The relative benefits and costs of electronic trading have been debated for many years in the world of both exchange-traded and OTC derivatives. Financial innovations in trading technologies and platforms, moreover, have occurred at a breakneck pace over the past decade, resulting in a greatly enhanced array of product offerings in the electronic trading space. Examples of "electronic trading" venues now include such diverse alternatives as electronic bulletin boards, distributed offering and electronic deal proposal systems, request-for-quote platforms, automatic order matching systems and limit-order books, and more.

In principle, the major benefits of electronic trading are enhanced pre-trade price transparency (*i.e.*, reduced costs to firms of searching for the best price) and reduced operational errors (*e.g.*, fewer out-trades). Electronic trading can also facilitate more rapid and efficient post-trade processing, such as trade capture, confirmation, collateral reconciliation, and position servicing.

In practice, however, many market participants (particularly large swap dealers) still consider the benefits of electronic trading to be lower than the costs of surrendering their ability to negotiate trades directly with a counterparty (whether in a trading pit, over the phone, or in some other manner).

6. Discuss how to best achieve a balance between price discovery and liquidity.

Liquidity refers to the capacity of a market participant to execute a transaction rapidly without precipitating a large price impact on the market. Price discovery refers to the process by which a market incorporates new information and market participants' expectations into asset prices.

Historically, price discovery was associated mainly with exchange-traded futures. The increasingly fuzzy distinctions between exchange-traded and OTC derivatives, however, have made it progressively harder to draw clean lines between price discovery and market structure. Causation can run in many different directions at the same time, and dynamic adjustments and innovations can cause price discovery to shift – in some cases quite rapidly – from one market to another. Price discovery and liquidity thus cannot easily be associated *a priori* with a type of trading venue or clearing and settlement mechanism.

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[18] Statement for the Record by Timothy Murphy, *House Financial Services Subcommittee on Capital Markets, Insurance, and Government-Sponsored Enterprises – Hearing on the Effective Regulation of Over-the-Counter Derivatives Markets* (June 9, 2009).

[19] *See, e.g.*, C. L. Culp, *The Risk Management Process* (Wiley, 2001), and C. L. Culp, *Structured Finance and Insurance: The ART of Managing Capital and Risk* (Wiley, 2006).

7. Address whether books and records are appropriate for all trades and whether warehousing is appropriate for all trades.

In recent years, position data on certain OTC derivatives has become more readily available to many market participants. A significant proportion of reported credit default swap activity, for example, is tracked in the DTCC's Trade Information Warehouse. Such information repositories make it possible for market participants to monitor their exposures, review post-trade transaction pricing quickly and cost-effectively, and engage in exposure reconciliations that reduce the number of subsequent collateral disputes.

Despite the benefits of trade warehousing, it is unclear that there is a need for Congress or a regulatory agency to mandate specific record-keeping or trade reporting requirements to a trade information warehouse. The market is moving in that direction of its own accord, and market participants are best equipped to define the nuances and operational aspects of such a system. Banking regulators, moreover, have full access to the books and records of their constituent banks and thus can already obtain information about most active swap participants (either because they are regulated banks or because they are counterparties in transactions with regulated banks). It is unclear why obtaining that same information in a different format from a trade information warehouse is necessary.

Conclusion

The fundamental problem with regulating financial products (instead of the institutions that use them) is that product innovation is generally one step ahead of product regulation. Today's product regulations thus often end up addressing yesterday's problems. That is the nature of the dynamic relationship between regulation and financial innovation.[20] No matter how capable the regulator, it is a practical impossibility for regulation to consider all possible financial innovations and to define all possible financial products, thus rendering legal and regulatory uncertainties nearly inevitable in a product-based regulatory regime.[21]

Because large losses that engender the survival of a single firm (and any systemic problems to which a failure of that firm give rise) can result from poor investment decisions made with *any* financial product, moreover, new regulations targeting particular financial products are not likely to be effective at mitigating systemic risk. A more effective and less disruptive way to enhance financial stability is to emphasize the prudential supervision of the safety and soundness of financial institutions. And that would by no means "leave OTC derivatives unregulated." On the contrary, virtually all major OTC derivatives dealers are already regulated at the institutional level.[22] Indeed, some financial institutions have *so many* regulators that responsibility for consolidated enterprise-wide oversight seems to have fallen through the cracks on several occasions during 2007 and 2008. Although that highlights the fact

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[20] *See* M. H. Miller, "Financial Innovation: The Last Twenty Years and the Next," *Journal of Financial and Quantitative Analysis* 21(4) (December 1986), and E. J. Kane, "Interaction of Financial and Regulatory Innovation," *American Economic Review* 78 (1988).

[21] *See* F. L. Smith, Jr., "Cowboys Versus Cattle Thieves: The Role of Innovative Institutions in Managing Risks Along the Frontier," in *Corporate Aftershock*, C. L. Culp and W. A. Niskanen, eds. (Wiley & The Cato Institute, 2003).

[22] Many have cited AIG as an example of an unregulated institution, but AIG was indeed regulated by the federal Office of Thrift Supervision. *See Statement of Scott M. Polakoff regarding American International Group: Examining What Went Wrong, Government Intervention, and Implications for Future Regulation*, before the U. S. Senate, Committee on Banking, Housing, and Urban Affairs (March 5, 2009).

that institutional regulation also poses problems and challenges (and also gives rise to uncertainties), those issues are more easily and less disruptively addressed than the issues to which new product-based regulations would give rise.

APPENDIX: WORKING PAPER

The working paper that follows is a preliminary draft that provides additional details, analysis, and references to the issues I addressed directly in my testimony. Please consult the following link for subsequent revisions of this paper: http://ssrn.com/abstract=1430576.

The Treasury Department's Proposed Regulation of OTC Derivatives Clearing and Settlement*†

by

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ABSTRACT: In the wake of the ongoing credit crisis, policy makers are considering whether the regulation of over-the-counter (OTC) derivatives could help avert another such crisis and taxpayer-financed bailout. In particular, the Treasury Department has proposed to subject OTC derivatives to comprehensive regulation and to mandate the exchange trading and central counterparty clearing and settlement of standardized OTC derivatives. This paper explores the regulatory, operational, and economic aspects of the clearing and settlement of OTC derivatives and the likely consequences of the Treasury Plan. I contend that the proposal to mandate central counterparty OTC clearing for standardized products will *not* likely avert another potential crisis or failure of a large financial institution, but *will* likely engender significant legal and regulatory uncertainty, impede financial innovation, raise market participants' costs, and adversely impact the competitiveness of U.S. derivatives participants. To address systemic and payment system concerns, improvements in the consolidated enterprise-wide supervision and regulation of certain financial institutions (across all of their risk-taking activities) will likely prove more effective and less disruptive than new product-based regulations.

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For the latest revision of this paper, please see: http://ssrn.com/abstract=1430576

PRELIMINARY DRAFT

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† This paper is a more detailed exposition of the issues explored in my prepared testimony for the U.S. House of Representatives Financial Services Committee Subcommittee on Capital Markets, Insurance, and Government-Sponsored Enterprises Hearing on "The Effective Regulation of Over-the-Counter Derivatives Markets" (June 9, 2009).

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I. INTRODUCTION

The Department of the Treasury introduces and motivates its proposed reforms to the U.S. financial regulatory system as follows: "We must act now to restore confidence in the integrity of our financial system...We must build a new foundation for financial regulation and supervision that is simpler and more effectively enforced, that protects consumers and investors, that rewards innovation and that is able to adapt and evolve with changes in the financial market."[1,2]

In particular, the Treasury Department has proposed to regulate over-the-counter (OTC) derivatives as part of its broader plan to try and ensure that "major financial markets [are] strong enough to withstand both system-wide stress and the failure of one or more large institutions."[3] A significant component of the Treasury Plan would require "all standardized OTC derivatives transactions to be executed in regulated and transparent venues and cleared through regulated central counterparties."[4]

The beneficial role of derivatives in facilitating the management of financial risks by financial and non-financial corporations, however, is widely-recognized and well-documented. Especially in the current fragile economic environment, regulatory initiatives that inhibit the ability of companies to insulate themselves from unpredictable fluctuations in interest rates, commodity prices, exchange rates, and other market prices must be carefully scrutinized to ensure that they are justified.

In that regard, there is no real evidence that a lack of clearing or exchange trading of *standardized* OTC derivatives caused or contributed to the current financial crisis.[5] Nor is there good reason to believe that such requirements would prevent another crisis or forestall the failure of another large financial institution. Nevertheless, mandated exchange trading and CCP clearing could be highly disruptive for certain market participants.

The liquidity problems experienced by several large financial institutions during the crisis were related, to the extent derivatives were involved, to their use of certain *non-standard* derivatives products (*e.g.*, credit default swaps on complex asset-backed securities). Although those non-standardized products would apparently not be covered by the Treasury's mandatory clearing and exchange trading

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[1] Department of the Treasury, *Financial Regulatory Reform – A New Foundation: Rebuilding Financial Supervision and Regulation* (June 30, 2009), at 2. (hereinafter "Treasury Plan")

[2] The Treasury Plan is quite lengthy and covers numerous areas of policy and regulation. My comments on the Plan in this paper are confined to a few specific but significant proposals in the Treasury Plan. This paper is not intended to (nor does it actually) provide a complete description or analysis of the Treasury Plan more generally.

[3] Treasury Plan, *op. cit.*, at 3.

[4] Treasury Plan, *op. cit.*, at 43.

[5] For discussions of the underlying causes of the crisis, *see, e.g.*, C. W. Calomiris, "Not (Yet) a Minsky Moment," Working Paper (October 4, 2007), T. Zimmerman, "The Great Subprime Meltdown of 2007," *Journal of Structured Finance* (Fall 2007), G. Gorton, "The Panic of 2007," Working Paper (August 25, 2008), P. L. Swan, "The Political Economy of the Subprime Crisis," Working Paper (December 2008), P. J. Wallison, "Cause and Effect," *AEI Financial Services Outlook* (November 2008), L. H. White, "How Did We Get Into This Mess?" *Cato Institute Briefing Paper No. 110* (November 18, 2008), G. Gorton, "Information, Liquidity, and the (Ongoing) Panic of 2007," *American Economic Review: Papers & Proceedings* 99(2) (2009), G. Gorton and A. Metrick, "The Run on Repo and the Panic of 2007-2008," Working Paper (March 9, 2009), and F. Sabry and C. Okongwu, "How Did We Get Here? The Story of the Credit Crisis," *Journal of Structured Finance* (Spring 2009).

requirement, the Treasury Plan also proposes the "[c]omprehensive regulation of all over-the-counter derivatives"[6] in "a coherent and coordinated regulatory framework that requires transparency and improves market discipline."[7]

Yet, product-based financial regulations – such as those suggested by Treasury[8] – have historically required market participants to pay a heavy price in the form of significant legal and regulatory uncertainties. Those uncertainties can impede and stifle innovation, raise market participants' litigation and compliance costs, drive financial activity to foreign shores, and create a tilted playing field for U.S. market participants. Product-based regulations and their attendant costs, moreover, are unnecessary to address the fundamental deficiencies in the current U.S. financial regulatory framework highlighted by the credit crisis – *e.g.,* the need for improved consolidated supervision of certain financial conglomerates across *all* their risk-taking activities, not OTC derivatives in particular.[9]

In the remainder of this paper, I address these issues in more detail. Section II provides a discussion on product-based financial regulation and the problems to which it could give rise if applied to OTC derivatives. In Section III, I review the economic benefits and costs of OTC clearing (presuming that it remains a choice for market participants). In Section IV, I analyze the Treasury's proposal to mandate central counterparty clearing for standardized OTC derivatives. Section V reviews the benefits and costs of exchange trading and the Treasury Plan to mandate exchange trading for standardized OTC derivatives. I also review related marked structure issues with which legislators and regulators are struggling, including the benefits and costs of electronic trading, the relation between liquidity and price discovery, and the Treasury's proposal to mandate record-keeping and a trade information warehouse for OTC derivatives. Section VI concludes.

II. PRODUCT-BASED REGULATION AND LEGAL/REGULATORY UNCERTAINTY

U.S. financial regulation in the Post-War Era has involved two fundamentally distinct types of regulations: regulations of specific institutions, and regulations on specific products or markets.

Regulatory agencies like the Office of the Comptroller of the Currency (OCC), the Federal Reserve, the Office of Thrift Supervision (OTS), and various state banking and insurance regulators are institutional regulators. Firms subject to institutional regulation are deemed to merit regulation because of their role in the economic system and capital markets – *e.g.,* banks are regulated because customer deposits are federally insured and because they have direct access to payment systems. Institution supervision and regulation thus encompass the safety and soundness of the entire regulated institution across all of its risk-taking activities.

Both the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), by contrast, are product-based regulators. The mission of the SEC is "to protect investors,

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[6] Treasury Plan, *op. cit.,* at 3.

[7] Treasury Plan, *op. cit.,* at 43.

[8] Various parts of the Treasury plan propose changes to institutional regulations, but many of the proposals concerning OTC derivatives would primarily be accomplished through product-based regulation. *See* Treasury Plan, *op. cit.,* at 47-49.

[9] The Treasury Plan makes a number of proposals regarding consolidated institution supervision. I do not address those explicitly here in the interest of brevity.

maintain fair, orderly, and efficient markets, and facilitate capital formation."[10] To accomplish this, the SEC regulates non-exempt securities and options on securities, securities exchanges, broker/dealers, and other securities market participants. The CFTC, in turn, regulates non-exempt commodities, futures and futures options, futures exchanges, futures commission merchants, and other institutions involved with commodities or futures trading. The Commission's mandate is assuring "the economic utility of the futures markets by encouraging their competitiveness and efficiency, protecting market participants against fraud, manipulation, and abusive trading practices, and by ensuring the financial integrity of the clearing process."[11]

Product-based regulation is sometimes called "functional regulation" because it purports to regulate the economic functions of the capital market rather than the institutions that provide those functions at any given time.[12] Judge Easterbrook of the Seventh Circuit has commented: "[O]ne could think of the distinction between the jurisdiction of the SEC and that of the CFTC as the difference between regulating capital formation and regulating hedging."[13]

A. Product Ambiguity and Regulatory/Legal Uncertainty

Ambiguous definitions of financial products and the legal and regulatory uncertainties generated by those ambiguities have been the norm rather than the exception in the history of U.S. product-based derivatives regulation. That is not altogether surprising given that the original frameworks for regulating commodities and securities were put into place in the 1930s.[14] Financial innovations that have occurred since then have posed numerous legal, regulatory, and jurisdictional challenges that have forced frequent revisions and clarifications of regulations.

The 1970s, 80s, and 90s represented a particularly challenging period for derivatives regulation. Those decades were marred by numerous court cases and regulatory disputes over issues related to the enforceability and regulation of various types of derivatives products. The SEC and CFTC, Congress, and the Courts struggled to resolve issues like the following:[15] What is a "commodity"? What is a "futures

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[10] http://www.sec.gov/about/whatwedo.shtml

[11] http://cftc.gov/aboutthecftc/index.htm

[12] For two sharply contrasting perspectives on the virtues and vices of functional regulation, *see* M. H. Miller, "Functional Regulation," *Pacific-Basin Finance Journal* 2 (1994), and Myron S. Scholes, "The Future of Futures," in *Risk Management: Problems & Solutions*, W.H. Beaver and G. Parker, eds. (New York: McGraw-Hill, 1995).

[13] *Chicago Mercantile Exchange v. SEC*, 883 F.2d 537 (7th Cir. 1989), at 543.

[14] Commodity and futures market regulations trace primarily to the Commodity Exchange Act of 1936 (as amended). (Prior to the establishment of the CFTC in 1974, commodities regulation was undertaken by the Grain Futures Authority and the Commodity Exchange Administration – later renamed the Commodity Exchange Authority.) Securities regulations are based on the Securities Act of 1933 (as amended) and the Securities Exchange Act of 1934 (as amended). *See, e.g.,* J. W. Markham, *The History of Commodity Futures Trading and Its Regulation* (Praeger, 1986).

[15] *See, e.g.,* T. A. Russo and M. Vinciguerra, "Financial Innovation and Uncertain Regulation: Selected Issues Regarding New Product Development," *Texas Law Review* 69 (1991), C. L. Culp, "Stock Index Futures and Financial Market Reform," *George Mason University Law Review*, 13(3) (1991), A. C. Gooch and L. B. Klein, "A Review of International and U.S. Case Law Affecting Swaps and Related Derivatives Products," in *Advanced Strategies in Financial Risk Management,* R. J. Schwartz and C. W. Smith, Jr., eds. (New York Institute of Finance, 1993), C. L. Culp, "Regulatory Uncertainty and the Economics of Derivatives Regulation," *The Financier* 2(5) (December 1995), and P. M. Johnson and T. L. Hazen, *Derivatives Regulation* (Aspen Publishers, 2008 rev).

contract"? What kinds of foreign exchange transactions are excluded from CFTC regulation? What kinds of commercial forward purchase contracts are excluded from CFTC regulation? Are swaps futures, securities, both, or neither? Does the regulatory status of a product depend on the sophistication of the firm or individual using the product and/or the economic purpose of the transaction? If a product has characteristics of both securities and futures, does SEC or CFTC jurisdiction dominate? What are the tests for determining when an OTC derivatives contract has enough "futurity" that it is an "illegal off-exchange futures contract"?

Both the SEC and CFTC attempted to clarify some of these uncertainties in the 1980s and 90s through a combination of enforcement actions, policy statements, no action letters, and new regulations. Congress also took significant steps to reduce the legal and regulatory uncertainty overhanging OTC derivatives with the adoption of the Futures Trading Practices Act of 1992, the Gramm-Leach-Bliley Act of 1999, and the Commodity Futures Modernization Act (CFMA) of 2000.

The Treasury Plan and other reforms that attempt to single-out "OTC derivatives" for regulatory purposes, however, could undermine many of the important certainty-enhancing achievements that have been made over the past decade.

B. OTC and Exchange-Traded Derivatives: *Not* a Black-and-White Distinction

"OTC" and "exchange-traded" derivatives do not represent a black-and-white dichotomy. As such, the proposed dichotomous regulation of these products could result in even more pronounced legal and regulatory uncertainties than we have seen in the past.

(1) OTC Derivatives

OTC derivatives are bilateral, privately negotiated contracts that derive their value from some underlying commodity or asset price, reference rate, or index. They may be settled in cash or physically and include a wide range of commercial contracts like forward purchase agreements. Indeed, commercial OTC derivatives have been documented going back for centuries.[16]

Swaps are widely regarded as the first major example of modern OTC financial derivatives. In 1981, for example, the World Bank and IBM executed a swap agreement arranged by Morgan Stanley.[17] That transaction was typical of other swaps executed in the early 1980s – *viz.*, mostly one-off deals arranged by banks for their corporate finance customers. Soon thereafter, dealers began to intermediate OTC derivatives transactions to reduce counterparty search costs for their customers. Unlike brokers or advisors, dealers were principals in the transactions they arranged.

Nearly all OTC derivatives today are still negotiated between a dealer and end user or between two dealers. Inter-dealer brokers (IDBs) also play an important role in OTC derivatives by helping dealers (and sometimes end users) identify willing counterparties and compare different bids and offers. In

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[16] *See, e.g.*, R. De Roover, *Money, Banking and Credit in Mediaeval Bruges* (Cambridge: The Mediaeval Academy of America, 1948), R. De Roover, *The Rise and Decline of the Medici Bank* (Washington, D.C.: Beard Books, 1963 [1999]), E. J. Swan, *Building the Global Market: A 4000 Year History of Derivatives* (London: Kluwer Law, 2000), and C. L. Culp, *Risk Transfer: Derivatives in Theory and Practice* (New York: Wiley, 2004).

[17] *See, e.g.*, Y. S. Park, "Currency Swaps as a Long-Term International Financing Technique," *Journal of International Business Studies* 15(3) (Winter 1984).

addition, various forms of electronic trading systems have also been developed to facilitate the negotiation of OTC derivatives. (See Section V.)

(2) Exchange-Traded Derivatives

From an economic perspective, a derivatives exchange is an organization that performs three main functions:[18]

- *Product Design:* An exchange designs contracts that are listed for trading by authorized trading participants. Most of the terms in a typical exchange-traded derivatives contract (*e.g.*, contract expiration dates, minimum price quotation increments, deliverable grade of the underlying, delivery location and mechanism, etc.) are standardized.
- *Trading Venue and Rules:* Exchanges provide a trading venue (either physical or electronic) for the products they design and list. Direct access to an exchange is generally limited to firms and individuals that the exchange approves as authorized trading participants.[19] Trading participants, in turn, agree to abide by the rules of the exchange.
- *Price Reporting:*[20] Transaction prices resulting from the trading process are distributed by the exchange to trading participants, data vendors and subscribers, and (ultimately) the financial press.

Regulators often adopt more specificity than above in their definitions of exchanges and exchange-like entities (especially with the advent in the past decade of numerous quasi-exchange trading venues). In some cases, that additional specificity reduces legal and regulatory uncertainty when compared to more ambiguous regulatory concepts like "boards of trade." In other cases, more specificity can create additional uncertainty to the extent that the specific definitions are associated with ill-defined or ambiguous regulated products.

Consider, for example, the CFTC's current system of classifying exchange-like entities.[21] Designated Contract Markets (DCMs) list commodities, futures, and futures options for trading by all types of authorized traders, whereas and Designated Transaction Execution Facilities (DTEFs) allow a more restricted group of institutional or otherwise eligible traders access to trade a narrower range of products.

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[18] Various definitions of exchanges can be found in the academic literature, and I make no claim that mine is "the right one." *See, e.g.,* L. G. Telser and H. Higginbotham, "Organized Futures Exchanges: Costs and Benefits," *Journal of Political Economy* 85 (1977), L. G. Telser, "Why There are Organized Futures Markets," *Journal of Law and Economics* 24(1) (April 1981), J. H. Mulherin, J. M. Netter, and J. A. Overdahl, "Prices are Property: The Organization of Financial Exchanges from a Transaction Cost Perspective," *Journal of Law and Economics* 34(2-2) (October 1991), and S. C. Pirrong, "The Efficient Scope of Private Transactions-Cost Reducing Institutions: The Successes and Failures of Commodity Exchanges," *Journal of Legal Studies* 24 (1995).

[19] Customers that are not authorized trading participants but wish to transact in exchange-traded derivatives must do so through a designated broker or futures commission merchant.

[20] *See* Mulherin, Netter, and Overdahl, *op. cit.,* and J. H. Mulherin, J. M. Netter, and J. A. Overdahl, "Who Owns the Quotes? A Case Study Into the Definition and Enforcement of Property Rights at the Chicago Board of Trade," *The Review of Futures Markets* (1991).

[21] In addition to its regulation of markets where regulated financial products trade, the CFTC also regulates clearinghouses that clear and settle regulated futures and options. These entities are classified as either Designated Clearing Organizations (DCOs) or Multilateral Clearing Organizations (MCOs).

The CFTC also defines two categories of quasi-exchanges that are exempt from CFTC regulation.[22] Exempt Boards of Trade (EBOTs) can be exempt from CFTC regulation as long as the products listed for trading have no underlying cash market, an underlying market with inexhaustible deliverable supply, or an underlying market that is sufficiently large and liquid to make market manipulation highly unlikely. GFI Group's ForexMatch®, for example, is an EBOT that facilitates electronic trading in various OTC currency derivatives.[23]

Similarly, Exempt Commercial Markets (ECMs) are electronic trading platforms that facilitate trading of "exempt commodities" (*e.g.*, energy and precious metals) by Eligible Market Participants. ECM designations have been approved by the CFTC for the Chicago Climate Exchange's carbon emissions allowance market, the Intercontinental Exchange (ICE) markets for precious and base metals and certain energy products, the International Maritime Exchange (IMAREX) freight rate derivatives market, and others.

Notice how heavily these regulatory definitions of certain exchange and exchange-like entities depend on the underlying products the exchange lists for trading. In other words, whether or not a particular trading platform or entity is considered an exchange for regulatory purposes depends largely on whether it lists a regulated product for trading. As such, new regulations that distinguish between "exchange-traded" and "OTC" derivatives may be at best circuitous and at worst nearly completely undefined.

C. Systemic Risk

The Bank for International Settlements (BIS) defines systemic risk as "the risk that the illiquidity or failure of one institution, and its resulting inability to meet its obligations when due, will lead to the illiquidity or failure of other institutions."[24] Because systemic risk is primarily related to institutions, institutional supervision and regulation – not product-based regulation – is the most sensible way to address it.[25]

The Treasury Plan states that the "the market for OTC derivatives has gone largely unregulated."[26] Although no federal or state agency has ever been designated as a regulator of OTC derivatives *as a product*, virtually all systemically important financial institutions are regulated – including oversight of their OTC derivatives activities.[27] For example, the Fed's *Trading and Capital-Markets Activities Manual* for examiners is 675 pages long and includes sections on OTC derivatives like forwards, forward rate

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[22] An organization must apply to the CFTC for such an exemption.

[23] http://www.gfigroup.com/assets/0/190/192/213/225/f4dcc015-3131-4ca2-9a7a-5a76e4407b62.pdf.

[24] Bank for International Settlements, *Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries* (Basle, 1990), at 6. (hereinafter "Lamfalussy Report")

[25] For informative commentaries on systemic risk, *see* P. J. Wallison, "Systemic Risk and the Financial Crisis," *AEI Financial Services Outlook* (October 2008), P. J. Wallison, "Regulation Without Reason: The Group of Thirty Report," *AEI Financial Services Outlook* (January 2009), and G. Gorton, "Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007," Working Paper (May 9, 2009).

[26] Treasury Plan, *op. cit.*, at 47.

[27] Certain end users of derivatives are subject to little or no direct regulation – *e.g.*, non-financial corporations that use OTC derivatives to hedge, or hedge funds that enter into OTC derivatives for position-taking.

agreements, interest rate and currency swaps, credit derivatives, OTC equity derivatives, OTC options, and commodity swaps.[28]

Admittedly, the resources available at some regulatory agencies may have been too limited to facilitate their consolidated supervision and regulation of large financial institutions involved in multiple areas of financial activity. And there are other problems in the current institutional regulatory regime, including overlaps across institutional regulators (within the U.S. and cross-border), definitions of primary consolidated institution regulators, and the like. But these problems are not caused by OTC derivatives, nor would they be best addressed by product-based OTC derivatives regulation.

Consider, for example, AIG. When the OTS approved AIG's request to form AIG Federal Savings Bank in 2000, the OTS became the consolidated supervisor of the AIG conglomerate.[29] And as Acting OTS Director Scott Polakoff explained to the Senate Banking Committee, OTS did not take its supervisory responsibilities lightly:

> OTS's primary point of contact with the [AIG] holding company was through AIG departments that dealt with corporate control functions, such as Enterprise Risk Management (ERM), Internal Audit, Legal/Compliance, Comptroller, and Treasury. OTS held monthly meetings with AIG's Regulatory and Compliance Group, Internal Audit Director and external auditors. In addition, OTS held quarterly meetings with the Chief Risk Officer, the Treasury Group and senior management, and annually with the board of directors. OTS reviewed and monitoring risk concentrations, intra-group transactions, and consolidated capital at AIG, and also directed corrective actions against AIG's Enterprise Risk Management. OTS also met regularly with Price Waterhouse Coopers (PwC), the company's independent auditor.[30]

Approximately 85% of AIG (measured by allocated capital), moreover, was regulated by some other regulator *in addition to OTS*.[31]

Solutions to the kinds of oversight issues raised by AIG, however, will not come from new regulations aimed at OTC derivatives in general. To address these issues, institutional regulatory reform is required.

III. CLEARING AND SETTLEMENT STRUCTURES FOR OTC DERIVATIVES

An OTC derivatives contract obliges its counterparties to make certain payments over the life of the contract or following an early termination event.[32] "Clearing" is the process by which payment obligations between two or more firms are computed (and often netted), and "settlement" is the

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[28] *See Trading and Capital-Markets Activities Manual* Section 4000.

[29] *See Statement of Scott M. Polakoff regarding American International Group: Examining What Went Wrong, Government Intervention, and Implications for Future Regulation*, before the U. S. Senate, Committee on Banking, Housing, and Urban Affairs (March 5, 2009).

[30] *Id.*, at 10-11.

[31] *Id.*, at 9.

[32] On physically settled derivatives, the long (buyer) has an obligation to make a payment, but the short (seller) has an obligation to make a delivery of the underlying asset. Clearing and settlement thus refer to both funds and assets. For expositional simplicity and without loss of generality, however, I will assume we are discussing only cash-settled derivatives in which both parties' obligations are in funds.

process by which those obligations are discharged. The means by which payments on OTC derivatives are cleared and settled affect how the credit risk borne by counterparties in the transaction is managed.

Three general approaches to the clearance and settlement of OTC derivatives are discussed below. In all three areas, the clearing and settlement solutions available to OTC derivatives participants have expanded significantly in the past decade.

A. Bilateral Clearing and Settlement Infrastructure Providers

In the 1980s and early 1990s, firms managed and controlled their bilateral counterparty exposures primarily through the use of "credit enhancements" that either reduced the likelihood of dealing with a relatively high-risk counterparty or reduced the potential loss exposure if a default did occur. Popular credit enhancements included collateral, periodic marking to market and cash resettlement of positions, and third-party performance guaranties.[33]

Attention by market participants to credit risk management techniques and credit enhancements was heightened between 1989 and 1992 when five companies failed with relatively substantial amounts of outstanding OTC derivatives: Development Finance Corporation of New Zealand (1989), Drexel Burnham Lambert (1990), British & Commonwealth Merchant Bank (1990), Bank of New England (1991), and Olympia and York (1992).

Regulators and legislators were also paying significant attention to OTC derivatives credit risk management around the same time – *e.g.*, specific sections on managing the credit risk of swaps were included, for example, in the Financial Institutions Reform, Recovery, and Improvement Act (FIRREA) of 1989, the 1990 amendments to the U.S. Bankruptcy Code, and the Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991. The Bank for International Settlements (BIS), moreover, analyzed swap counterparty credit risk management in its 1989 Angell Report,[34] 1990 Lamfalussy Report,[35] and 1992 Promisel Report.[36] (The BIS has continued to focus considerable attention to this issue since then, as well.[37])

Two important forms of credit enhancements that began to enjoy widespread used by OTC derivatives participants are bilateral netting and collateral. I describe each below, and then review some of the

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[33] *See* Global Derivatives Study Group, *Derivatives: Practices & Principles – Appendix III: Survey of Industry Practice* (Washington, D.C.: The Group of Thirty, March 1994) and Global Derivatives Study Group, *Derivatives: Practices & Principles – Follow-Up Surveys of Industry Practice* (Washington, D.C.: The Group of Thirty, December 1994).

[34] Bank for International Settlements, *Report on Netting Schemes by the Group of Experts on Payment Systems of the Central Banks of the Group of Ten Countries* (Basle, 1989). (hereinafter "Angell Report")

[35] Lamfalussy Report, *op. cit.*

[36] Bank for International Settlements, *Recent Developments in International Interbank Relation,* Report Prepared by a Working Group Established by the Central Banks of the Group of Ten Countries (Basle, 1992). (hereinafter "Promisel Report")

[37] *See, e.g.,* Bank for International Settlements, *OTC Derivatives: Settlement Procedures and Counterparty Risk Management* (Basel, 1998) (hereinafter "Parkinson Report"), and Committee on Payment and Settlement Systems, *New Developments in Clearing and Settlement Arrangements for OTC Derivatives* (Bank for International Settlements, March 2007) (hereinafter "CPSS 2007 Report").

ways that clearing and settlement agents can make such credit enhancements even more effective and operationally efficient.

(1) Bilateral Netting

Most OTC derivatives are negotiated under *pro forma* agreements known as master agreements that specify a set of commonly used definitions and contract terms. Any particular transaction can be customized, but the use of master agreements provides contract language that is generally accepted amongst OTC derivatives participants. The most popular such master agreements are the ISDA Master Agreements.

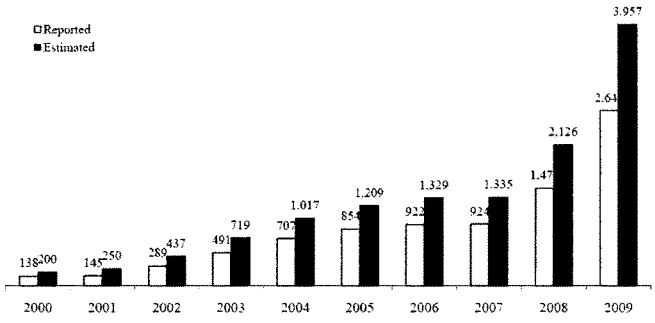
Among the standard terms of the ISDA Master Agreements is the bilateral netting of periodic cash flows and close-out netting in the event of a counterparty default or early termination event. Bilateral netting significantly reduces counterparty credit exposures by distilling the gross payments due to change hands into smaller net payments, both over the life of a transaction and following a termination.

Bilateral netting, moreover, is not limited to single types of contracts or products. The ISDA Master Agreements also facilitate cross-product bilateral netting. Two counterparties with significant bilateral credit exposures across several products (*e.g.*, interest rate swaps and credit default swaps) thus can bilaterally net their payment obligations across all their asset classes and transactions, provided they are covered by a single master netting agreement.

(2) Collateral

OTC derivatives documented under popular master agreements typically include collateral and other credit support provisions. The ISDA Master Agreements, moreover, often include a Credit Support Annex (CSA) that articulates specific collateral requirements for the transaction. Figure 1 summarizes the total values of reported and estimated collateral from 2000 through 2009. Reported and estimated collateral was rising prior to the credit crisis, and have increased even more significantly since.

Figure 1: Growth of Value of Total Reported and Estimated Collateral, 2000 – 2009 ($bns)



SOURCE: International Swaps & Derivatives Association, *ISDA Margin Survey 2009*

Although collateral provisions can be customized to the needs of individual counterparties in any given transaction, the collateral that a counterparty must post is usually a function of its perceived credit

worthiness and the size of the potential credit exposure on the transaction.[38] Many contracts also include provisions for additional collateral that is callable following a downgrade, a significant increase in mark-to-market exposure, or both.

(3) Clearing and Settlement Infrastructure Providers

A clearing and settlement infrastructure provider is a third-party entity that plays a purely operational role in the clearing and settlement process. Although infrastructure providers offer no form of *direct* protection to OTC derivatives participants to cover default-related losses, they can enhance the efficiency of the credit risk management process and thereby reduce credit, operational, and systemic risk *indirectly* – sometimes significantly.

One of the most instructive examples of a clearing and settlement infrastructure provider was the original clearinghouse of the Chicago Board of Trade (CBOT). The CBOT was formed in 1848 as a voluntary membership organization to promote agricultural commerce in Chicago. When the CBOT imposed formal trading rules and standardized trading contracts in 1865, the first true U.S. futures market was born.[39] And by the late 1870s, the CBOT was beginning to help members address their counterparty credit risk concerns by calculating and enforcing collateral (a.k.a. margin) requirements on behalf of CBOT market participants.[40]

The CBOT's clearinghouse was founded in 1883. Although no default protections were provided to trading participants, the clearinghouse facilitated offsets of positions and calculated trading members' net margin and payment obligations on a *multilateral* basis. Whereas bilateral netting applies to payments across one or more products between two firms, multilateral netting allows obligations to be netted across multiple trading participants at the same time.

According to the *Chicago Tribune*, the CBOT clearinghouse processed 29,986 checks in its first 14 weeks of operation, as compared to the approximately 260,000 checks that would have been exchanged prior to the advent of the clearinghouse netting system.[41] So, although the CBOT did not provide direct default protections to trading participants until 1925 when the Board of Trade Clearing Corporation (BOTCC) was established as a central counterparty,[42] its earlier provision of a margining and multilateral netting system still greatly reduced the sizes of counterparty credit exposures.

More recent examples of clearing and settlement infrastructure providers for OTC derivatives include the following:

- ***Trade Affirmation, Matching, and Confirmation Services:*** Significant developments in the past few years have advanced the automation and efficiency of OTC derivatives trade processing and post-

[38] In addition to collateral, periodic cash resettlements of OTC derivatives do occur.

[39] R. S. Kroszner, "Can the Financial Markets Privately Regulate Risk? The Development of Derivatives Clearinghouses and Recent Over-the-Counter Innovations," *Journal of Money, Credit, and Banking* 32(3-2) (August 1999), 596-618.

[40] Kroszner, *op. cit.*

[41] J. T. Moser, "Contracting Innovations and the Evolution of Clearing and Settlement Methods at Futures Exchanges," *Federal Reserve Bank of Chicago Working Paper 98-26* (August 1998), and Kroszner, *op. cit.*

[42] *See* J. Williams, *The Economic Function of Futures Markets* (Oxford: Oxford University Press, 1986), Kroszner, *op. cit.*, and Moser, *op. cit.*

trade servicing. For example, the Depository Trust & Clearing Corporation (DTCC) "provides an integrated global payment processing infrastructure for the OTC credit derivatives market...."[43] Specifically, DTCC's Deriv/SERV system provides a matching and confirmation service to dealers on the majority of their credit derivatives transactions. Transactions processed through Deriv/SERV are then entered into a Trade Information Warehouse that tracks the details of all resident transactions. Other examples of post-trade processing agents include the Society for Worldwide Interbank Financial Telecommunication (SWIFT) and SWIFTNet for OTC derivatives,[44] Markit Wire, Traiana Harmony, and Creditex's T-Zero.

- ***Exposure and Collateral Reconciliation Services:*** A significant challenge facing OTC derivatives participants (especially in recent years) is the calculation of mark-to-market values of open positions for the purpose of collateral calls. Although the calculations themselves may not seem difficult, counterparties must reconcile their exposure estimates with one another and agree on a price for collateral calculations. Several infrastructure providers have developed services to help OTC derivatives participants streamline this process and address potential valuation disputes before a collateral call occurs. TriOptima's triResolve, for example, reports reconciling over 10 million trades across more than 1,400 bilateral relationships (most on a daily basis).[45] Similarly, DTCC and Euroclear provide a reconciliation service in which positions from DTCC's Trade Information Warehouse are re-priced with valuation services from Euroclear Bank.

- ***Collateral Management:*** Euroclear Bank's DerivManager provides various trade and portfolio analysis tools for OTC derivatives, including trade recognition and matching, bilateral exposure reconciliations, and matched-exposure netting. DerivManager can perform these services on portfolios of partially unmatched trades with multiple counterparties or on trades already matched by another provider (*e.g.*, DTCC's Deriv/SERV and Trade Information Warehouse). Beyond post-trade processing and servicing, users of DerivManager can also take advantage of Euroclear Bank's collateral management and settlement services.

- ***Portfolio Compression Services:*** The BIS recommended in 2007 that "market participants should routinely identify trades that can be voluntarily terminated, so as to reduce to the extent possible the positions that would need to be replaced following a default."[46] Voluntary early terminations and "tear-ups" can also help OTC derivatives participants reduce operational risks and regulatory capital requirements. TriOptima's triReduce, for example, has terminated in excess of 2.2 million OTC derivatives transactions with a total notional amount of around $63 trillion since its 2003 launch.[47] Similarly, Markit and Creditex began providing a portfolio compression service for credit derivatives in August 2008. Since its inception, the Markit/Creditex compression program has reduced over $1 trillion in notional CDS amounts.[48]

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[43] http://www.cls-group.com/Products/Settlement/Pages/ForOTCDerivatives.aspx

[44] SWIFT, *Derivatives: Enabling Automation for OTC Derivatives Transactions* (2008).

[45] http://www.trioptima.com/o.o.i.s/14.

[46] CPSS 2007 Report, *op. cit.*, at 38.

[47] M. Yallop, *The Future of the OTC Markets*, ICAP plc White Paper (November 10, 2008).

[48] http://www.creditex.com/portfolio-compression.html

B. Delivery Versus Payment Agents

A delivery-versus-payment (DVP) Agent ensures that a payment made by one party is not passed on to its counterparty until that counterparty has made its own corresponding required payment in turn.[49] If one counterparty fails to make good on its obligation, the DVP Agent returns the non-defaulting counterparty its funds payment. Because DVP Agents do not themselves honor payment obligations in the event of a default, they bear little or no credit risk. Nevertheless, DVP Agents can significantly reduce settlement risk.[50]

DVP Agents are most commonly associated with securities settlements. Nevertheless, certain OTC derivatives transactions – especially current derivatives – also benefit from DVP Agent services.[51]

(1) DVP Agents and Settlement Risk

Settlement risk is the risk that a counterparty defaults during the settlement period in which the obligations of a contract are being irrevocably and finally discharged. Settlement risk is sometimes called "Herstatt risk" in reference to the failure of Bankhaus Herstatt.

Bank Herstatt was ordered into liquidation at the end of the German banking day on June 26, 1974. The bank's closure, however, occurred *after* daily payments had been processed by the Bundesbank at 3:30pm Frankfurt time. Before the closure of Herstatt was announced, several New York banks with obligations to and from Herstatt on maturing currency spot and forward transactions had already submitted irrevocable instructions to transfer Deutsche marks to Herstatt in Germany in anticipation of receiving dollars from Herstatt at the close of the banking day in New York. But thanks to the time zone difference, when Bank Herstatt suspended all dollar payments at its New York branch – at 10:30am New York time – the U.S. payment system had not yet moved funds for the day. So, the New York banks lost the full value of their Deutsche mark payments and never received the corresponding dollar inflows.[52]

Herstatt's failure was the first of several such failures that put strains on payment systems. Similar settlement problems and concerns occurred during the failures of Drexel Burnham Lambert ("Drexel") in 1990, BCCI in 1991, and Barings in 1995.[53]

(2) CLS Bank

CLS Bank is a DVP agent with an active presence in OTC derivatives clearing and settlement. CLS Bank acts as a DVP agent for currency derivatives and, more recently, for CDS transactions processed through DTCC's Deriv/SERV platform. For CDSs, the DTCC Trade Information Warehouse computes bilateral net

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[49] Exchanges of funds for funds occur through payment-versus-payment or PVP agents. I refer to PVP and DVP Agents interchangeably for simplicity.

[50] *See, e.g.,* Bank for International Settlements, *Report on Netting Schemes* (Basel, 1989), and Bank for International Settlements, *Central Bank Payment and Settlement Services With Respect to Cross-Border and Multi-Currency Transactions* (Basel, 1993).

[51] *See, e.g.,* C. L. Culp and A. M. P. Neves, *A Primer on Securities and Multi-Currency Settlement Systems: Systemic Risk and Risk Management,"* White Paper, Competitive Enterprise Institute (July 1999).

[52] Bank for International Settlements, *Settlement Risk in Foreign Exchange Transactions* (Basel, 1996) (hereinafter "Allsopp Report"), at 6

[53] Allsopp Report, *op. cit.,* at 6-8.

payment obligations across members and submits those payment amounts to CLS Bank for settlement. Participants then process multilaterally netted payment instructions through the CLS Bank, which acts as a DVP Agent for the multilaterally netted cash flows.

The Lehman Brothers failure demonstrated the risk-reducing effects of netting through a DVP Agent. Despite widespread media speculation about the size of the payouts to be exchanged on the then-estimated $350-$400 billion notional amounts of Lehman CDSs, the actual aggregate net payment amount was only a fraction of that size. Of the total estimated Lehman CDS exposure outstanding, $72 billion (notional) was registered in the DTCC Trade Information Warehouse. On October 21, 2008, CLS Bank processed $5.2 billion in net settlements corresponding to that $72 billion notional amount.[54]

During the week of September 15, 2008, when Lehman failed, moreover, CLS Bank settled approximately 4.4 million in foreign exchange transactions with a gross notional value of $26.9 trillion.[55] On September 17, 2008, alone, CLS Bank processed a record of more than 1.5 million payment instructions with a gross value of over $8 trillion. CLS Bank CEO Close commented: "A small percentage of trades were rescinded and that largely depended on what individual arrangements institutions had with their ISDA agreements. The vast majority of Lehman trades were processed smoothly and some of these were for very large amounts....CLS worked exactly as it should do. It took settlement risk out of the market."[56]

Although DVP Agents like CLS Bank eliminate settlement risk, OTC derivatives participants whose transactions are cleared and settled through a DVP Agent still bear "replacement cost risk." Replacement cost risk is the risk that a counterparty defaults when the contract is an economic asset to the non-defaulting party – *i.e.,* the defaulted contract can only be replaced at a net cost to the non-defaulting party.[57]

C. Central Counterparties

Virtually all exchange-traded derivatives today are cleared and settled through a central counterparty (CCP) – *i.e.,* a clearinghouse that interposes itself as the counterparty of record for all transactions. In so doing, the CCP protects trading participants from *both* settlement risk *and* replacement cost losses arising from a counterparty default.

(1) CCP Risk Management and Financial Integrity

Because trading participants whose transactions are cleared and settled by a CCP are essentially exchanging the credit risk of their original counterparties for the credit risk of the CCP, the CCP must maintain financial resources and risk management policies and procedures sufficient to preserve confidence of trading counterparties in the CCP. In addition, most CCPs are shareholder-owned entities

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[54] "DTCC Trade Information Warehouse Completes Credit Event Processing for Lehman Brothers," *Press Release – Depository Trust & Clearing Corp.* (October 22, 2008).

[55] W. Engert and A. Lai, "Bank of Canada Oversight Activities During 2008 Under the Payment Clearing and Settlement Act," *Bank of Canada Memorandum* (2009).

[56] L. Oliver, "CLS Bank: CLS Passes the Lehman Test," *Euromoney* (October 2008).

[57] Even if the non-defaulting firm does not actually need to replace the defaulted contract, it has still lost an asset and incurs an economic mark-to-market loss.

whose equity investors also seek to avoid catastrophic losses. As such, derivatives CCPs have some of the most conservative risk management practices of any participants in the market.

Derivatives CCPs typically rely on a multi-tiered system of risk controls, policies, and procedures designed to manage the credit exposure of the CCP (and its participating members) at a reasonable cost. The system is time-tested and has withstood the failures of major firms (*e.g.,* Drexel, Barings, Refco, Lehman, etc.) and major market disruption events (*e.g.,* the stock market crashes of 1987 and 1989, the European currency crisis of 1992, the Asian currency crisis of 1998, and the ongoing credit crisis).

The primary risk management tools on which typical derivatives CCPs rely include the following:

- ***Clearing-Member-Centric Structure.*** Only "clearing members" have a direct credit relationship to the CCP. All customer transactions or trades by non-clearing-member trading participants must be guaranteed by a clearing member, and that clearing member is liable to the CCP for any outstanding payment obligations that its customers cannot satisfy. Clearing members, in turn, are subject to CCP membership requirements, ongoing credit surveillance and monitoring, capital adequacy requirements, and other risk management protocols. In this manner, the CCP ensures that the only firms to which it has direct credit exposure are those firms over which it has direct oversight and monitoring capabilities.

- ***Initial Margin Requirements.*** Virtually all CCPs require initial margin to be posted as a performance bond for any newly established positions, and all open positions must satisfy minimum margin requirements on an ongoing basis. Non-clearing-member customers must post margin with their clearing members, as well, and clearing members in turn are required to post margin with the CCP for both their customer and house accounts.

- ***Mark-to-Market Resettlements.*** Once or twice each day, all open positions of clearing members (both customer and proprietary) are marked to current market prices by the CCP. Losses on any accounts must be settled with the CCP in cash. In this manner, the CCP ensures that its exposure to the risk of a clearing member default is generally limited to the time between mark-to-market intervals.

- ***Default Resolution Protocols.*** If the financial resources of a clearing member are inadequate to cover any unsettled obligations to the CCP (arising from customer defaults and/or losses in the clearing member's house account), the clearing member may be declared in default by the CCP. If the default arises from a clearing member's house account, the clearing member's customer accounts are transferred to other non-defaulting clearing members. As the failures of firms like Drexel, Barings, Refco, Lehman, and others have demonstrated over time, the ease with which customer accounts can be transferred to non-defaulting clearing members helps preserve confidence and market integrity in times of duress or crisis.[58]

- ***Risk Capital.*** Following a clearing member default, the CCP assumes any net unsettled obligations and open positions from the defaulting clearing member. Most CCPs then attempt to hedge or liquidate those positions in a timely and non-destabilizing manner. To cover any losses arising from that liquidation or any other remaining obligations of the defaulting clearing member, CCPs rely on a

[58] CFTC funds segregation regulations are also viewed by many as helping greatly to facilitate the ease with which customer accounts can be transferred from a defaulting clearing member to a non-defaulting member.

combination of shareholder, clearing member, and external resources collectively referred to as the "risk capital structure" of the CCP. Virtually all CCPs, for example, require clearing members to make initial and potential top-up contributions to a clearing default fund. In addition, some CCPs have contingent risk capital available to cover default-related losses. Contingent capital includes assessments rights the CCP has on its clearing members, as well as financial guaranties provided to the CCP by (re-)insurance companies.[59]

(2) Recent Experiences with OTC-Cleared Derivatives and CCPs

Clearing and settling OTC derivatives through CCPs was already becoming popular well before the advent of the financial crisis in mid-2007. In the late 1990s, for example, OM Group in Stockholm was providing CCP services for OTC interest rate derivatives transactions (both plain vanilla and customized).[60] Some of the most significant other CCPs for OTC-cleared derivatives are discussed below.[61]

LCH.Clearnet. One of the earliest entrants into OTC derivatives clearing was London Clearing House (LCH) in 2001, now called LCH.Clearnet. LCH.Clearnet's SwapClear is a CCP for plain vanilla interest rate swaps. In 2008, SwapClear was the CCP for 228,000 swap transactions across 14 currencies.[62] Although SwapClear has to date been available as a CCP only to a relatively small group of about two dozen banks, LCH.Clearnet has announced plans to make the CCP facility available to a broader group of firms by the fourth quarter of 2009.[63]

The failure of Lehman Brothers was an important test for LCH.Clearnet's SwapClear. Margin collected by LCH.Clearnet from Lehman was sufficient to ensure that neither the CCP nor its clearing members incurred any default-related losses.[64]

ICE OTC Clearing. ICE began offering OTC-cleared derivatives solutions for energy products in 2002 following the failure of Enron (and EnronOnline). In addition to energy products, ICE now also offers OTC clearing for certain agricultural derivatives and for selected CDSs.

As Figure 2 indicates, ICE has cleared significant amounts of OTC energy derivatives in the past few years. The percentage of OTC energy derivatives traded on the ICE platform that are submitted to ICE Clear is now over 95%.

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[59] Over $1bn in clearinghouse guaranties were provided through 2006 to support derivatives and securities clearinghouses. Many of the insurance company providers of these facilities, however, experienced significant losses during the credit crisis and have withdrawn from the underwriting of these coverage lines as a result of their own difficulties. Nevertheless, there is some evidence that banks and securitization agents may be stepping in to fill the remaining demand for synthetic risk capital.

[60] Parkinson Report, *op. cit.*, at 26.

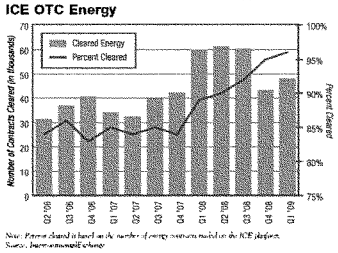
[61] Will Acworth and Joanne Morrison wrote an article for the June 2009 issue of *Futures Industry* magazine that provides an informative comparison of alternative OTC-cleared derivatives CCPs. With their permission, the sections below rely heavily (albeit not exclusively) on their article. *See* W. Ackworth and J. Morrison, "The Many Flavors of OTC Clearing," *Futures Industry* (June 2009).

[62] Ackworth and Morrison, *op. cit.*

[63] "LCH.Clearnet to Offer SwapClear to the Buy Side," *Risk News* (May 29, 2009).

[64] Ackworth and Morrison, *op. cit.*

Figure 2: ICE OTC-Cleared Energy Products
ICE OTC Energy



SOURCE: Ackworth & Morrison (2009)

ICE's OTC-cleared products are booked into one of four ICE CCPs – ICE Clear U.S., ICE Clear Europe, ICE Clear Canada, and ICE Trust (the stand-alone entity for CDS clearing) – either directly through ICE's OTC trading platform or through ICE Block.

OTC derivatives that are cleared by ICE as a CCP remain OTC derivatives once booked into the clearinghouse. As such, they are not fungible and cannot be offset with exchange-traded derivatives at ICE Futures. OTC-cleared derivatives are, however, eligible for portfolio margining with exchange-traded instruments.

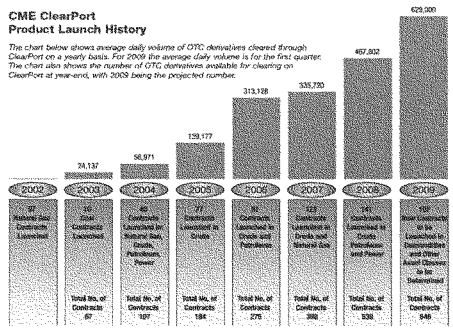
CME ClearPort. The New York Mercantile Exchange – part of CME Group since 2008 – first offered OTC energy swap clearing through its ClearPort facility in 2002. ClearPort is estimated to account for about 9% of CME Group's total 2009 revenue.[65]

As shown in Figure 3, ClearPort offers OTC clearing for about 650 products. These products include energy and agricultural contracts, as well as plans for the CME to clear CDSs through ClearPort when its CDS clearing initiative goes live. Unlike ICE, most of the CME's OTC-cleared products are converted into equivalent futures contracts when rebooked into the CME clearinghouse.[66]

[65] Ackworth and Morrison, *op. cit.*

[66] There are some exceptions, such as the grain swaps that can be booked into the CME Clearinghouse through ClearPort.

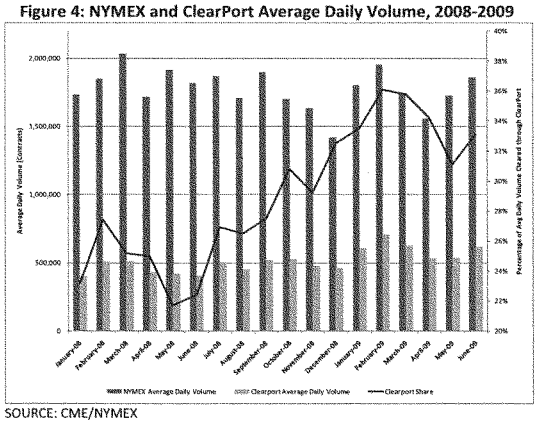
Figure 3: CME ClearPort OTC-Clearing History



SOURCE: Ackworth & Morrison (2009)

As Figure 4 shows, moreover, ClearPort activity has routinely been between 20% and 40% of total NYMEX average daily trading volume since 2008.

Figure 4: NYMEX and ClearPort Average Daily Volume, 2008-2009

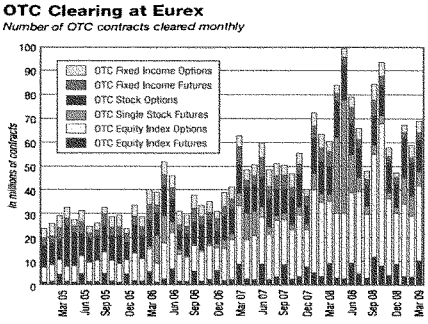


SOURCE: CME/NYMEX

Eurex. Nearly half the total volume of Eurex consists of OTC-cleared derivatives.[67] Most of the OTC products cleared through Eurex are equity and equity index futures and options, and futures and options on European government bonds. Figure 5 shows the number of OTC derivatives cleared monthly by Eurex since early 2005. The bulk of the recent activity has been in OTC equity options.

[67] Ackworth and Morrison, *op. cit.*

Figure 5: Eurex OTC-Cleared Derivatives Volume, 2005-2009



SOURCE: Ackworth & Morrison (2009)

To date, Eurex has focused on providing CCP services for OTC exchange-traded "look-alikes" – *i.e.,* OTC products that have virtually identical terms to the features of comparable exchange-traded derivatives. Eurex has announced plans to provide CCP services in the future for more customized OTC derivatives.

Other Initiatives. NYSE Liffe launched the Bclear OTC clearing facility in 2005. Primarily an equity derivatives CCP, Bclear has cleared more than 400 million equity futures and options since its inception. These contracts have included equity index products, as well as futures and options on over 1,000 stocks listed in over 20 countries.[68]

A number of other CCPs also either already have a presence in the OTC-cleared derivatives space or are planning to enter the business shortly. Examples include SGX's AsiaClear, the International Derivatives Clearing Group, and IMAREX/NOS Clearing.

D. Benefits and Costs of OTC Derivatives Clearance and Settlement Through CCPs

Although CCP clearing and settlement of OTC derivatives has become more prevalent, OTC clearing has been more popular with some products and firms than with others. Indeed, the fact that not all OTC derivatives have flooded into a CCP is a strong indication that there are both costs and benefits of OTC clearing. Some of those benefits and costs are reviewed below.

(1) Benefits of OTC Clearing Through a CCP

Reduced Counterparty Credit Evaluations and Ongoing Credit Exposure Monitoring. By interposing a single counterparty between all buyers and sellers, a CCP facilitates "counterparty anonymity" and reduces the need for credit evaluations of numerous different trading counterparties on an ongoing

[68] Ackworth and Morrison, *op. cit.*

basis. That separation of price and credit risks has long been recognized as a significant benefit of organized futures exchanges and CCPs.[69]

Transparency and Consistency of Pricing for Margin and Funds Settlements. OTC-cleared derivatives are subject to margin requirements and cash resettlements that are based on mark-to-market prices determined by the CCP. The prices used by the CCP for calculating clearing balances and payment obligations, moreover, are applied in a consistent manner across firms – *i.e.,* the same contract price is applied to all like positions and accounts.

CCPs establish standard procedures for marking contract prices to market and reduce operational risks by establishing efficient mechanisms for monitoring and ensuring compliance with margin requirements. The aggregation of pricing information in the clearing house also enhances financial safeguards by reducing disputes about collateral valuation. Similarly, clearing house standardization of OTC-cleared contracts facilitates the establishment of collateral requirements by reducing the scope of idiosyncratic contract terms.

In bilateral OTC markets, by contrast, collateral requirements are based on mark-to-market prices that sometimes differ significantly across market participants. In the event of a dispute between counterparties, the "calculation agent" in the OTC derivatives contract usually gets to determine the price used for determining collateral and settlement values.[70]

Given the non-transparent and decentralized nature of the OTC market, significant disagreements can occur about collateral requirements, often arising from disputes over the prices used to calculate current mark-to-market values. The lack of transparency in CDS pricing, in particular, has been well-recognized by market participants.[71]

During 2007 and 2008, a lack of pricing transparency and market liquidity contributed to disputes among CDS market participants about the valuation of CDS positions for the purpose of enforcing or disputing collateral calls. Such disputes were in some cases highly disruptive and led to significant unexpected liquidity shocks.

As discussed in Section III-A, several clearing and settlement infrastructure providers have begun to provide exposure and collateral reconciliation services for OTC derivatives portfolios. Those services provide competition to CCPs for realizing this particular benefit of centralized clearing and settlement.

Monitoring of Multilateral Exposures and Correlation Risks. CCP clearing facilitates the monitoring of market participants' aggregate activity within the CCP across products, thereby enabling the clearinghouse to evaluate more effectively the risks faced by individual market participants. In other words, the CCP can function in part as a "delegated risk manager" for its clearing member participants.[72]

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[69] *See, e.g.,* L. G. Telser, "Why There are Organized Futures Markets," *Journal of Law and Economics* 24(1) (April 1981).

[70] *See* CPSS 2007 Report, *op. cit.*, at 35-38.

[71] *See, e.g.,* Credit Suisse, *Financial Exchanges and Market Structure* (September 29, 2008).

[72] C. L. Culp and A. M. P. Neves, "Risk Management by Securities Settlement Agents," *Journal of Applied Corporate Finance* 10(3) (Fall 1997).

This delegated monitoring capability is, of course, limited to the positions cleared through the CCP and does not take into account non-derivatives positions. As such, CCP risk monitoring is not a substitute for internal or outsourced enterprise-wide risk monitoring.[73]

Default Resolution. Because OTC-cleared derivatives are negotiated with a CCP, the transactions can be more easily offset or unwound following a clearing member default. As explained in Section III-C, the CCP inherits the remaining open positions of any defaulting clearing member and then typically proceeds to liquidate or hedge them as quickly as possible in a non-destabilizing manner. For OTC-cleared derivatives that are converted into futures inside the CCP, the offset, liquidation, or hedging of those positions is relative straightforward (as long as the market itself is reasonably stable).

OTC-cleared derivatives that remain OTC contracts subject to master agreements once inside the CCP, however, are non-fungible and cannot be offset against exchange-traded positions.[74] Indeed, OTC derivatives documented under the standard terms of an ISDA Master Agreement can only be unwound or assigned/novated to another party with the permission of the original trading counterparty.[75] These restrictions on default resolution in the underlying contractual documentation can pose challenges for CCPs in resolving the positions of defaulted clearing members.

Yet, CCPs are likely to have more success resolving the open positions of defaulted clearing members than the original trading counterparties would have. When a counterparty is experiencing financial distress and *needs* to get out of a swap or make an unanticipated early termination payment, the non-defaulting party usually has "bilateral monopoly bargaining power" that it can exert to the detriment of the defaulting firm.

Although this issue has received considerable attention in the wake of the credit crisis, the issue itself is hardly new. When Drexel Burnham Lambert Group, Inc. (DBL Group) filed for chapter 11 status on February 13, 1990, several of DBL Group's subsidiaries with active OTC derivatives portfolios did *not* file for bankruptcy. One such subsidiary – DBL Trading Corp. – had a portfolio of about $50 billion in foreign exchange and commodity derivatives at the time. Not surprisingly, the decision was made to try and liquidate the portfolio as rapidly as possible. Although a large portion of the portfolio had been closed out by the end of February 1990, not all of DBL Trading's counterparties were cooperative and some attempted to extract above-market spreads and prices for early termination payments.[76]

Similarly, the failure of the Bank of New England N.A. (BNE) on January 6, 1991, was widely anticipated in the market, and BNE's traders had spent nearly a year trying to reduce the bank's $36 billion (notional) OTC derivatives portfolio before the actual bank closure. Traders reported numerous counterparties trying to extract "nuisance fees" from BNE, which reportedly led to millions of dollars of losses for the bank.[77]

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[73] *See, e.g.,* C. L. Culp, *The Risk Management Process* (Wiley, 2001).

[74] OTC derivatives can be *hedged*, but unless the hedge is executed with the same counterparty as the original transaction the hedge simply creates a second credit exposure for the firm.

[75] Standard master agreements do provide for some events that allow (or force) early terminations of derivatives, but in the absence of one of these events or an event of default the counterparties are stuck with each other unless they both agree to end the contract early.

[76] C. L. Culp and B. T. Kavanagh, "Methods of Resolving Over-the-Counter Derivatives Contracts in Failed Depository Institutions: Federal Banking Law Restrictions on Regulators," *Futures International Law Letter* 14(3-4) (May/June 1994), 1-19.

[77] *Id.*

When Development Finance Corporation of New Zealand (DFC) failed in 1989, by contrast, the derivatives portfolio was resolved in a manner that managed to avoid problems resulting from bilateral monopoly bargaining power. DFC (with the approval of the Reserve Bank of New Zealand) engaged JPMorgan as an advisor and sent then-ISDA Chairman Mark Brickell of Morgan's Derivatives Strategy group to New Zealand to shepherd counterparty negotiations during the resolution of the portfolio. Although DFC was itself defunct, counterparties were concerned about preserving their reputations with JPMorgan (at that time one of the largest swap dealers) and the New Zealand government. As a result, the portfolio was resolved with minimal problems.[78]

CCPs that inherit the open OTC positions of defaulting clearing members will be in a situation much more similar to DFC than Drexel or BNE. Assuming the counterparties wish to continue doing business with the CCP, CCPs will likely experience fewer problems in unwinding OTC-cleared swaps at fair prices or assigning/novating them to non-defaulting clearing members. Indeed, some CCPs may choose to require that clearing members utilizing OTC-clearing features of the CCP *pre-agree* to participate in any assignments or auctions of swap portfolios from defaulting clearing members.

At the time of Lehman's failure, about $9 trillion (notional) in interest rate swaps had been guaranteed by LCH.Clearnet's SwapClear CCP facility. After Lehman defaulted, LCH.Clearnet first hedged the market risk of the portfolio and then competitively auctioned the swaps to other SwapClear members. Within a month after Lehman's failure, the positions had been resolved with other SwapClear members.[79]

Nevertheless, especially for illiquid products or derivatives in markets experiencing ongoing disruptions, CCPs may find it time-consuming and difficult to hedge open positions, and that could be the source of potentially significant losses until the portfolio is ultimately resolved.[80]

Efficient Utilization of Risk Capital Through Default Risk Mutualization. If a derivatives dealer or large end user incurs losses on an OTC derivatives contract in excess of any collateral posted, the remaining financial resources of the firm are all that remain to cover the open payment obligation. In other words, dealers backstop their obligations with their own capital. If the swap participant incurs correlated losses that erode its capital base rapidly, the firm itself could default.

Losses in excess of margin at a defaulting CCP clearing member are absorbed by the risk capital structure of the CCP. As noted earlier, this may include some of the CCP's own financial resources, external risk capital (*e.g.*, clearinghouse guaranties), and a mutualized risk capital layer in which other clearing members cover losses arising from defaulted clearing members.

Clearing default funds financed by clearing members are economically equivalent to "industry mutuals" in the traditional insurance arena. In such mutuals, all participants make initial contributions. A large loss by any individual member in excess of its margin (*i.e.*, deductible) is then covered by payments from the mutual. As long as risk exposures are imperfectly correlated across clearing members and positions, a smaller amount of *total* risk capital must be collected from individual members to achieve a given

[78] Indeed, only one counterparty – Security Pacific – was uncooperative during the DFC resolution. *See* Culp and Kavanagh, *op. cit.*

[79] Ackworth and Morrison, *op. cit.*

[80] *See, e.g.*, CPSS 2007 Report, *op. cit.*, at 27.

desired level of risk coverage *vis-à-vis* a situation when all members had to provide their own risk capital to cover each of those potential losses in isolation.[81]

(2) Costs and Barriers to OTC Clearing Through a CCP

CCP clearing for derivatives may not always be the most desirable form of credit risk management either from a public policy perspective or for specific market participants. Below are some of the reasons why.

Limited Gains for Some Swap Participants from CCP Credit Exposure Monitoring. The anonymity benefit of CCP-cleared futures trading is usually largest for individual traders or firms transacting with multiple unknown trading partners, as on the floor of an exchange. For large financial institutions active in OTC derivatives, however, the counterparty anonymity benefit of CCP clearing for OTC derivatives will be less pronounced. Such institutions likely already have ongoing relationships, open credit lines, and active credit exposure monitoring for most of their OTC counterparties. As such, the *marginal* cost of ongoing bilateral credit exposure monitoring that a CCP would help such firms avoid could be relatively small.

Valuation Approach and Pricing Sources. As noted in the previous section, a benefit to OTC clearing through a CCP is the CCP's use of a single price to compute multilateral clearing balances and facilitate flows of funds for a given contract. Yet, if market participants disagree with the pricing source(s) used by the CCP, they may be reluctant to participate. Especially for relatively illiquid products in which dealers have invested considerable resources in their own pricing models, sharing those models with the CCP to contribute to the CCP pricing algorithm – or even just sharing prices themselves – may also generate opposition amongst some would-be clearing members.

Margin Modeling. Participants in an OTC-cleared derivatives CCP must also agree with the CCP's approach for modeling risk and computing clearing member margin requirements. Margin requirements set too low will generate concerns about the financial integrity of the CCP, whereas excessive margin requirements will be viewed as too high a cost to pay for CCP clearing. Even if the dollar amounts of margin requirements are not at issue, clearing members will presumably also want to be comfortable with the basic margin calculation methodology. A lack of comfort with the CCP's risk measurement methodologies could erode confidence in the overall risk management practices of the CCP.

Margin and Liquidity Risk. During normal market conditions, the cost of posting margin or collateral is relatively low for large financial institutions with easy access to debt markets. Because margin and collateral can be posted in interest-bearing assets, the main cost of margin and collateral is the opportunity cost of possibly holding more low-risk bonds or cash than the firms might otherwise want.[82]

The cost of margin and collateral can be much higher during periods in which derivatives participants are liquidity constrained. In that sense, the most significant cost of margin and collateral is the potential

[81] The cost to clearing members of the mutualized risk capital backstopping losses in excess of margin at a CCP thus is the sum of (i) the cost of any external risk capital (*e.g.*, clearinghouse guaranties) plus (ii) the weighted cost of capital for clearing members contributing to the default fund. Whether or not that cost exceeds the cost of capital for a firm backing a bilateral OTC derivatives contract is an empirical question.

[82] *See, e.g.*, L. G. Telser, "Margins and Futures Contracts," *Journal of Futures Markets* 1 (Summer), 225-253.

for firms to face margin or collateral calls at a time when their liquid assets are already heavily depleted and their access to short-term margin loans is limited.[83]

The liquidity risk of collateral on OTC derivatives is significantly reduced by bilateral netting. Cross-product bilateral netting under a single master netting agreement, moreover, can encompass a wide range of financial transactions between dealers, thus potentially adding to these efficiency gains.

The comparable gains from netting margin requirements for CCP-cleared derivatives depend on the exact mechanism by which portfolio margin requirements are calculated by the CCP. The Standard Portfolio Analysis of Risk (SPAN®) margin system used by many futures exchange clearinghouses, for examples, allows margin offsets and reductions for certain offsetting positions. Long Eurodollar futures and short Eurodollar futures in the same expiration month, for example, are offset so that total margin required is based only on the net position. Additional offsets may be permitted for other contracts depending on the degree of correlation between products – *e.g.,* long Eurodollars and short Eurodollars with different maturities.

A crucial distinction between OTC collateral and CCP margin, however, is the frequency with which mark-to-market collateral calls occur and what triggers them. In CCP regimes, positions are marked to market and resettled at least twice daily. In OTC derivatives, mark-to-market resettlement intervals are determined by the counterparties to individual transactions but are in general less frequent than twice-a-day. Collateral movements on OTC derivatives, moreover, can be triggered by credit events (*e.g.,* downgrades) that accompany increases in exposure. If the contract is not re-settled frequently and subject to those kinds of discrete collateral calls, the resulting collateral movements could be significantly larger than twice-daily CCP margining.

The timing of margin and collateral flows has both costs and benefits for different derivatives market participants. For OTC derivatives dealers, the more frequent and often smaller margin flows probably expose these firms to lower risks of precipitous liquidity shocks of the kind we saw in 2008. Yet, for end users of derivatives with limited debt capacity and high leverage, the cash flow volatility of futures and other CCP-cleared products can be disruptive to treasury and cash management operations. At the other extremely, well-capitalized and highly-rated corporate end users with easy access to unsecured borrowing may find mandatory margin requirements to be unnecessarily burdensome.[84]

Multilateral Close-Out Netting Efficiencies and Clearing Member Capitalization. Following an event of default, close-out netting allows counterparties to net their open positions. Whether or not bilateral cross-product netting is more or less efficient and consistent with financial stability than multilateral netting by a CCP again depends on the nature of the products and the rules of the CCP.

At a CCP, netting is *multilateral* because the CCP is counterparty to all transactions. Following a clearing member default, the CCP essentially inherits the unsettled obligations and open positions of the defaulting member. At virtually all CCPs, the house account positions of the defaulting clearing member can be netted, thereby reducing credit exposure and preventing cherry-picking in the same manner as described for OTC derivatives. Some CCPs go even further. If a clearing member defaults because of

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[83] *Id.*

[84] *See* Statement for the Record by Timothy Murphy, *House Financial Services Subcommittee on Capital Markets, Insurance, and Government-Sponsored Enterprises – Hearing on the Effective Regulation of Over-the-Counter Derivatives Markets* (June 9, 2009).

losses in its customer-segregated accounts, the CCP can sometimes net positions *across customers* – including the customers that did not cause the default.

The netting and risk-reducing efficiency of OTC clearing is an empirical question. If OTC derivatives on a single asset class (*e.g.,* CDSs) are moved into a CCP, the loss of *bilateral* netting efficiency must be compared with the gains from *multilateral* netting efficiency.[85] Such comparisons of capital efficiency, moreover, depend on a number of different issues and can vary across swap participants – *e.g.,* cross-product correlations in bilateral OTC portfolios *vis-à-vis* cross-product correlations in the multilaterally OTC-cleared portfolio, the degree to which cross-product netting efficiencies can be realized within and across CCPs through portfolio or cross-margining agreements, the structure of the CCP's clearing default fund (*e.g.,* CCP clearing default funds that mutualize default-related losses across multiple types of derivatives products are more likely to provide capital relief to market participants than CCPs which do not commingle their loss guaranties across products), the economic capital allocation model of the swap participant (*e.g.,* if a swap dealer allocates risk capital to the 99th percentile loss in a portfolio, the change in risk capital resulting from the migration of part of the portfolio to a CCP depends on the change in the 99th percentile loss), etc. On the whole, it is difficult to make general conclusions about the efficiencies that can be realized by combining clearing for diverse products in a single clearinghouse.

Excessive Standardization. CCP clearing requires at least some degree of standardization in the clearing process. Yet, OTC clearing initiatives to date have shown a capacity to provide coverage for a wide range of products. The more than 600 OTC-cleared energy swaps offered by the CME through its ClearPort facility, for example, far exceeds the number of listed exchange-traded energy derivatives.

Nevertheless, customized OTC transactions – the original *raison d'etre* of the OTC derivatives market – may pose too many practical problems for CCPs to clear. Some pundits, moreover, have obscured some of the issues here by confusing "customized" with "complicated." A grain elevator that wants to manage the risk of grain price fluctuations at specific delivery points on specific dates, for example, may be unable to do so through OTC-cleared agricultural products – not because the grain elevator's exposure is particularly complex, but just because it is date- and location-specific. Being forced to use an OTC-cleared swap with standardized dates and delivery points thus would give rise in this example to basis risk, and the grain elevator might well opt to do a customized OTC transaction *offshore* in lieu of taking the basis risk in the OTC-cleared swap.

Adverse Selection. To the extent that CCPs try and provide clearing and settlement services for non-standard or complex OTC derivatives, CCP risk managers are likely to be at a serious informational disadvantage to clearing members.[86] That will complicate risk management and make it more difficult for the CCP to police the market and preserve the financial integrity of the clearinghouse.

Consider, for example, a large clearing member participating in one of the recent CDS clearing initiatives. Now imagine the clearing member is clearing customer and proprietary positions on CDSs based on *its own debt*. CCPs will likely have to institute rules and procedures to deter such activity.

Even when the information clearing members have does not pertain to their own financial condition, however, dealers likely have much better information about the pricing and risk of complex OTC

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[85] *See* D. Duffie and H. Zhu, "Does a Central Counterparty Reduce Counterparty Risk?" Rock Center for Corporate Governance Working Paper No. 46 and Graduate School of Business Research Paper No. 2022, Stanford University (May 4, 2009).

[86] *See, e.g.,* C. Pirrong, "The Clearinghouse Cure," *Regulation* (Winter 2008-2009).

transactions. And the CCP knows that. The CCP thus will be (or at least will perceive itself as being) at an informational disadvantage to clearing members. Known as an "adverse selection,"[87] the CCP will essentially be forced to assume the worst-case information asymmetry and will have to compensate with excessively conservative margin requirements, capital requirements, and other risk management policies and procedures. Added up, all those extra costs could make OTC clearing uneconomic for certain dealers and products.

IV. Problems With Mandated OTC Clearing and Settlement

The Treasury Plan would mandate the CCP clearing and settlement of standardized OTC derivatives. In so doing, however, the Treasury Plan might well actually increase the fragility of the financial system by creating new institutions that regulators and politicians believe are too big or too interconnected to fail. At the same time, mandated clearing and settlement could impose significant costs on various market participants and interfere with financial innovation. As former Federal Reserve Governor Randall Kroszner has observed:

> My reading of the history of CCP clearing is that it teaches us that private-market regulation can be effective for achieving the public policy goal of safety and soundness and broader financial stability. Government regulation and oversight should seek to provide an environment in which private regulation can be most effective. Government regulation should not place unnecessary barriers – domestically or internationally – in the path of the future evolution of private-market regulation. Innovation should be fostered, and regulatory protectionism should be rejected.[88]

Some of the most important problems associated with mandatory OTC clearing are reviewed in the sections that follow.

A. Excessive Concentrations of Risk in CCPs

Shifting significant amounts of derivatives exposures into CCPs is only risk-reducing to the extent that the CCPs themselves provide higher-quality counterparty exposures than alternative bilateral credit risks or credit risks associated with DVP Agents. In other words, mandated CCP clearing of OTC derivatives puts all the credit exposure of the cleared products in a few places. And as a 1992 report by the BIS indicated, "The most commonly cited events capable of triggering systemic problems were the default of [a large dealer] and clearing and settlement failures, including exchange shut-downs."[89]

To date, the major CCPs around the world have demonstrated remarkable skill and conservatism in managing risk. At the moment, derivatives participants make their own individual choices about the credit risk of their private counterparties *vis-à-vis* CCPs. And in fact, prudential risk management and financial integrity are two of the main ways that CCPs compete with one another and try to attract OTC clearing volume. In a mandated OTC clearing world, however, those competitive forces will be diminished.

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[87] *See, e.g.*, G. A. Akerloff, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *Quarterly Journal of Economics* 84(3) (August 1970).

[88] R. S. Kroszner, "Central Counterparty Clearing: History, Innovation, and Regulation," *Federal Reserve Bank of Chicago Economic Perspectives* (4Q/2006), at 38 and 40.

[89] Promisel Report, *op. cit.*, at 19.

With the increased systemic importance of CCPs in a world of mandated OTC clearing, moreover, regulatory scrutiny of CCPs will doubtless increase. That could impose significant additional costs on CCPs – costs that market participants will eventually bear and that could stifle derivatives activity. The combination of higher regulatory compliance costs and increased risk exposures could also increase the cost of raising equity capital for CCPs. That, in turn, would make it even more expensive for CCPs to maintain sufficient equity to preserve target leverage ratios and credit quality.

B. Moral Hazard

During the credit crisis, several notable interventions and bailouts have already given credence to the notion that the government does indeed view some firms as too big to fail. Mandating that a significant portion of OTC derivatives be cleared by a regulated and recognized CCP could easily concentrate credit risk *so much* in those CCPs that they become regarded *by market participants* as too big to fail. And that, in turn, could give rise to a moral hazard problem in which derivatives participants begin to manage their risks less prudently because of an expectation that derivatives CCPs would be bailed out.

The Bank for International Settlements issued a stern warning about this potential problem in 1990:

> Central banks also have a common interest in seeking to ensure that their efforts to limit systemic risk do not lead to undesirable risk taking by banks. Banks' incentives to control the riskiness of their activities could be weakened if a perception that central banks will absorb risks or take action to limit their systemic consequences is generated. Indeed, as the perceived likelihood of central bank support grows market participants may engage in increasingly risky activities. The design and operation of private interbank netting and settlement systems may be particularly susceptible to this problem of "moral hazard". The number of participants in such systems and the scope of their activities may lead the market to presume that central banks would act to avert a system's settlement failure. As a result, the moral hazard involved in privately-operated interbank netting systems is that, because of the possible presumption that central bank support will be forthcoming, such systems may be designed without sufficient regard to the need for built-in mechanisms and incentives to control risks and deal with the consequences of a settlement failure.[90]

Indeed, mandated clearing at a *single* government-sanctioned CCP (as is being discussed by some) could create a systemic risk choke point and is an invitation to severe moral hazard problems.[91]

C. Financial and Liquidity Pressures on Settlement Banks and Payment Systems

Large and frequent flows of funds are associated with derivatives CCPs to cover debits and credits arising from mark-to-market pays and collects, final settlements at contract maturities, premium paid or collected on options, and initial margin posted.[92] But these flows of funds do not always flow through the CCP itself. Whereas some CCPs are permitted to maintain reserve balances in nostro accounts of the

[90] Lamfalussy Report, *op. cit.*, at 9.

[91] In addition, combining clearing for diverse products in a single clearinghouse is not necessarily capital-efficient given the large volume of cross-border swap activity that might be beyond the reach of U.S. mandatory clearing proposals and left outside the CCP.

[92] Initial margin can usually be posted in securities instead of cash.

local central bank and have direct access to the national payment system in their countries of domicile, other CCPs (including almost all CCPs in the United States) must rely instead on correspondent or settlement banks to facilitate funds transfers.

The BIS's Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions explicitly warned of this risk in November 2004: "A CCP should employ money settlement arrangements that eliminate or strictly limit its settlement bank risks, that is, its credit and liquidity risks from the use of banks to effect money settlements with its participants. Funds transfers to a CCP should be final when effected."[93]

In the United States, Fedwire is a RTGS payment system (with intra-day credit and daylight overdrafts), but most U.S. CCPs are not banks and thus cannot move central bank money through Fedwire directly. Mandated clearing for all OTC derivatives (even with multilateral cross-product netting) thus could increase CCP throughput and associated flows of funds by enough to strain the banking and payments system considerably if settlement banks are themselves also under financial pressures.

D. Discouraging Innovation in Clearing and Settlement Product Offerings

OTC derivatives clearing and settlement have many different facets that can vary significantly across the products being cleared and the structure of the CCP clearinghouse. At present, CCPs compete for business by adopting rules that try to balance a need for financial integrity against market participants' desires for certain service offerings. Consider, for example, some of the commercial issues with which market participants and CCPs have struggled in OTC derivatives clearing:

- Should OTC-cleared derivatives be rebooked into CCPs as futures contracts or left as OTC contracts?
- How should OTC-cleared derivatives that do not resemble existing exchange-traded products be margined?
- Should OTC clearing be available to only derivatives dealers or to end users as well?
- Should different policies, procedures, and risk management practices be applied to clearing members based on whether they clear only exchange-traded derivatives, only OTC derivatives, or both?
- Should the CCPs risk capital structure provide a commingled backstop to all cleared transactions, or should mutualized default risk protections be segregated by product type and/or clearing member?
- Will CCPs be able to reject the clearing and settlement of certain trades by certain market participants?

Without non-CCP clearing and settlement as an alternative, mandatory OTC clearing could stifle and inhibit the competitive process by which CCPs address issues like those above.

E. Legal and Regulatory Uncertainty Redux

If new regulations mandate clearing for certain OTC products but not others, significant legal and regulatory uncertainty could arise regarding the selection of those products for which OTC clearing is required. The Treasury Plan, for example, proposes mandatory clearing for "standardized OTC

[93] Committee on Payment and Settlement Systems & Technical Committee of the International Organization of Securities Commissions, *Recommendations for Central Counterparties* (Bank for International Settlements & International Organization of Securities Commissions, November 2004), at 35. (hereinafter "CPSS-IOSCO Report")

derivatives." That, of course, begs the question of what is "standardized." As the law firm Mayer Brown has commented:

> What is not clear is what parameters would establish whether a product is standardized or, once that is determined, which contracts are to be cleared via CCPs, traded on an electronic trading platform or quoted on a regulated exchange. There is no mention of who—market consensus, individual participants or a regulator—will determine whether a derivative is standardized. It is also unclear whether there will be a product-based approach for making this determination or whether the determination may vary based upon counterparty participant.[94]

Recall from Section II-A that U.S. derivatives regulation has already been plagued by decades of jurisdictional infighting between the SEC, CFTC, and other regulators and by litigation over the legal and regulatory classification of certain products. Much of that controversy in the 1980s and 1990s already surrounded the issue of whether or not certain products were "illegal off-exchange futures contracts." And the degree to which a product was standardized was indeed one of the historical tests for assessing the legal and regulatory status of a product.[95] Mandating clearing (and exchange trading) for "standardized" OTC products is sure to resurrect those and other related issues.[96]

F. Perverse Incentives for Financial Innovation

Even if the criteria are clearly spelled out for which standardized products are subject to mandatory CCP clearing, financial engineers will continue to develop new products that test the boundaries of these types of regulations.[97]

In addition, the Treasury Plan proposes that: "CCPs must impose robust margin requirements and other necessary risk controls and ensure that customized OTC derivatives are not used solely as a means to avoid using a CCP. For example, if an OTC derivative is accepted for clearing by one or more fully regulated CCPs, it should create a presumption that it is a standardized contract and thus required to be cleared."[98] In this situation, certain CCPs would have a strong incentive to accept OTC derivatives for clearing in order to attract the new business.

Several of the major derivatives CCPs are largely owned and dominated by some of the largest OTC derivatives dealers. For those dealers, shifting OTC derivatives into a CCP that they themselves own and operate – and which their own capital supports – is not much different from the status quo – the same capital backs default-related losses whether incurred through the CCP or bilaterally. As such, dealer-dominated CCPs might be willing to provide CCP clearing and settlement services for products that non-

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[94] "OTC Derivatives – In the Crosshairs of U.S. Regulatory Change," *Mayer Brown Securitization Update* (May 19, 2009).

[95] *See* Russo and Vinciguerra, *op. cit.*, and Culp (1995), *op. cit.*

[96] To the extent that certain OTC derivatives played a role in exacerbating the subprime-turned-credit crisis, moreover, those derivatives were *not* the "standardized" derivatives that would be subject to mandatory exchange trading and clearing.

[97] Most financial innovations, after all, occur in response to unexpected changes in regulation. *See* M. H. Miller, "Financial Innovation: The Last Twenty Years and the Next," *Journal of Financial and Quantitative Analysis* 21(4) (December 1986).

[98] Treasury Plan, *op. cit.*, at 47.

dealer-dominated CCPs would prefer to avoid. That, in turn, would create a serious problem for OTC dealers that are not owners of the CCP. They would be left unable to settle those derivatives on a bilateral basis, and thus would have to choose between the more conservative risk management requirements (*e.g.*, higher margin) of non-dealer-dominated CCPs or participate in the CCP dominated by their competitors – no doubt at a steep price. In the extreme, one might even imagine this regulatory standard might actually encourage collusion amongst dealer-backed CCPs and their constituent dealer owner/members.

G. International Competitiveness Considerations

Mandating OTC clearing for certain products must also be considered in the context of international competitiveness. OTC derivatives users wishing to avoid mandatory CCP usage could simply pursue bilateral contracting in other jurisdictions with a secure, clear legal and regulatory infrastructure but that do not adopt such measures. That could adversely impact the competitiveness of the U.S. financial services industry.

U.S. non-financial corporate users of derivatives and institutional investors could also be adversely impacted by selectively mandated CCP derivatives clearing. If corporations and asset managers in foreign regimes are able to transact with fewer strictures and in an environment more conducive to clearing and settlement innovations, U.S.-based firms will suffer.

V. Mandatory Exchange Trading for Standardized OTC Derivatives

Another part of the Treasury Plan seeks to force the trading of all "standardized OTC derivatives" in "regulated and transparent venues."[99] Yet, mandated exchange trading for "standardized OTC derivatives" is antithetical to the normal process by which financial products and markets tend to evolve over time. Most financial and commercial transactions begin as relatively customized bilateral transactions and then gradually evolve toward more standardized, homogenous contracts. Increased standardization then gives incentives for exchanges to provide organized venues for trading. The process by which financial products evolve from customized bilateral deals into more standardized off-exchange deals and then eventually move onto organized trading markets is known as "commoditization."[100]

Contracts that commoditize, moreover, tend to spawn further innovations and evolutionary changes in the earlier more customized contracts. Innovation that begins with customized bilateral transactions thus tend to evolve into more standard products traded on organized markets, which in turn begets further off-exchange innovation and gives rise to innovations in new customized transactions. This symbiotic interplay between on- and off-exchange trading – and the new financial products to which this relationship gives rise – is known as the "financial-innovation spiral."[101]

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[99] Treasury Plan, *op. cit.*, at 43.

[100] *See, e.g.*, S. A. Ross, "Institutional Markets, Financial Marketing, and Financial Innovation." *Journal of Finance* 44(3) (1989), R. C. Merton, R. C., "Financial Innovation and Economic Performance," *Journal of Applied Corporate Finance* (Winter 1992), R. C. Merton, "Financial Innovation and the Management and Regulation of Financial Institutions," *Journal of Banking and Finance* 19 (1995), and R. C. Merton, "A Functional Perspective of Financial Intermediation," *Financial Management* 24 (1995).

[101] Merton (1992), *op. cit.*

Standardized exchange-traded derivatives play a vital role in the economy and the U.S. financial system. But so do OTC derivatives, whether standardized or not. Indeed, many non-financial corporations prefer to use OTC derivatives for their customization benefits, leaving their bankers and swap dealers to manage the residual risks of their corporate customer portfolios (often by using exchange-traded derivatives). Exchange-traded and OTC derivatives are thus symbiotic and complementary, and there is a legitimate role in the economy for both.

A. Issues Affecting Trading Venue Selection

There is a huge academic literature on the subject of exchange and trading system design and market microstructure.[102] The degree to which the issue has been studied in the scholarly literature is matched only by the degree to which market participants have engaged in creative experimentation to try and identify the market structure and trading venue that best serves the demand curve(s). Given the multitude of economic considerations faced by market participants in choosing between OTC and exchange transactions, there is no single "right way" to provide a market for the exchange of financial assets. Some of these issues are reviewed below.

(1) Relationship-Based Trading

The relative benefits and costs of electronic trading have been debated for many years in the world of both exchange-traded and OTC derivatives. Financial innovations in trading technologies and platforms, moreover, have occurred at a breakneck pace over the past decade, resulting in a greatly enhanced array of product offerings in the electronic trading space. Examples of "electronic trading" venues now include such diverse alternatives as electronic bulletin boards, distributed offering and electronic deal proposal systems, request-for-quote platforms, automatic order matching systems and limit-order books, and more.

In principle, the major benefits of electronic trading are enhanced pre-trade price transparency (*i.e.,* reduced costs to firms of searching for the best price) and reduced operational errors (*e.g.,* fewer out-trades). Electronic trading can also facilitate more rapid and efficient post-trade processing, such as trade capture, confirmation, collateral reconciliation, and position servicing.

In practice, however, many market participants still consider the benefits of electronic trading to be lower than the costs of surrendering their ability to negotiate trades directly with a counterparty. In fact, some market participants provide both electronic and bilateral-negotiation-based trading venues. On the exchange side, CME Group, for example, offers both open outcry and electronic trading platforms. On the OTC side, Blackbird, for example, offers a "hybrid" platform that provides participants with the choice of using its electronic trading system or a voice broker network.

(2) Competition in the Design of Exchange and Automatic Order Execution Systems

Exchange and quasi-exchange electronic order processing systems can differ widely in the rules they apply to match bids and offers and execute transactions. Indeed, exchanges and quasi-exchanges compete heavily with one another in struggling to find the system that market participants like best. By

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[102] *See, e.g.,* M. O'Hara, *Market Microstructure Theory* (Wiley, 1995), H. R. Stoll, ed., *Microstructure* Vols. I & II (Edward Elgar, 1999), L. Harris, *Trading and Exchanges* (Oxford University Press, 2002), and J. Hasbrouck, *Empirical Market Microstructure* (Oxford University Press, 2007).

forcing all standardized derivatives onto exchanges or electronic platforms, a significant source of competition against exchanges and authorized trading venues is eliminated, which could discourage innovation in trading technologies.

(3) New Product Development Incentives

Mandating that "standardized OTC derivatives" migrate on to organized exchanges or trading platforms could short-circuit the natural process of the financial-innovation spiral. As a result, OTC dealers might have a reduced incentive to engage in financial innovation, concerned that forced trading of their products would prevent them from recovering the revenues associated with new product development. Alternatively, OTC dealers might be perversely incented to design unnecessarily complex products in order to avoid the "standardized OTC derivatives" classification.

(4) Basis Risk Management

Unlike traditional insurance, derivatives are not indemnity contracts. That means derivatives do not reimburse firms for actual economic losses they might sustain. Nevertheless, a successful derivatives contract will be designed and standardized to maximize the correlation between cash flows on the contracts and potential losses at would-be hedgers.

Standardized derivatives expose hedgers to basis risk whether they are OTC or exchange-traded. The tradeoff is that standardized exchange-traded contracts are often more liquid and easier to offset *because they are exchange-traded*. Hedgers may find that feature more attractive for their own basis risk management than an exchange-lookalike OTC contract that is merely quoted on an electronic platform but still fundamentally an OTC contract that must be unwound with its counterparty rather than simply offset.

Alternatively, even standardized OTC derivatives can involve *some* customization – *e.g.,* the definition of reset and settlement dates. If such contracts are forced onto exchanges, the inability of derivatives participants to engage in any customization could give rise to basis risk that reduces hedging effectiveness. As noted by the foreign exchange risk manager of 3M Company, such basis risks could also jeopardize corporations in their ability to secure hedge accounting treatment for their risk management programs, thereby leading to higher earnings volatility.[103]

(5) Industrial Organization and Structure of the Underlying Cash Market

There is a strong relation between derivatives markets and the industrial organization of underlying cash markets.[104] Especially for commodity derivatives, futures and forwards act as intertemporal and interspacial supply rationing mechanisms, as well as risk management markets.[105] In addition, participants in the underlying physical market often make inventory and production decisions based on the availability of derivatives. More concentrated and vertically integrated industries, for example, often

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[103] Murphy, *op cit.*

[104] *See* D. W. Carlton, "Futures Trading, Market Interrelationships, and Industry Structure," *American Journal of Agricultural Economics* 65(2) (May 1983), and D.W. Carlton, "Futures Markets: Their Purpose, Their History, Their Growth, Their Successes and Failures," *Journal of Futures Markets* 4(3) (Fall 1984).

[105] *See, e.g.,* Williams, *op. cit.,* and Culp (2004), *op. cit.*

find derivatives less beneficial because they have turned a price risk management problem into a diversification and transfer pricing problem.[106]

More importantly, most products are not traded in "continuous auctions." Most firms sells their wares – whether an article of clothing or a collateralized debt obligation tranche – by developing marketing and distribution strategies. In that sense, market and distribution channels are mechanisms by which firms "grope" for market-clearing prices.[107] Forcing contracts onto exchanges with public and transparent prices essentially imposes a capital loss on any firms that have invested in alternative marketing and distribution strategies.[108]

(6) Availability of Non-Derivatives Alternatives

Derivatives are often the most efficient way to manage specific financial risks, but are by no means the only way. For firms that prefer to avoid exchange-traded derivatives, mandatory exchange trading could prompt such firms to pursue non-derivatives risk management solutions (*e.g.,* balance sheet hedging, securitization and asset divestures, secured commodity-based financing, or simply remaining unhedged and forcing shareholders of the firm to diversify away undesired financial risks on their own).[109]

B. Liquidity and Price Discovery

Liquidity refers to the capacity of a market participant to execute a transaction rapidly without precipitating a large price impact. Although liquidity plays a central role in the operation of financial markets, it is a notoriously abstract and difficult concept to quantify and analyze. Grossman and Miller have insightfully commented:

> Keynes once observed that while most of us could surely agree that Queen Victoria was a happier woman but a less successful monarch than Queen Elizabeth I, we would be hard put to restate that notion in precise mathematical terms. Keynes' observation could apply with equal force to the notion of market liquidity. The T-Bond Futures pit at the Chicago Board of Trade is surely more liquid than the local market for residential housing. But how much more? What is the decisive difference between them? Is the colorful open-outcry format of the T-Bond Futures market the source of its great liquidity? Or does the causation run the other way?[110]

The business of exchanges is in large part the business of striking the right balance between liquidity, transparency, standardization, product design, and market structure. OTC market participants are also in this business and have routinely attempted to innovate in ways to attract liquidity and market structure away from exchanges toward their own markets – *e.g.,* the development of multilateral transaction execution facilities and automated trading systems.

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[106] Carlton (1984), *op. cit.*

[107] *See, e.g.,* D. W. Carlton, "The Disruptive Effect of Inflation on Organized Markets," in *Inflation*, R. Hall, ed. (University of Chicago Press, 1982).

[108] Carlton (1983), *op. cit.*

[109] *See, e.g.,* C. L. Culp, *The Risk Management Process* (Wiley, 2001), and C. L. Culp, *Structured Finance and Insurance: The ART of Managing Capital and Risk* (Wiley, 2006).

[110] *See, e.g.,* S. J. Grossman and M. H. Miller, "Liquidity and Market Structure," *Journal of Finance* 43(3) (December 1987), at 617.

Price discovery, in turn, is the process by which trading in a market incorporates new information and market participants' expectations into asset prices. Price discovery facilitates the efficient allocation of scarce resources across time and space and thus is a critical underpinning to the economic function of derivatives markets.

Price discovery can enhance resource allocation even when prices themselves are not widely available. But when coupled with transparency, price discovery also helps facilitate the operation of other markets. Following the 1991 flooding of a tunnel system underneath the Chicago Loop, for example, the CBOT closed temporarily. During that time, grain elevators actually pulled down price quotes to farmers and did not repost those quotes until the futures markets re-opened.[111]

Historically, price discovery was associated mainly with exchange-traded futures. The increasingly fuzzy distinctions between exchange-traded and OTC derivatives, however, have made it progressively harder to draw clean lines between price discovery and market structure. Causation can run in many different directions at the same time, and dynamic adjustments and innovations can cause price discovery to shift – in some cases quite rapidly – from one market to another. Price discovery and liquidity thus cannot easily be associated *a priori* with a type of trading venue or clearing and settlement mechanism.

C. Trade Information Warehouses

In recent years, position data on certain OTC derivatives has become more readily available to many market participants. A significant proportion of reported credit default swap activity, for example, is tracked in the DTCC's Trade Information Warehouse. Such information repositories make it possible for market participants to monitor their exposures, review post-trade transaction pricing quickly and cost-effectively, and engage in exposure reconciliations that reduce the number of subsequent collateral disputes.

Despite the benefits of trade warehousing, it is unclear that there is a need for Congress or a regulatory agency to mandate specific record-keeping or trade reporting requirements to a trade information warehouse. The market is moving in that direction of its own accord, and market participants are best equipped to define the nuances and operational aspects of such a system. Banking regulators, moreover, have full access to the books and records of their constituent banks and thus can already obtain information about most active swap participants (either because they are regulated banks or because they are counterparties in transactions with regulated banks).

VI. Conclusion

The fundamental problem with regulating financial products (instead of the institutions that use them) is that product innovation is generally one step ahead of product regulation. Today's product regulations thus often end up addressing yesterday's problems. That is the nature of the dynamic relationship between regulation and financial innovation.[112] No matter how capable the regulator, it is a practical

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[111] G. J. Kuserk and P. R. Locke, "The Chicago Loop Tunnel Flood: Cash Pricing and Activity," *Review of Futures Markets* 13(1) (1994), 115-146.

[112] *See* M. H. Miller, "Financial Innovation: The Last Twenty Years and the Next," *Journal of Financial and Quantitative Analysis* 21(4) (December 1986), and E. J. Kane, "Interaction of Financial and Regulatory Innovation," *American Economic Review* 78 (1988).

impossibility for regulation to consider all possible financial innovations and to define all possible financial products, thus rendering legal and regulatory uncertainties nearly inevitable in a product-based regulatory regime.[113]

Because large losses that engender the survival of a single firm (and any systemic problems to which a failure of that firm give rise) can result from poor investment decisions made with *any* financial product, moreover, new regulations targeting particular financial products are not likely to be effective at mitigating systemic risk. A more effective and less disruptive way to enhance financial stability is to emphasize the prudential supervision of the safety and soundness of financial institutions. And that would by no means "leave OTC derivatives unregulated." On the contrary, virtually all major OTC derivatives dealers are already regulated at the institutional level. Indeed, some financial institutions have *so many* regulators that responsibility for consolidated enterprise-wide oversight seems to have fallen through the cracks on several occasions during 2007 and 2008. Although that highlights the fact that institutional regulation also poses problems and challenges (and also gives rise to uncertainties), those issues are more easily and less disruptively addressed than the issues to which new product-based regulations would give rise.

[113] *See* F. L. Smith, Jr., "Cowboys Versus Cattle Thieves: The Role of Innovative Institutions in Managing Risks Along the Frontier," in *Corporate Aftershock*, C. L. Culp and W. A. Niskanen, eds. (Wiley & The Cato Institute, 2003).

Statement of
Terrence A. Duffy
Executive Chairman of CME Group Inc.

Before the

UNITED STATES HOUSE OF REPRESENTATIVES

COMMITTEE ON FINANCIAL SERVICES

SUBCOMMITTEE ON CAPITAL MARKETS,
INSURANCE, AND GOVERNMENT SPONSORED
ENTERPRISES

June 9, 2009

I am Terrence Duffy, Executive Chairman of Chicago Mercantile Exchange Group Inc. ("CME Group" or "CME") Thank you Chairman Kanjorski and Ranking Member Garrett for this opportunity to present our views on effective regulation of the OTC derivative market.

CME Group was formed by the 2007 merger of Chicago Mercantile Exchange Holdings Inc. and CBOT Holdings Inc. CME Group is now the parent of Chicago Mercantile Exchange Inc., The Board of Trade of the City of Chicago Inc., the New York Mercantile Exchange, Inc. and COMEX (the "CME Group Exchanges"). The CME Group Exchanges are neutral market places. They serve the global risk management needs of our customers and producers and processors who rely on price discovery provided by our competitive markets to make important economic decisions. We do not profit from higher or lower commodity prices. Our Congressionally mandated role is to operate fair markets that foster price discovery and the hedging of economic risks in a transparent, efficient, self-regulated environment, overseen by the CFTC.

The CME Group Exchanges offer a comprehensive selection of benchmark products in all major asset classes, including futures and options based on interest rates, equity indexes, foreign exchange, agricultural commodities, energy, and alternative investment products such as weather and real estate. We are in the process of joining with market users to operate a green exchange to provide trading and clearing services that will serve cap and trade programs respecting emissions and allowances.

Treasury Secretary Geithner's May 9, 2009, letter to Senator Harry Reid outlined the administration's plan for regulatory reform of the financial services sector. His plan proposed increased regulation of credit default swaps and other OTC derivatives. Newspaper reports have also suggested that merger of the SEC and CFTC may be open for consideration. Finally, this Committee posed seven questions for our consideration this morning.

We agree with many of Secretary Geithner's proposals, which mirror much of our recent testimony before Congress. For example, we support position reporting for OTC derivatives and agree that enhanced price transparency across the entire market is essential to quantify and control risk.

We believe, however, that the means chosen to achieve these ends should be fine-tuned to avoid adverse consequences for U.S. markets. For example, legislation mandating the clearing of all OTC derivative transactions could well induce certain market participants to transfer this business offshore, resulting in a loss to the U.S. economy. We are concerned that this may result in a significant shift of related transactions that would have been traded on U.S. regulated exchanges to foreign jurisdictions. By reducing liquidity on markets regulated by U.S. regulators, this shift could undermine the established price discovery and risk hedging missions of U.S. futures exchanges.

We believe that the administration's objective of reducing systemic risk can be accomplished by other measures that would ensure that the U.S. retains its significant role in the OTC derivatives market. Rather than compel clearing of all OTC derivative transactions, appropriate incentives in the form of reporting and capital charges for uncleared OTC positions and reduced capital charges for cleared OTC positions should contribute both to the reduction of systemic risk and transparency.

We applaud the administration's efforts to enhance transparency, stability, integrity, efficiency and fairness in the markets. We believe that slight modifications to the proposal outlined by Secretary Geithner and the inclusion of a

few additional measures would complement the administration's efforts. Focusing on the Commodity Exchange Act, we have responded to your specific questions and offer a number of recommendations and reform measures.

1. Explain your views on the need for OTC regulation broadly.

You asked us to discuss the need to regulate the OTC market. OTC derivatives cover a very broad swath of product types from collateralized obligations packaged as securities (including subprime mortgage obligations) to pure vanilla swaps that are unregulated versions of futures contracts. OTC derivatives are a tool for managing a firm's risks. Like all tools, they are neither intrinsically beneficial nor harmful. There seems to be an informed consensus that the financial crisis was attributable, in part, to the lack of regulation in the over-the-counter market, which was not subject to appropriate disclosure and risk management techniques.

The failure to properly measure and collateralize the risks of OTC derivatives had dire consequences. In stark contrast, trading of financial futures on regulated futures markets, subject to the oversight of the Commodity Futures Trading Commission, has been a net positive to the economy, has caused no stress to the financial system and has easily endured the collapse of one and near collapse of two firms that were very active in our markets. This is a record of which the CFTC and our industry are justifiably proud.

CME has consistently promoted the superiority of regulated exchanges with central counterparty clearing. We have not sought to ban all OTC trading, we have urged that OTC trading be limited to truly sophisticated investors trading contracts that are too individualized or too thinly traded to be brought onto a trading platform for standardized products. We were right then and we are right now.

2. Explain how clearing will affect the OTC market.

Clearing should be offered to the OTC market in a form that makes it a compelling alternative to the current model. Central counterparty clearing offers a well-tested method to monitor and collateralize risk on a current basis reducing systemic risk and enhancing certainty and fairness for all participants. Our solution offers regulators the information and transparency they need to assess risks and prevent market abuse. CME's CCP offering to the OTC market includes multilateral netting and well-conceived collateralization standards; in the case of

credit default swaps, it will eliminate the risk of a death spiral when a jump to default of a major reference entity might otherwise create a cascade of failures and defaults.

3. Address whether clearing should be mandated for all products or only some.

We are not in favor of government mandated clearing, although we are strong proponents of the benefits of central counterparty clearing as an effective means to collect and provide timely information to prudential and supervisory regulators and to greatly reduce systemic risk imposed on the financial system by unregulated bilateral OTC transactions. Our support of CCP clearing and opposition to a government mandate is not inconsistent. We appear to be the direct beneficiary of legislation to force more OTC transactions through regulated clearing houses, but we expect that mandating clearing will not have the expected outcome. If the OTC dealers do not embrace clearing, they can easily transact in another jurisdiction and cause significant damage to a valuable domestic industry. We urge consideration of the implication that OTC financial markets are global. Trading systems are electronic, banking is international, and every important trader has easy access to markets that are not regulated by U.S. agencies. Prohibitions or costly impediments to legitimate business activities in the U.S. will simply divert business to jurisdictions that adopt rational measures to deal with the causes and protection against future financial meltdowns.

We favor encouragement of clearing by offering favorable capital treatment to OTC dealers that clear and subject their positions to appropriate collateralization and mark-to-market regimes subject to regulatory oversight. A capital charge and reporting requirements will incent voluntary clearing, while providing the appropriate regulators with the information necessary to monitor such transactions.

We favor the elimination of impediments to the voluntary clearing of OTC derivatives by amending the CEA and securities laws to permit a clearing house for OTC derivatives to be regulated by the CFTC or the SEC, regardless of ambiguity respecting the character of the instrument underlying the derivative. A voluntary central counterparty clearing model reduces the probability that the failure of a significant market participant would lead to a systemic failure or require a government bailout. In our view, the CFTC is the regulator best suited to oversee such clearing houses. During the recent market turmoil, CFTC-regulated clearing houses functioned flawlessly despite the collapse of one and near collapse of two SEC regulated broker-dealers that were very active in the futures markets.

4. Discuss the pros and cons of exchange trading.

CME Group operates four exchanges and is a strong proponent of the benefits of exchange trading of derivatives. We are also realists when it comes to whether exchanges can generate sufficient liquidity to make exchange trading efficient and economical for our customers. We have introduced hundreds of well designed contracts that have attracted no customer interest despite clear customer demand, surveys and expert opinion that the contract was needed. Given the multitude of specialized contracts traded in the OTC market, we are confident that government mandated exchange trading of standardized contracts as a replacement for this bespoke market will be ineffectual.

There is one clear exception to this rule. We must eliminate, by amendment to the CEA, the exemption and judicial precedent that permits off-exchange trading of retail foreign exchange and other forms of derivative contracts. As we previously predicted, there have been hundreds of enforcement actions, hundreds of millions in fraudulent losses to retail traders, and each day brings new cases and more losses. Moreover, judicial rulings allow dealers in any commodity to structure a margined contract for speculative use by retail customers and effectively place it beyond the reach of CFTC jurisdiction. These leveraged, retail contracts are identical to futures contracts and deserve the full panoply of protection of the CEA and the CFTC.

5. Address the potential benefit of increased electronic trading.

Most futures contracts offered by the CME Group exchanges are electronically traded. In our view, electronic trading levels the playing field, enhances price transparency and liquidity, speeds execution and straight through processing, eliminates many classes of errors and mismatched trades and is generally enormously beneficial to the market and our customers. Electronic trading, when coupled with our intelligent audit and compliance programs, allows us to better monitor our markets for fraud and manipulation and gives us the tools to effectively prosecute anyone foolish enough to engage in misconduct in a forum with a perfect audit trail and highly skilled enforcement staff.

6. Discuss how to best achieve a balance between price discovery and liquidity.

We understand this question to raise concerns respecting speculation in derivative markets and how we balance the need for liquidity against problems that

are allegedly caused by excessive speculation. There is no dichotomy between effective price discovery and liquidity. We understand that recent spikes in fuel and food prices are shocking and painful to consumers and the economy. Unfortunately, the pressure to control price spikes has led some to look for a simple causal agent that can be neutralized with the stroke of a pen. The favored culprit is the traditional villain--speculators. But speculators sell when they think prices are too high and buy when they think prices are too low. They are not a unified voting block and are on both sides of every market. Speculative selling and buying send signals to producers and processors that help keep our economy on an even keel. High futures prices for corn induced farmers to bring new acreage to market. High forward energy prices encourage exploration and new technology to exploit existing untapped reserves.

Futures markets perform two essential functions—they create a venue for price discovery and they permit low cost hedging of risk. Futures markets depend on short and long term speculators to make markets and provide liquidity for hedgers. Futures markets could not operate effectively without speculators and speculators will not use futures markets if artificial barriers or tolls impede their access. Blaming speculators for high prices diverts attention from the real causes of rising prices and does not contribute to a solution.

Regulated futures markets and the CFTC have the means and the will to limit speculation that might distort prices or distort the movement of commodities in interstate commerce.

7. Address whether books and records are appropriate for all trades and whether warehousing is appropriate for all trades.

We operate trading systems and a clearing house in which every bid and offer and every completed transaction is instantaneously documented and where those records are preserved for an extended period of time.

SEC/CFTC MERGER

The SEC and CFTC both apply regulatory principles that protect their respective markets and public customers of their markets, but SEC law and regulation is antithetical to successful regulation of futures markets. Merger is likely to result in the application of the SEC's, the dominant agency's, policies and principles to the detriment of futures markets.

One of the grounds offered for merging the SEC and CFTC is that the financial meltdown would not have occurred if information had not slipped through the crack between those agencies. This claim is not supportable. Derivative transactions conducted on CFTC regulated futures exchanges and cleared by CFTC regulated clearing houses did not contribute to the current financial crisis. Moreover, both agencies lacked regulatory authority to deal with the instruments most implicated in the meltdown. A merger would not have cured that defect. Information sharing, which can close the gap, does not require merger; it requires that there be reliable information, that each agency collects information on a timely basis and that the information is responsibly shared. We understand from recent public comments that the two agencies are now placing renewed focus on the productive and timely sharing of information.

Futures markets and securities markets serve very different purposes. Futures markets provide price discovery and a means to hedge economic risk. Terms and conditions of each futures contract are unique and are specifically designed based on market demands. In contrast, securities markets provide a forum to trade securities on a level playing field where insiders and others are precluded from taking advantage of inside information. There is little to no overlap in the regulatory regimes of futures and securities markets and no real public efficiency presented by a merger.

Congress clearly intended to set futures apart from securities regulation and that grant of exclusive jurisdiction to the CFTC must be preserved. In the global economy, where networks easily penetrate national borders, U.S. derivative markets cannot compete if the principles based regulatory regime created by CFMA is replaced for U.S. markets by a prescriptive regulatory regime that is administered by the SEC and its staff who are unversed in the intricacies of derivatives trading and clearing.

CONCLUSION

We appreciate this opportunity to present our views on these important issues. We hope that our views on the importance of the OTC market and the costs and dangers of mandating clearing and exchange trading will be given significant weight given our position as the apparent beneficiary of such mandates.

STATEMENT OF CHRISTOPHER EDMONDS
CHIEF EXECUTIVE OFFICER,
INTERNATIONAL DERIVATIVES CLEARING GROUP
BEFORE THE
CONGRESSIONAL SUBCOMMITTEE ON CAPITAL MAKRETS, INSURANCE, AND GOVERNEMENT SPONSORED ENTERPRISES
JUNE 9, 2009

Good morning Chairman Kanjorski, Ranking Member Garrett, and Members of the Committee. I appreciate the opportunity to testify today on behalf of International Derivatives Clearing Group, LLC (IDCG). The effective regulation of the Over-the-Counter (OTC) derivatives markets is essential to the recovery of our financial markets.

IDCG is an independently managed, majority owned subsidiary of The NASDAQ OMX Group. IDCG operates the International Derivatives Clearinghouse (IDCH), a Commodity Futures Trading Commission (CFTC) regulated clearinghouse that is approved to act as a central counterparty for interest rate swap (IRS) futures contracts and other fixed income derivatives.

IDCG was conceptualized in late 2007 with the purpose of offering a clearing service for OTC interest rate swaps. Pairing with the global leader NASDAQ OMX Group, IDCG built a clearinghouse capable of clearing interest rate swap futures contracts which are economically equivalent to OTC interest rate swap contracts. IDCG filed a clearing organization application with the CFTC on August 22, 2008 and received approval four months later, on December 22. This approval took place during arguably one of the most trying times in the history of our financial markets, and we commend the CFTC for the thorough and diligent review of our application.

I am certain each of you has heard many stories and versions of the current economic crisis. Some are self-serving explanations trying to influence how this pitfall in financial history will be remembered. While these opinions have their place in the debate, I would encourage each member to use one test to determine the best reforms to ensure future generations are not forced to confront these issues again.

I sit here today in an environment where some of the leaders of the financial industry have failed to protect the end-users. Today's financial system is not open to all players, the rules of engagement do not apply to all, and there are significant barriers to innovation. Unless the work of the Committee, this Congress, the

current Administration, and all of the participants in the debate yields a system that protects the smallest eligible market participant in a manner consistent with the largest market participant, the system will fail again. There has been a lot of debate around the use of central counterparties (CCPs); I, however, assure you not all central counterparties are the same. Ultimately, market competition will determine where business lands, but I encourage members of this Subcommittee to stay focused on the simple fact that when it comes to clearing, all counterparties must enjoy the same level of access and play by the exact same rules.

There has been much fanfare over the handling of the Lehman default. While it is true that some counterparties were part of a system that provided some minimal protection, this system was far more a club and far less a macro solution. Unfortunately, this system did not protect the end-users. The Federal Home Loan Bank (FHLB) System lost hundreds of millions of dollars[i]. Many county governments and even the New York Giants[ii] suffered losses as well. These are real world examples of why the main thing regulation needs to do is protect the smallest market participants. This system simply failed the most critical type of user – the end-user.

I have defined the victims; let me also offer a quick overview of the macro systemic risks. In the world of interest rate swaps, the sell-side or dealer community has a distinct advantage over the end-users of these products. This advantage developed due to the lack of transparency or consistent rules of engagement in the market. Make no mistake, healthy dealers are needed in this system, however, their health need not be at the expense of end-users of the products. In markets where CCPs exist today, all dealers have a significant presence and produce significant profits. Equities are the largest example of such a market; likewise, when CCPs were introduced in the energy markets in the earlier part of this decade, dealers saw an increase in the number of counterparties and their opportunities for transactions. You have heard and will continue to hear why transparency is negative for the market, but it is only a near-term negative for those who are currently disproportionately advantaged by the lack of transparency. In equities over the past 30 years, and energy over the last decade, history has proven two things: first, transparency does create more opportunities, and second, the dealer community has the intellectual horsepower to generate significant profits from the increased opportunities – as do all market participants. In the wake of the release of the widely referenced letter of June

2, 2009 to the Federal Reserve Bank of New York, many – myself included – marvel at how the same entities that helped create the financial crisis are now explaining how the market should be reformed.

While I wish I could report to you today that the financial markets are evolving in the right direction from a systemic risk perspective, that is simply not the case. Let me explain what we have found with respect to counterparty risk concentration. IDCG offers a product that is the economic equivalent to the interest rate swap (IRS) product that trades in the OTC market. Since some have continued to confuse the costs of clearing services, we began to offer what we call shadow clearing. This way, end-users can quantify the actual cost of moving their portfolios into our CCP environment. We now have over $250 billion dollars in shadow clearing, and our data has shown significant concentration risks exist in the IRS world. In fact, two of the largest four participants were required to raise significant capital as a result of the recently completed stress tests.[iii]

Just last week before this same Subcommittee, Federal Housing Finance Agency Director, James Lockhart acknowledged an over-concentration of counterparties has developed during the past year.

The OTC Market

The OTC market is vast by any measure and broad in its reach. Currently, when one is looking to approximate the scope of the OTC market, the figure often cited is the total notional amount outstanding. In its most recent report, the Bank for International Settlements (BIS) placed this figure at a staggering $592 trillion. While this is an important guide to the total volume of transactions that may need to be replaced in the event of default in the bilateral environment, total notional amount outstanding can be a misleading measure of the risk inherent in the OTC market.

A more useful number (BIS publishes this number for this very purpose) is the gross market value which represents the cost of replacing all open contracts at prevailing market prices. This is the counterparty credit exposure that central clearing addresses. As of December 2008, BIS estimated the gross market value of all OTC derivative contracts to be $34 trillion, an increase of 114% from the previous year. Within that total, the gross market value of all USD OTC interest rate derivative contracts was $10.2 trillion, an increase of 217% from the previous year. While this does not represent a single measure of risk in the market, it is representative of the exposure currently borne by participants. The OTC market has grown to the size it is because of the

immense benefit that it brings to increasing the efficiency of our economy and financial system. The systemic risks in the system, however, have become too large to ignore any longer. OTC markets have also been characterized by a lack of adequate regulation and an absence of price transparency, which have, in turn led to poor judgments being made on the nature of risk itself. An unfortunate victim of these market dynamics is Jefferson County, Alabama. Because of the opaqueness of the OTC market, experts believe that Jefferson County was overcharged by approximately $100 million for arranging derivative contracts designed to lower borrowing costs on sewer debt[iv]. In addition to overpaying for these contracts, these interest rate swap contracts have actually significantly increased their borrowing costs. Now Jefferson County is on the precipice of bankruptcy[v]. For further evidence of these flawed market practices, one needs to look no further than the collapse of Lehman Brothers and the massive infusion of taxpayer dollars into the financial system.

We need to be focused on preventing similar abuses which have cost taxpayers hundreds of billions of dollars. The best way to accomplish this goal is through the proper regulation of the instruments, the methods of transaction, and the participants – all of which contributed to this great economic crisis.

Centralized Clearing

Of the many solutions proposed to solve the aforementioned problems, the best is central clearing. A clearinghouse minimizes counterparty credit risk among participants by acting as a buyer for every seller and a seller for every buyer. The clearing house employs a number of risk management techniques to ensure that it has sufficient resources to replace the market risk of a participant if they default. These resources come from margins levied against each participant, a mutual risk pool with contributions from all participants, and the clearinghouse's own capital. This approach acts in a number of ways to reduce the systemic risk in the market;

- Bankruptcy: Segregated funds treatment of client's money in a futures clearinghouse has proven effective. Bilateral credit arrangements do not protect end-user's cash when there is a bankruptcy situation. This was dramatically demonstrated by FHLB's losses resulting from the Lehman Brothers default.

- Mutual Risk Pool: The potential for knock-on effects from a default are reduced because the loss is borne by all participants, in a share commensurate with their own positions in the market, rather than in total by one participant.
- Netting: With Netting, only the net market risk of a participant needs be replaced in a default, rather than the multiple offsetting transactions currently present in the OTC market.
- Great Operational Efficiency: Facing a single counterparty simplifies the market. The number of bilateral credit arrangements was estimated to be over 150,000 in International Swaps Derivatives Association's 2009 Margin Survey Results, compared to the few hundred arrangements that would be necessary against a handful of clearing houses.
- Total Position Margining: With a CCP, liquidity demands of each user are calculated daily across the entire portfolio. This reduces liquidity demands from multiple bilateral collateral arrangements, to a single demand from a central counterparty based on market risk.

It is important to note that no CFTC regulated clearinghouse using these risk management techniques has ever failed as a result of a default, or series of defaults. Some have suggested that the cost of central clearing limits the efficiency of the market; this is simply not true. Given the efficiency gains by consolidating the many hundreds of thousands of bilateral arrangements to a central counterparty, clearing is not only a systemically better alternative, but also likely a cheaper one. As well, from a public policy perspective, an appropriately applied margin requirement, under the supervision of a strong regulator, acts as a natural deleveraging discipline in the market.

Transparency

Transparency of pricing through exchange trading brings further benefits to the broader financial system. By requiring OTC derivatives to be traded through exchanges, transactions are executed in the most economically efficient ways. This has the potential to significantly reduce the cost of OTC participants who are hedging their risk. Transparency also translates into a direct savings for taxpayers. When these prices are made public, the opacity of the OTC market no longer obscures the fair market value of these contracts. This is particularly true in the IRS market where the most simple and standard of products, vanilla IRS, provide the

backbone of valuation for the more exotic and bespoke products. In this way, even those products which are considered unsuitable for exchange trading or central clearing still incur substantial benefit from applying these tools.

Some participants have expressed concerns that the costs of clearing would outweigh the benefits. I answer those concerns in two ways; first, most simply, the costs of not clearing are far more daunting, you need only ask the institutions I have already mentioned who sustained substantial losses in the Lehman collapse if the costs of clearing are prohibitive. I think the answer is unmistakable. The second point is that the dealer banks are already charging their clients for the credit risk inherent in bilateral OTC contracts; it would be imprudent for them not to. This charge is wrapped up in the transaction costs and unlike true collateral, is not necessarily returned to the client once the risk is reduced. Rather, it is retained by dealer bank as profit. I suggest it would be far better to see and make decisions on the fees for individual services in a transparent manner; this concept is the corner stone of our financial market system and regulation.

Likewise there have been concerns raised that moving to an exchange environment would stifle creativity in the OTC market for bespoke structures. I argue the opposite; a greater depth of liquidity in the instruments used to hedge these structures, clearer indications of their component prices, and a greater understanding of the risks involved would lead to greater creativity and acceptance of the products.

Furthermore, the exchange trading of products eases the regulatory burden, by providing the timely reporting of trades, immediate price dissemination, as well as electronic audit trails. These tools are invaluable for regulators tasked with preventing manipulation and fraud in financial markets.

Market Access

The most important aspect in the design of centralized clearing is mutualization of risk amongst the greatest number of market participants. Central clearinghouses should be required to have fair and open access criteria that allow any firm that meets its objective, prudent standards to participate under the same rules of engagement. This in turn increases the number of participants which reduces systemic risk. The risk involved in derivatives traded in this manner is better distributed. Central clearing gathers strength from greater transparency, more competition, and, for the larger market participants, the benefits of netting multiple risk

exposures. Limiting the number of participants severely dilutes centralized clearing's value proposition. As mentioned previously, limiting clearing to a select group of participants does not provide any benefits to the end-users, like the Federal Home Loan Bank System.

Fundamentally, central clearing means that more parties are backing a transaction rather than a few. This is in contrast to the bilateral world, where all parties are only as strong as the weakest link in the chain. In an improperly mutualized system, this argument still applies. Recent academic research has confirmed this effect, clearly demonstrating the greatest benefits from clearing are achieved when the greatest number of participants in the largest markets is able to access a cleared solution. There is no better example of this than the USD IRS market.

In addition to the benefits that a greater number and diversity of participants bring to the clearing solution, it can also have a significant impact on the liquidity available in the market. In a market with a high concentration of liquidity providers the commercial balance is tipped in favor of these few institutions. I have already mentioned our shadow clearing service, which has demonstrated the presence of this kind of imbalance in the USD IRS market. Further evidence of this concerning situation can be seen in the BIS concentration statistics. The Herfindahl Index, which measures market concentration, is at its highest level in published history for USD IRS. Perhaps more concerning is how the US market has fallen behind other major markets, notably Europe, in this regard and now demonstrates a higher concentration than much smaller markets such as Sweden and Japan where you would expect a natural bias towards a smaller number of participants. The market is desperate for a more diverse base of liquidity to bring transaction costs back to pre-crisis levels and to provide a buffer to the extreme volatility that has been present in financial markets since the summer of 2007. Only an All-to-All solution will deliver this liquidity in a prompt and efficient manner.

Conclusion

IDCG welcomes the direction taken by Secretary of Treasury Timothy Geithner in his statements on regulatory reform of OTC derivatives and sees this as an important first step in the direction of much needed reform of the broader financial industry. While no one would argue that all OTC derivatives are suitable for clearing, we at IDCG believe that the vast majority of the volume of transactions are not only suitable, but

demand to be cleared given the current environment. While any potential legislation should be careful not to force all contracts or all users onto exchanges or into clearing houses, it should also be careful not to restrict the creative talents and commercial power of the people gathered in this room from being able to help the financial system out of its current predicament.

The IDCG solution employs a set of exchange traded futures contracts rich enough to replicate existing OTC market practices but without introducing additional complexities to the way the product behaves or is priced. This, combined with a rigorously tested and regulated clearing model enables market participants, both current and future, to minimize individual counterparty credit exposure. By bringing this solution in an open "All to All" model, the reduction in systemic risk and increase in price and valuation transparency can be achieved at the broadest level. We stand ready to offer this solution today to market participants who want to move our financial system forward from the crisis experienced over the past two years. IDCG is providing a private industry response to the current financial crisis, and our mission has never been more relevant than in today's difficult economic environment.

Mr. Chairman, thank you for the opportunity to appear as a witness today.

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[i] Press release. FHL Banks Office of Finance. 9 Oct. 2008. FHL Banks Office of Finance. 9 Oct. 2008 <http://www.fhlb-of.com/analysis/press_rls/FHLBLehman100908.pdf>.

[ii] Bloomberg. 12 Dec. 2008. Aaron Kuriloff. 13 Dec. 2008 <http://www.bloomberg.com/apps/news?pid=20601079&refer=home&sid=ay72YnXojdqk>.

[iii] Press release. Board of Governors of the Federal Reserve System. 07 May 2009. Board of Governors of the Federal Reserve System. 07 Mar. 2009 <http://www.federalreserve.gov/newsevents/bcreg20090507a1.pdf>.

[iv] Bloomberg. 26 Apr. 2008. Martin Z. Braun. 26 Apr. 2008 <http://www.bloomberg.com/apps/news?pid=20601087&sid=a8LMiiucBPHA&refer=home>.

[v] Bloomberg. 29 May 2009. Kathleen Edwards. 29 May 2009 <http://www.bloomberg.com/apps/news?pid=20601103&sid=aMDlrt.HFtVQ&refer=us>.

Statement of
Christopher Ferreri, Managing Director of ICAP,
Before the Capital Markets Subcommittee of the
House Financial Services Committee
June 9, 2009

Thank you, Chairman Kanjorski and Ranking Member Garrett, for allowing me the opportunity to participate in today's hearing. This morning I will be offering testimony to provide additional insight for the Committee into the Interdealer over the counter (OTC) derivatives marketplace, our views regarding OTC regulation, the benefits of electronic trading and clearing, the distinction between exchange trading and clearing, and how ICAP has helped to develop solutions to make these markets become more efficient and transparent.

There are many components to the financial markets and I work for a company that occupies a very unique space that few people outside of our business have ever heard of: the Interdealer Broker (or IDBs). Broker/dealers and other large financial institutions use IDBs in the secondary over the counter markets to execute their customers' orders, trade for profit and manage their exposure to risk. There is no centralized exchange in the OTC market, and as a result, financial institutions use the IDBs for price discovery and liquidity.

Although I began my professional career as an Electrical Engineer, I became a US Treasury broker in 1984 and have been with the same company ever since. My degree in Electrical Engineering seemed to have little to offer initially in my work as a broker, however, that education prepared me well to assist in the transition of our business from voice brokering to electronic trading; my daily responsibilities are focused on the continued migration of products onto our electronic platforms.

ICAP is the world's leading Interdealer Broker. As an IDB, our objective is to match willing buyers and sellers, and in that process, provide services from distributing market data to automating post trade services. Our customer base is mostly made up of professional traders from large financial institutions and no single customer contributes to more than 5% of our revenues.

ICAP is a publicly held company traded on the London Stock Exchange under the Symbol (IAP), and has 4,300 employees worldwide. We maintain a strong presence in the three major financial markets, New York, London and Tokyo, with a local presence in 30 other financial centers around the world. ICAP covers a broad range of over the counter products and services in interest rates, credit, commodities, foreign exchange, and equity markets as well as data, market commentary and indices.

While ICAP does broker credit default swaps (CDS), it is a relatively small part of our overall OTC and exchange-related business.

ICAP's post trade services include: Traiana, which automates post-trade processing for over 50 of the world's largest financial trading groups; Reset, a company that helps in reducing mis-matched forward rate agreements; TriOptima, which reduces counterparty credit funding through portfolio reconciliation and portfolio compression; and a joint venture with CLS, designed to reduce risk and costs in pre-settlement processing for the global FX markets. ICAP is committed to the benefits of central clearing and also recently announced that we are part of a consortium to acquire LCH.Clearnet. All of these initiatives have firmly placed ICAP in the realm of global post trade provider. ICAP is the only IDB in the world with such a wide breadth of both electronic and post trade capabilities.

Today, ICAP is the largest Interdealer Broker in US Treasuries with average daily volumes of more than 100 billion dollars, 87% of which is electronic. ICAP has successfully migrated a number of our businesses from telephones to screens and ultimately to electronic trading, and we have served as a bridge to maintain liquidity while improving efficiencies.

As an integral part of the over the counter markets, we feel that ICAP has unique and helpful insight on the importance of the derivatives markets and the central role they play in risk management and economic growth.

We offer this testimony as a participant in the markets, whose primary purpose is in helping our customers find liquidity. We compete for their business on a value-added basis. In my testimony today, I would like to offer some insights into the OTC markets, the Interdealer markets, and in particular, ICAP, as well as our viewpoint on the methods in which the markets can operate more openly.

1. **Our view on the need for OTC regulation**
    a. Interdealer brokers like ICAP are regulated with regard to many of their activities by national functional regulators and Self-Regulatory Organizations (SROs). ICAP's entire business is also overseen by its lead regulator.
    b. Regulators should have increased access to information about trading in the OTC markets and the outstanding positions held by counterparties.
    c. There are already in place many forms of regulation that apply to the OTC cash and derivatives markets. In cases where the markets themselves may not be regulated, regulations apply to banks and other market participants in the different markets.

d. The OTC markets operate on a global basis. Unless there is global coordination of changes in regulation, there is the risk that activity could be transferred from closely regulated markets to less regulated ones.

2. **How clearing will affect the OTC market**
   a. Many OTC traded markets already enjoy the benefits of clearing through independent clearing houses to reduce counterparty credit risk and increase capital efficiency - fixed income markets like US Treasuries, Repo, Mortgage Backed Securities (MBS), commodity derivatives and interest rates swaps are examples.
   b. A key measure of the health of the OTC markets is the availability of multiple, competing trading venues. There should be open access to all trades that are eligible for clearing and are transacted on these venues. There should be automated, secure links between trading venues and clearing facilities.

3. **Should clearing be mandated for all products or only some?**
   a. For products to be cleared, they require the use of standardized documentation and the regular availability of pricing. The vast majority of trades done today in the OTC derivatives markets use standardized documentation and therefore have the potential to be cleared.
   b. There are however products that are not traded frequently, and therefore, although using the appropriate documentation, cannot be cleared. These trades can be collateralized bilaterally to manage the exposure to counterparty credit risk. Systems to further automate the collateralization of these trades are already under development and are expected to be available in the market next year.
   c. Risk margining needs to be appropriate for the underlying asset. If products are cleared, then margins would be lower than for those products that are not.
   d. All trades, whether cleared or not, should be sent to trade warehouses. If they are not cleared, as they are marked to market, this information should also be used to update the trade warehouse. Regulators can then access these data warehouses and monitor counterparty exposures.

4. **The pros and cons of exchange trading**
   a. We must underscore the distinction between exchange trading and clearing. ICAP operates fully electronic marketplaces for US Treasuries, Repo, Agencies as well as the largest global Spot Foreign Exchange market. None of these are single silos of

exchange trading and clearing, but they are traded electronically and do centrally clear. They compete with other systems and offer fungibility of assets.

b. The one-size-fits-all approach of completely standardized non-fungible contracts means that corporations, mortgage providers, bond issuers and others are unable to accurately hedge their risk exposures. It is for this reason that the OTC markets are both larger in scale and broader in scope than exchange markets.
c. OTC markets have developed in parallel with exchange trading; the best example is the very successful operation of the US Treasury cash and futures markets.
d. There have been many instances of unauthorized trading of futures contracts on exchanges leading to significant losses.

5. **The potential benefits of increased electronic trading**
    a. Electronic trading can provide more efficient price discovery, simplify trade capture and trading supervision, materially reduce operational risk, increase audit-ability and create processing capacity in the OTC markets.
    b. Multiple trading venues increase competition, keep costs down and provide security from failure of individual platforms.
    c. For less liquid products, the best electronic platforms use a combination of fully electronic trading and voice trading to increase liquidity.
    d. Settlement cycles can be achieved faster.

6. **How to best achieve a balance between price discovery and liquidity**
    a. Migrating liquidity is difficult; the "turnkey" development of a completely new market infrastructure is unnecessary and will require significant implementation time and incur a high level of risk.
    b. Rather than rushing to develop new infrastructure, better and more extensive use should be made of the tremendous capabilities of the current OTC market infrastructure.
    c. ICAP has multiple examples of the evolution of price discovery from telephone to screens; US Treasuries, Repo, Agencies, MBS, and so on.

7. **Are books and records appropriate for all trades and is warehousing appropriate for all trades?**
    a. Trade reporting and warehousing of trades to provide transparency of market operations and exposures to regulators is appropriate.

b. There are several of these warehouses already in place, to which regulators have access, an example is the TriResolve data warehouse run by TriOptima, which already contains details of some 10.2 million OTC cash and derivative transactions. It is possible that additional tools may be required to analyze this data.

Interdealer Brokers are at the heart of the wholesale financial markets and our primary objective is to bring together willing buyers and sellers to complete transactions. We facilitate the flow of liquidity in both the OTC and exchange-traded transactions between commercial and investment banks and dealers representing companies, governments or other major financial institutions around the world.

Regulation in the OTC markets is necessary and appropriate to ensure fair and transparent markets. In the Interdealer OTC market, the major market participants are regulated. As ICAP operates in all of the regulated areas mentioned, it is worth noting that while the IDBs are not operating a regulated marketplace for non-securities derivatives, in thinking about how much regulation is needed in this area, one should consider that the IDBs have created a marketplace that already has many of the attributes those seeking greater regulation are interested in: deep liquidity pools and transparency of pricing for the actively traded instruments.

The processes of clearing, reporting/monitoring, risk margining, netting and failure handling are all beneficial to the OTC markets. The notion that all OTC instruments can be cleared is unrealistic. What is achievable is identifying appropriate capital requirements for the user of the derivative product; less for standardized derivatives and greater for those which are more customized. Dealers in derivatives would be incentivized to reduce the level of these more customized derivatives by employing trade reconciliation and trade compression techniques. There are a number of methods by which dealers can do this today, including the aforementioned TriOptima.

In addressing how clearing will affect the OTC markets, it is important to first define terms. Central clearing can include use of a central counter-party, as in the Central Counter Part (or CCP) model or not, as in the clearing house model, where the clearing house acts as a central trade repository. Settlement, in either case, can reduce risk for market participants and is a desirable development for the OTC markets. In particular, a CCP can act as a shock absorber and may have many risk management benefits. It also can, and has, lead to increased liquidity, as capital normally set aside for counter-party risk is now freed to be redeployed.

To be clear, settlement through a CCP or clearing house is a separate issue from trading on an exchange, a distinction that needs to be made. It is entirely possible to realize the benefits associated

with the CCP and clearing house models without the OTC markets trading on an exchange. Again, one needs only to look at the interdealer market for U.S. Treasury securities to see this. Traded on multiple regulated transparent electronic trade execution systems, the market leverages the CCP model through the automated clearing and novation capabilities of the Fixed Income Clearing Corporation (FICC), a division of the Depository Trust Clearing Corporation (DTCC). At point of novation, FICC steps in as a central counter-party, assuming counter-party risk and effecting settlement and clearing of submitted trades. This process is fully automated and nearly instantaneous through the use of real-time trade messaging. The benefits as it relates to risk management and market supervision under this structure are clear.

ICAP is well-established in post trade services, and we consider this sector of prime importance to our future. We believe central clearing embodies the transparency and efficiency needed in this area. ICAP's cleared OTC markets include: Interest Rate Swaps; US and EU government bonds and repo products; as well as corporate bonds and energy products. Approximately 60% of our CDS trading in Europe is electronically traded with all live, executable prices posted on these systems. In the US, the sovereign CDS market trades in a hybrid voice/electronic model with all live executable prices posted for all market participants to see. ICAP's businesses submit very large volumes of OTC transactions to the Depository Trust & Clearing Corporation and LCH.Clearnet on behalf of its customers on a daily basis.

The OTC environment offers many examples where execution is on "exchange-like" systems and which are already centrally cleared, with the inherent advantages of transparency and auditability. For example, the US Treasury market trades primarily with the Interdealer Brokers. At ICAP, US Treasury benchmark issues, the current 2-year, 3-year, 5-year, 7-year, 10-year and 30-year bonds trade 100 percent electronically on ICAP's BrokerTec platform. These trades are processed in real-time and within seconds of the completion of a trade are submitted to the Fixed Income Clearing Corporation (FICC) for clearing and settlement. For less liquid, less frequently traded off-the-run Treasurys, the price discovery and trade execution process is more actively negotiated by a voice broker, however, the trade processing and market data are fully automated.

For many people, the "market" typically refers to the stock market. In the stock exchange, tens of thousands of participants submit millions of orders for relatively few securities. The Interdealer Broker OTC market is quite opposite: contract sizes are large and there are a limited number of liquidity providers. Simply put, there are relatively few customers trading a wide variety of assets in large volumes. The customer base is significantly smaller than the number of securities being traded and the IDB market is a wholesale market for institutional professional traders. For the most part, our minimum order amount is one million dollars. In many cases, trades may begin with one or two million, with only two participants, and work up to several hundred million with many participants.

ICAP

The markets are varied and complex, including foreign exchange, Money Markets, Fed Funds, TBA Mortgages, Commercial Mortgage Backed Securities, US Agencies, US Treasuries, Corporate Bonds, Emerging Market Bonds and CDS, Interest Rate Swaps, Interest Rate Options and many others. Trading protocols, available liquidity, frequency of trades, etc. are all very different and the IDB markets have evolved over time to meet the demands of finding liquidity and reducing costs.

To highlight an example of how markets can evolve effectively and embrace multiple execution venues, consider the following: not that long ago, if you wanted to buy or sell GE stock, you were forced to work with a broker that was a member of the New York Stock Exchange, and do the trade at the New York Stock Exchange; a single execution, clearing and settlement venue. Clearly, technology showed us ways in which we could find liquidity in multiple execution venues, such as Electronic Communication Networks, or ECNs. This breakup of the monopoly of execution, clearing and settlements lowered costs, increased liquidity and expanded the markets. This has evolved over time to break the listed-exchange trading and open the market to multiple trading venues.

Granting a trading and clearing monopoly to the stock exchanges was wrong. Today, GE shares can be traded on any number of exchanges, reducing costs and increasing competition, while the trades themselves are reported into the clearing and settlement systems. Although well intentioned, mandating the OTC market to migrate towards a specific contract on a specific exchange would be a step backward with little positive impact to the marketplace.

Exchanges have also had little success in responding quickly and effectively with new products to meet customer demands. For example, a corporation making a debt offering who wishes to enter into a fixed/floating swap to hedge interest rate movements for very specific terms to meet financing needs. If the marketplace is required to go to standardized contracts, that issuer will either have to conform its offering to accommodate those terms, creating a gap between the specific risk and the available contract, or more likely, the corporation will wind up with unneeded risk and exposure.

Exchanges do not insulate participants from failure. There are numerous examples of failures and bankruptcies related to exchange trading. Barings was forced into bankruptcy because of unauthorized trading of exchange-listed contracts on the Singapore International Monetary Exchange and the Osaka Securities Exchange in 1992.

IDBs have always been on the cutting edge of innovation, from publishing US Treasury prices on "green screen" video terminals in the 1970s to developing systems for automation of trade processing and interactive trading systems in the late 1990s. The Interdealer OTC market benefits from this

experience in that we have managed the migration of products from voice-based price dissemination to screen-based and ultimately to electronic trading. Today, highly commoditized products are traded electronically and ICAP owns and operates two of the leading electronic OTC trading platforms.

The benefits of electronic trading are numerous, providing greater price transparency, streamlined and automated trade capture, affirmation and confirmation. Regulatory reporting is seamless. However, in order for these benefits to be fully realized, electronic trading needs to be adopted by many more groups in the OTC market and in more markets than we have at present.

The "turnkey" development of a completely new market infrastructure is unnecessary as the potential electronic trading systems are in place, have been used and can be extended. Significant implementation time of a new market infrastructure will incur a high level of risk, sacrificing liquidity at a time when the markets need it most.

The OTC market has evolved continually over the last 25 years alongside the exchanges and serves a vital role in creating transparent credit and capital markets. Standard exchange-traded contracts very rarely provide a perfect hedge for actual economic risk. These slight differences between a perfect hedge and the standardized contract used to simulate a hedge generate an imperfect hedge, and in fact can result in hundreds of variances to the original protection risk, potentially increasing the frequency of trades and generating multiple risk imbalances. By contrast, users of the OTC markets can use non standardized financial products like credit default swaps or interest rate swaps to hedge their risk more precisely and transfer part of that risk to other professional OTC market participants.

While the OTC markets have played a major role in global economic development and have been the hub of developments that benefit savers, investors, businesses and governments, we think their operation and effectiveness can be improved and ICAP favors changes to the regulatory framework supporting these wholesale financial markets.

ICAP welcomes the coming reform and we feel our goals of promoting competition, electronic trading, and clearing helps both our customers and ICAP, as lower costs and risks equals more volume for our company. ICAP has been a long–time advocate of clearing and the utilization of a central counter party model, more rapid trade confirmation and reconciliation, the elimination of reset risk, and portfolio compression.

Specifically, the regulatory response to current events needs to focus on expanding and enhancing the transparency of the already existing OTC market infrastructure and making it more robust in those areas where it is too fragile. Regulations should mandate – as the New York Federal Reserve

and others have been proposing – wider adoption of central counterparty give up and or central clearing for OTC derivative markets. A central counter-party together with central clearing that is independent of the trading platforms and does not limit available sources of liquidity for those markets should be mandated for all markets.

We would like our White Paper, titled The Future of the OTC Markets and written by ICAP's Group Chief Operating Officer Mark Yallop, to be included with this testimony as it describes ICAP's positions on strengthening the OTC markets, as well as the key points that we believe can improve the way the OTC markets operate.

I again thank the committee for allowing me to speak on this topic, and we look forward to working with the committee on building the bridge to a better marketplace.

Testimony of Donald P. Fewer
Senior Managing Director
Standard Credit Group, LLC
Before the House Financial Services Committee
Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises
U.S House of Representatives

June 9th, 2009

Mr. Chairman Kanjorski, Ranking Member Garrett and Members of the Subcommittee:

Good morning. My name is Donald P. Fewer, Senior Managing Director of Standard Credit Group, LLC. a registered broker/dealer and leading provider of execution and analytical services to the global over-the-counter interdealer market for credit cash and derivative products. I was fortunate enough to have consummated the first trades between dealers at the markets inception in 1996 and have participated in its growth and development as well as its challenges. I would like to thank the Subcommittee for the opportunity to share my thoughts on the regulation of the over-the-counter derivatives market.

Legislation that addresses derivatives markets accountability and transparency must reflect a clear understanding of market dynamics, particularly in the area of credit risk transfer. With this in mind, I would like to address five areas of interest before the Subcommittee:

- Regulation of the OTC Derivatives Market
- Mandated Central Counterparty Clearing of OTC Derivative Products
- Inherent Risks of Mandated Exchange Listing and Execution of OTC Derivative Products
- Price Discovery and Pre-trade/Post-trade Transparency
- Data Warehousing and the Maintenance of Books and Records
- Electronic Execution

Regulation of the OTC Derivatives Market

Virtually every post mortem and reverse engineering analysis of the credit crisis points to the need for enhanced regulation of the OTC markets. Results from such analysis point to multiple and sometimes conflicting causes of the crisis and the role played by the OTC derivatives market and CDS specifically. Notwithstanding these differences of opinion, a revamped, more cohesive regulatory regime is the mantra of the day and we generally support these efforts. Specifically, the establishment of a systemic risk regulator with the authority and accountability to regulate financial institutions that are determined to be systemically important is warranted. Standard Credit is in favor of enhanced regulation that works to achieve this end. Such regulation need not try to reshape the market or alter its underlying functionality. New regulation should observe that the U.S. share of global financial markets is rapidly falling and oversight consolidation should not be attained at the expense of U.S. competitiveness. Legislation that creates a regulatory environment that prohibits capital market formation will push market innovation and development to foreign markets. It is estimated that the inter-dealer broking industry in the United States generates $4 billion is revenues. A substantial portion of this revenue stream, with its associated individual and corporate tax base, would migrate off U.S soil. The data and technology exist to provide ongoing information to the designated regulatory authorities on market participants, their credit worthiness, daily exposure, leverage and risk profile without eliminating the risk incentive necessary for market makers to remain active in underlying activities. In short, don't strangle the markets but facilitate their growth and competitiveness through active, ongoing accountability.

Mandated Central Counterparty Clearing of OTC Derivative Products

Central clearing facilities of organized exchanges or other entities to be developed will not only work to eliminate counterparty credit issues in OTC bilateral derivative contracts, it will undergird and strengthen the OTC derivatives market infrastructure. Central clearing will serve to reduce systemic risk by providing multilateral netting and actively manage daily collateral requirements. There exists enough evidence in the major OTC derivatives asset classes (i.e., Interest- rate, Credit, FX, Energy and Equity) that mandated clearing of the most standardized and liquid product segments is congruent with efficient global derivative product trade flow. I would caution that the standardization requirement be properly evaluated so that the constitution of a "standardized" product and a "bespoke" product be clearly delineated. This will impact issues such as the economics of initial and maintenance margin requirements for derivative products which will determine the viability of the clearing process. The

difficulties clearing Single-name Credit Default Swaps (CDS) is an example of this. With specific regard to CDS, centralized clearing can be the mechanism by which new capital and liquidity providers participate in the credit risk transfer market. The use of CCPs by all market participants, including "end users" (i.e., hedge funds, asset managers, private equity groups, insurance companies, etc.) should be encouraged by providing open and fair access to key infrastructure components including but not limited to central clearing facilities, private broker trading venues and derivative contract repositories. OTC trading venues can provide voice and electronic pre-trade transparency, trade execution and post-trade automation. This view of providing access to all market participants, sell side and buy side, to an open platform centered in CCP, will stimulate credit market liquidity by re-connecting more channels of capital to the credit intermediation and distribution function.

However, I would caution against the expansion of the role of organized exchanges beyond CCP to include mandated exchange execution of OTC derivative products.

Mandated Exchange Listing and Execution of OTC Derivative Products: Disruptive and Unnecessary

There has been a lot written and said about mandatory listing of OTC products on exchanges. Given the size and establishment of the OTC derivatives market, migration toward exchange execution has been and will be minimal apart from mandatory legislative action. It seems logical that if the structure of the OTC market lent itself easily to exchange traded products that the exchanges would have stepped in a long time ago to capture that part of the market. It is now being argued that the lack of standard product specifications of OTC derivatives is a market flaw and should be remedied by mandated exchange listing and execution. This argument is inaccurate. OTC derivatives markets use well recognized standards of size, price, payments and maturity dates. Because of these recognized standards, OTC dealers globally are able to efficiently customize and execute trillions of dollars of customer orders within generally acceptable terms to the market. The OTC USD interest rate swap market is an example where mandatory exchange execution would disrupt the efficiency of the breadth and depth of global market liquidity. A US bank dealer working on a multi-national corporate customer's need to swap out of floating Euro and Japanese Yen rates on recently issued long term debt into fixed USD rates in large size in 10 and 20 and 30 yr maturities is not easily facilitated by an exchange. In this scenario, the loss of anonymity due to exchange post-trade reporting requirements could prove harmful to the end user.

The wholesale, institutional nature of global OTC derivatives markets yields little retail commercial application in an exchange environment. Retail product demand provides organized exchanges fair amounts of liquidity and trade flow. The absence of retail appetite for institutional product limits the potential liquidity sources for exchange listed derivative product. I think one should question the appropriateness of certain derivative products for a retail customer base even if demand existed.

There is a class of OTC product that is extremely conducive to exchange execution and can warrant exchange listing. Such products are well standardized with high degrees of trading frequency. Examples of such products include CDX IG Indices, Short-dated IMM swaps, etc.

In summary, although it has been argued that the "opaqueness" of the OTC derivatives market is a detriment to market transparency and price discovery and exchange listing and execution is required to increase the integrity and fairness of the market place, this position does not reflect current market realities. The type of post-trade transparency offered by an exchange will militate against risk taking and siphon off liquidity.

Price Discovery and Pre-Trade/Post-Trade Transparency

The over-the-counter market has a well established system of price discovery and pre-trade market transparency that includes markets such as US Treasuries, US Repo, EM sovereign debt, etc. OTC markets have been enhanced by higher utilization of electronic platform execution. Private broker platforms will interface directly to CCPs and provide automated post-trade services. This was clearly demonstrated in the wake of Enron's collapse and the utilization of CCP facilities by the leading over-the-counter energy derivatives brokers to facilitate trading and liquidity. It is clear to all market participants that financial dislocation and illiquidity will persist across many asset classes and geographies for some time. As alluded to earlier, the unique nature of the OTC market's price discovery process is absolutely essential to the development of orderly trade flow and liquidity, particularly in fixed income credit markets. We are entering a period with an abundance of mispriced securities where professional market information and execution is required. OTC price discovery will require a more focused and integrated execution capability between OTC derivatives and underlying cash markets. This type of exhaustive price discovery service can only be realized in the over-the-counter market via execution platforms that integrate derivatives and cash markets across asset classes (i.e., debt, equities, emerging markets, etc.). This will be critical to the repair of credit market liquidity globally.

Data Warehousing and the Maintenance of Books and Records

Enhanced post- trade transparency for all OTC derivatives transactions can be properly serviced by CCPs and central trade repositories that aggregate trading volumes and positions as well as specific counterparty information. These institutions can be structured to maintain books and records and provide access to regulatory authorities on trade-specific data. The public dissemination of aggregate market data can work to strengthen public confidence in the OTC markets generally.

I would not endorse OTC trade reporting to a level that is currently disclosed by the TRACE (Trade Reporting and Compliance Engine) system. Goldman Sachs recently reported that the value of cash bond trading has fallen each year over year for the past five years. The value of cash bond trading stood at $12,151bn in 2003 and declined to $8,097bn in 2008. There is ample evidence in the secondary OTC corporate bond market that the TRACE system caused dealers to be less inclined to hold inventory and commit capital to support secondary market liquidity. I would suggest to the Committee that fair and equitable trade reporting can be accomplished by nominating CCPs and trade repository/data "warehouses" to provide aggregated post- trade data.

Electronic Execution

OTC markets have been enhanced by the higher utilization of electronic execution. Successful utilization of electronic trade execution platforms is evident in markets such as US Government bonds, US Government bond repo, some European CDS markets. I would caution against mandated electronic execution of OTC cash and derivative products by regulatory action. Effective implementation of such platforms should be the result of a clear demand made by market makers and a demonstrable willingness by dealers to provide liquidity electronically. Our experience in North America is that the dealer community has refrained from electronic execution due to the risk of being held to prices during volatile market conditions. I think recent analysis shows electronic execution throughout the major asset classes has declined by approximately 25% year on year to date. I would strongly endorse the "hybrid" use of electronic platforms where market participants utilize the services of a voice broker in conjunction with screen trading technology.

Mr. Chairman, Mr. Ranking Member and Members of the Subcommittee, I appreciate the opportunity to provide this testimony today. I am pleased to respond to any questions you may have. Thank you.

Testimony of Christian A. Johnson
Professor, S.J. Quinney College of Law, The University of Utah
Before the Subcommittee on Capital Markets, Insurance,
and Government Sponsored Enterprises
of the United States House of Representatives Committee on Financial Services
"Clearing Standardized OTC Derivatives"
June 9, 2009

Mr. Chairman and Members of the Subcommittee:

My name is Christian Johnson. Throughout my career I have been involved in the capital markets and the OTC derivatives market in particular. As a lawyer, I have worked for Milbank Tweed in New York and Mayer Brown & Platt in Chicago. For the past fourteen years I have been a law professor. My writing and research focus has been primarily on OTC derivatives.

Secretary Geithner's articulation (and proposals) on May 13, 2009 of the U.S. Treasury's objectives of regulatory reform of the OTC derivatives market provide a solid foundation to center regulation of the OTC derivatives market. My focus today is on the practicalities and complexities of converting these objectives into statute and regulation and the need to proceed carefully in order to preserve U.S. leadership in the world's capital markets. I believe that Congress should proceed in efforts to reduce counterparty credit risk. However, I believe that the effort to clear all OTC derivatives through regulated central counterparties (CCPs) should be done slowly and methodically and with substantial input from OTC derivatives market participants. Congress should be aware that requiring OTC derivatives to be cleared through CCPs represents a seismic and unproven shift as to how OTC derivatives are traded, processed, assessed and function.

Requiring OTC derivatives to be cleared without laying a proper, practical and acceptable regulatory framework risks harming the competitive position of U.S. financial institutions, driving the OTC derivatives market overseas, and limiting the ability of U.S. companies to hedge their market risks. Currently, the proposed framework for clearing OTC derivatives is skeletal at best, resulting in a virtual vacuum of key information necessary to access how clearing would work for OTC derivatives. In addition, many of the proposals base their feasibility and plans upon the relatively limited successes in the credit default swap market, a narrow and idiosyncratic slice of the OTC derivatives market.

Clearing OTC derivatives is not a new concept. In fact, clearing OTC derivatives to reduce credit risk has always been the "holy grail" of the derivatives industry. Credit risk is so important that the initial decision to hedge using OTC derivatives over exchange-traded derivatives will often center on weighing credit risk against the benefits of customizing the transaction. Unfortunately, the historical compelling advantage of reducing credit risk through clearing has been insufficient to overcome the enormous practical constraints and historical practical, regulatory, and competitive issues in clearing OTC derivatives.

History of OTC Derivative Clearing

Until recently, the U.S. regulatory structure effectively prevented clearing OTC derivatives. In its 1989 policy statement,[1] the CFTC agreed not to regulate OTC derivatives provided that the transactions were individually tailored and that there was no exchange-style offset or clearing. In 1993, clearing was further discouraged when the CFTC promulgated regulations that exempted OTC derivatives from CFTC jurisdiction provided that

[1] CFTC, Policy Statement Concerning Swap Transactions, 54 FR 30694-01, 1989 WL 278866(F.R.) (July 21, 1989).

transactions were not "***standardized*** as to their material terms".[2] Even the Commodity Futures Modernization Act passed in 2000 left regulatory barriers to clearing OTC derivatives.

This regulatory history is important to understand because the OTC derivatives industry developed its trading and operational infrastructure to ***not clear*** OTC derivatives. World-wide, the industry has spent three decades developing processes to trade, collateralize and terminate OTC derivatives without clearing. Because of this history, clearing OTC derivatives will require significant resources and time on the part of dealers and endusers to put into place new products, systems, procedures, back offices and processes to take full advantage of clearing.

Outside the United States, there have been various attempts to clear OTC derivatives. Back in the late nineties, the London Stock Exchange attempted to clear plain vanilla interest rate swaps. There were also similar efforts in Sweden by OM Stockholm. More recently, the Singapore Stock Exchange clears the small and specialized areas of OTC paper oil swaps and foreign freight agreements through its SGX AsiaClear facility.

The failure of the OTC derivatives industry to develop ways to clear OTC derivatives without Federal regulation is troubling. If the benefits of clearing are so compelling as to require the massive market and regulatory overhaul being contemplated, the market should have adopted clearing already. A key factor in such failure (as explained above) involves the regulatory turf war over jurisdiction and regulation of the industry, resulting in requirements that OTC derivatives not be standardized and cleared. Another factor for such failure is that clearing OTC derivatives may be so difficult, cumbersome and costly that is has outweighed

[2] 17 CFR Part 35.

the long term benefits of reducing counterparty and systemic credit risks. Finally, because OTC derivative dealers have developed infrastructure based on **not clearing** derivatives, they may be reluctant to abandon such a system that might undermine their role in the OTC derivatives market.

"Standardized OTC Derivatives"

A key issue to successful clearing is that the transactions should be standardized as fully as possible in order to develop the volume and efficiencies necessary to clear. Exchange traded derivatives can be cleared easily because they are completely standardized except as to price (i.e. maturity, quantity, quality, notional amount). Geithner's May 13th proposal, in contrast to some proposals, only calls for clearing "standardized OTC derivatives", something that at first blush appears to be an oxymoron. OTC derivatives were developed in response to market demand for derivatives that could be customized beyond what was offered in the exchange-traded market.

The key unanswered question in Geithner's proposal is when does an OTC derivative become sufficiently standardized that it is both "required" to be cleared by regulation, and, as a practical matter, is capable of being cleared. Geithner's Letter appears to envision a continuum in which "standardized OTC derivatives" are less standardized than futures but more standardized than "customized OTC derivatives." **See Exhibit 1.** The only concrete guidance as to when a transaction is standardized is "if an OTC derivative is accepted for clearing by one or more fully regulated CCPs, it should create a presumption that it is a standardized contract and thus required to be cleared." This guidance was coupled in the Geithner letter with an anti-abuse rule that provides that "customized OTC derivatives are not used solely as a means to avoid using a CCP."

In determining whether dealers will trade "standardized OTC derivatives" (subject to clearing) or "customized OTC derivatives", the benefits and costs to the dealer of trading standardized OTC derivatives should be considered (**see exhibit 1 - the motivation continuum**). If the dealer's counterparty is not creditworthy, there will be a strong incentive to clear that trade through a CCP to avoid any credit risk. The dealer will be much less motivated to clear a trade if his counterparty is creditworthy or he is fully collateralized. It is possible to envision a scenario in which the dealer will "dump" his less creditworthy counterparties on the clearinghouse and trade outside with his creditworthy customer through customized derivatives

A second factor is the extent to which a particular market or type of transaction is highly specialized and "dominated" by a particular dealer or group of dealers or whether such trading is widespread and essentially "commoditized". If a particular dealer is a principal market maker, he may be more likely to control his trading (and thus his profitability) by trading through customized OTC derivatives. If the market is sufficiently important, the dealer may actually move such trading overseas to avoid standardization and clearing. In contrast, the market may actually require a dealer to clear his trades in a highly competitive market such as interest rates.

A third factor may relate to efficiencies and cost reductions associated with clearing for the dealer. To the extent that it is more efficient, less costly or easier to clear a trade, the more likely the dealer will be to clear. In contrast, if clearing creates additional costs, regulation or inefficiencies, the dealer may prefer to continue with the status quo and trade customized OTC derivatives. The worst case scenario may actually force a dealer overseas if he finds the U.S. regulatory structure too cumbersome, costly or uncertain.

Before one can discuss whether clearing will accommodate the OTC derivatives market, the parameters as to what constitutes a "standardized OTC derivative" need to be established. This is compounded by the problem that it has yet to be decided by Congress whether regulators, market participants, clearinghouses, or others parties, will make that determination. It is clear to me however, that we risk injuring both the domestic OTC derivatives market and our U.S. derivative dealers by making these decisions without significant market input.

Product Complexity

A primary reason why OTC derivatives are not currently being cleared is due to their inherent complexity and non-standardized terms. There are currently essentially only three types of exchange-traded derivative products: futures, options on futures, and options. Each of these products share standardized features that are included in the transaction structure, regardless of what market the transactions are hedging. In contrast, the OTC derivatives market is typically divided into numerous basic products or structures such as forwards, swaps, options, caps, floors, etc., each of which could be infinitely divided into customized structures and all with a variety of cash flows very distinct from exchange traded derivatives. Each of these structures is often individually modified, customized or tailored for an individual market. The credit default swap market and the power/energy markets are examples of OTC derivative areas where market practices and structures have been developed that may differ from other OTC derivatives markets based on their particular hedging needs.

Size of OTC Derivatives Market.

The sheer size of the OTC derivatives market will make the institutionalization of clearing difficult and time consuming. The Bank of International Settlements estimate that the notional amount outstanding at the end of 2008 was $592 trillion, with gross market values of approximately $34 trillion. The OCC estimates that U.S. banks have derivatives trades of approximately $170 Trillion of notional amount outstanding. Although there is little information as to the sheer number of outstanding transactions, bankruptcy files show that Lehman Brothers alone had approximately 930,000 OTC derivatives transactions with thousands of customers at the time of its insolvency. **Exhibit 2** provides a chart showing the composition of the market.

The progress made in clearing credit default swaps is illustrative of both the possibilities and difficulties of clearing OTC derivatives, although the widespread actual clearing of new credit default swaps is still a work in progress. A key factor in this progress is the relatively small size of the credit default swap market in comparison with the OTC derivatives market in general. **See Exhibit 2.** In addition, credit default swaps are typically traded more aggressively and are more uniform than other types of OTC derivatives due to the trading appetite of dealers, endusers and hedge funds. It would be difficult to replicate the quick progress made for the bigger trading areas such as interest rates or currencies.

Another key factor for the focus on credit default swaps has been justifiable concerns about the high volatility and possible losses that can be suffered, making credit default swaps a clear target for risk reduction. Regulators appear to have been focusing initially on one of the riskiest classes of OTC derivative transactions. While losses can be suffered on any types of OTC derivatives, the regulators have focused initially on the most problematic.

Because the regulators are dealing with the most difficult situation, this will provide a good test case for expanding clearing to other areas.

Conclusion. The current financial crisis has highlighted problems and concerns with OTC derivatives. Secretary Geithner has made clearing standardized OTC derivatives a center point of the reforms that he would like to see enacted. Although clearing OTC derivatives would do much to limit counterparty credit risk, Congress should be careful and methodical in this approach to avoid disrupting an important and flourishing market. Moving too quickly without thoughtful and careful planning, could result in injuring a key capital market dominated by the United States. Faced with legal uncertainty or cumbersome regulation, it could drive the current OTC derivatives market overseas, taking with it important clients and expertise. Congress should proceed carefully as it attempts to impose a drastically different business model on a global industry that is currently dominated by our country's leading financial institutions.

Exhibit 1 - *"Standardization" Continuum*

Cleared Transactions
Fully Standardized
Regulated Exchanges with Clearinghouse
Examples: Exchange-traded futures, options on futures and options
Key: only price is negotiated for exchange traded derivatives

Cleared/Not Cleared ?
"Standardized OTC Derivatives"

Test: ***acceptance*** of an OTC derivative by central counterparties (CCP) for clearing should create a standardization presumption
What are standardized terms? little or no guidance on issue
Query: What is the criteria for ***acceptance***?
Example: plain vanilla interest rate swap

Not Cleared Transactions
"Customized OTC Derivatives"

Query: how much customization will overcome presumption?
Anti-abuse Rule: can't use customization to avoid CCP
Concern: how to create legal certainty over customization issue?
Example: derivatives that conform exactly to an underlying asset or liability

Motivation Continuum

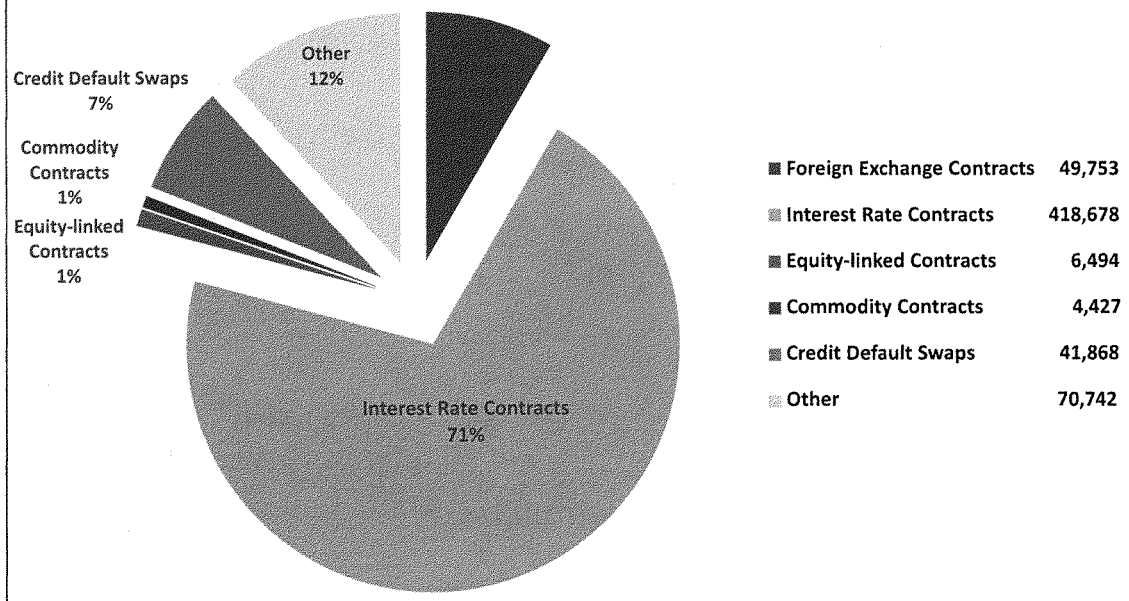
(Factors Affecting Dealer Motivation to Clear)

Motivated to Clear (Standardized)
- High Counterparty Credit Risk (dumping risk)
- Market is highly competitive
- Efficiency/Profitability on exchange
- Routine/commoditized transaction
- Avoiding Federal intervention

Not Motivated to Clear (Customized)
- Low Counterparty Credit Risk (retaining good customers)
- Maintain market control
- More Profitable off exchange
- Proprietary/Confidential trades (protecting competitive position)
- Legal certainty regarding customization

Notional amounts outstanding of OTC derivatives

in billions of U.S. dollars



Source: http://www.bis.org/statistics/otcder/dt1920a.pdf

House Financial Services Subcommittee on Capital Markets, Insurance, and Government-Sponsored Enterprises
Hearing on the Effective Regulation of the Over-the-Counter Derivatives Markets

Statement for the Record
June 9, 2009

3M Company ("3M") appreciates the opportunity to speak to you about the importance of the over-the-counter derivatives market. My name is Timothy Murphy and I am the Foreign Currency Risk Manager for 3M. In this role, I manage currency and commodity risk for the company, as well as the company's share repurchase program. I have worked with over-the-counter derivatives for over 20 years, both as a dealer for a financial institution as well as in my current capacity.

As you may know, 3M is a large U.S.-based employer and manufacturer established more than a century ago in Minnesota. Today, 3M is one of the largest and most diversified technology and manufacturing companies in the world.

3M thanks the Committee for studying the critical details related to reforms to the U.S. financial system and for considering our perspective in this important debate. In examining the concepts outlined in the recent U.S. Treasury proposal on financial system reforms, 3M respectfully urges the Committee to carefully consider the distinct differences among various derivative products and how they are used, and encourages the Committee to preserve commercial users' ability to continue using derivative products to manage various aspects of corporate risk while addressing concerns about stability of the financial system.

Background on 3M

In 1902, five northern Minnesota entrepreneurs created the Minnesota Mining & Manufacturing Company, now known today as 3M. 3M is one of the largest and most diversified technology companies in the world. 3M is home to such well-known brands as Scotch, Scotch-Brite, Post-it, Nexcare, Filtrete, Command, and Thinsulate. 3M designs, manufactures and sell products based on 45 technology platforms and serves its customers through six large businesses: Consumer and Office; Display and Graphics; Electro and Communications; Health Care; Industrial and Transportation; and Safety, Security and Protection Services. 3M achieved $25.3 billion of worldwide sales in 2008.

Headquartered in St. Paul, Minnesota, 3M has operations in 27 U.S. states, including over 60% of 3M's worldwide manufacturing operations, employing 34,000 people. 3M's U.S. sales totaled approximately $9.2 billion in 2008. While its U.S. presence is strong, being able to compete successfully in the global marketplace is critical to 3M. 3M operates in more than 60 countries and sells products into more than 200 countries. In 2008, 64% of 3M's sales were outside the U.S., a percentage that is projected to rise to more than 70% by 2010.

Ahead of their peers, 3M's founders insisted on a robust investment in R&D. Looking back, it is this early and consistent commitment to R&D that has been the main component of 3M's success. Our diverse technology platforms allow 3M scientists to share and combine technologies from one business to another, creating unique, innovative solutions for our customers. 3M conducts over 60% of its worldwide R&D activities within the U.S.

Our commitment to R&D resulted in a $1.4 billion investment of 3M's capital in 2008 and a total of $6.8 billion during the past five years while producing high quality jobs for 3,700 researchers in the U.S. The success of these efforts is evidenced not only by 3M's revenue but also by the 561 U.S. patents awarded in 2008 alone, and over 40,000 global patents and patent applications in force.

Our success is also attributable to the people of 3M. Generations of imaginative and industrious employees in all of its business sectors throughout the world have built 3M into a successful global company. Our interest in speaking with you today is to preserve our ability to continue to invest and grow, creating substantive jobs and providing high quality products to a growing base of customers.

Treasury Proposal.

On May 13, 2009, Treasury Secretary Geithner proposed the establishment of a comprehensive regulatory framework for OTC derivatives that is designed to:

1. Prevent activities in those markets from posing risk to the financial system
2. Promote the efficiency and transparency of those markets
3. Prevent market manipulation, fraud and other market abuses
4. Ensure that OTC derivatives are not marketed inappropriately to unsophisticated parties.

OTC Derivatives: Helping U.S. Companies Manage Risk in a Competitive Marketplace.

While 3M unequivocally supports these objectives, we have strong concerns about the potential impact on OTC derivatives and 3M's ability to continue to use them to protect our operations from the risk of undue currency, commodity, and interest rate volatility.

Derivative products are essential risk management tools used by American companies in managing foreign exchange, commodity, interest rate and credit risks. The ability of commercial users to continue to use over-the-counter ("OTC") derivatives consistent with the requirements of hedge accounting rules is critical for mitigating risk and limiting damage to American businesses' financial results in volatile market conditions.

We urge policy makers to preserve commercial users' access to existing derivative products as you design new regulations. We share the following comments with you in the spirit of working together to address the concerns about the stability of the financial system:

1. **Preventing Activities Within OTC Markets From Posing Risk To Financial System**:

   - We agree that the recent economic crisis has exposed some areas in our financial regulatory system that should be addressed. However, not all OTC derivatives have put the financial system at risk and they should not all be treated the same. The OTC foreign exchange, commodity, and interest rate markets have operated uninterrupted throughout the economy's financial difficulties. We urge policy makers to focus on the areas of highest concern, such as credit default swaps.

   - We would like to work with policy makers to address oversight where warranted, but recommend that it be targeted and not applied to all segments and market participants.

2. **Promoting Efficiency and Transparency within the OTC Markets**:

   - We understand the need for reporting and record keeping. Publicly held companies are currently required by the SEC and FASB to make significant disclosures about their use of derivative instruments and hedging activities, including disclosures in their 10Ks and 10Qs.

   - We would like to work with policy makers on ways to efficiently collect information into a trade repository to further enhance transparency.

   - **We oppose a mandate to move all derivatives into a clearing or exchange environment.** One key characteristic of OTC derivatives for commercial users is the ability to customize the instrument to meet a company's specific risk management needs. Provisions that would require the clearing of OTC derivatives would lead to standardization, thus impeding a company's ability to comply with the requirements of Financial Accounting Standard 133 (FAS 133). The inability to precisely hedge specific risks, whether currency, interest rates or commodities within the context of FAS 133, would expose corporate financial statements to unwanted volatility and uncertainty. Results could include lower valuations for companies as well as a reluctance to undertake as many growth investments because of the need to maintain some dry powder for adverse impacts from unhedged financial risks.

   - While we are mindful of the reduction in credit risk inherent in a clearing or exchange environment, robust margin requirements would create substantial incremental liquidity and administrative burdens for commercial users, resulting in higher financing and operational costs. Capital currently deployed in growth opportunities would need to be maintained in a clearinghouse. This could result in slower job creation, lower capital expenditures, less R&D and/or higher costs to consumers.

     Hedging in the OTC market is customized to fit the actual underlying business risks being hedged. The clearinghouse concept relies upon high volumes of standardized products, a characteristic that does not exist in the customized hedging environment of the OTC market.

By imposing initial and variation margin requirements, clearinghouses will add significant capital requirements for end users, adding significant costs, discouraging hedging, and diverting scarce capital that could otherwise be used in further growing American businesses.

3. **Preventing Market Manipulation, Fraud, And Other Market Abuses.**

   - We support the appropriate regulatory agencies having the authority to police fraud, market manipulation and other market abuses. The CFTC is utilizing its existing statutory and regulatory authority to add significant transparency in the OTC market, receive a more complete picture of market information, and enforce position limits in related exchange-traded markets. The comment period remains open on the CFTC proposal and this work should be allowed to continue.

4. **Ensuring That OTC Derivatives Are Not Marketed Inappropriately To Unsophisticated Parties.**

   - We support modifications to current law that would improve efforts to protect unsophisticated parties from entering into inappropriate derivatives transactions.

Responding to Specific Questions Raised by the Committee.

The Committee has requested that we address some specific questions in this statement. Our responses are provided below:

- **How will clearing affect the OTC market?** The obvious benefits of clearing are the elimination of counterparty risk and the facilitation of "data collection" for executed transactions. By requiring a greater swath of derivatives to be cleared, the "costs" of trading (for both dealers and end users) will rise. Increased costs will come in the form of trading fees, margin/capital requirements, and administrative burden associated with management of the margin requirements. This will likely result in 1) an increase in market concentration among dealers, as marginal players lose profitability, and 2) a decrease in hedging among end users, as margin requirements will pressure their capital/liquidity. The second impact will likely hasten the concentration effect mentioned above. Further, a clearing environment requires the use of standardized instruments. Standardized contracts are unusable to most end users, as they do not permit companies to precisely hedge the risks of their business. Any "mismatch" between business exposure and hedge instrument could result in the end user's loss of hedge accounting treatment (FAS 133), thus creating additional income statement volatility.

- **Should clearing be mandated for all products or only some?** We believe that they should only apply to some of the products. The currency, interest rate, and most of the commodity markets operated well throughout the recent financial crisis. Clearing, however, may be appropriate in other areas where authorities believe there is a high degree of systemic risk present. Likewise, clearing may be appropriate in the case of

standardized instruments. Customized derivatives, however, need to be tailored to meet end users' business risk management needs, making clearing problematic.

It is also important to remember that, particularly with interest rate swaps and foreign exchange, these are global markets. According to the Bank for International Settlements Triennial Central Bank Survey (December, 2007), just 15% of daily FX turnover occurred in the United States, while 24% was the corresponding figure in the interest rate (single currency) market. U.S. based companies could be put at a disadvantage versus their foreign competitors should OTC trading regulations change dramatically in the U.S.

- **What are the pros and cons of exchange trading?** The primary benefits of trading on an exchange are price discovery and similar to clearing, elimination of counterparty risk and the ability to facilitate data collection for executed transactions. Again, for foreign exchange, interest rate, and much of the commodity market, price discovery is not an issue. These markets are much more liquid than their exchange-traded counterparts, and price transparency is excellent. The drawbacks of exchange trading include increased costs in the form of trading fees, margin/capital requirements, administrative burden associated with management of the margin requirements, and the inability to precisely hedge business risks (and risk violation of FAS 133) due to the standardized nature of exchange-traded instruments.

- **What are the potential benefits of increased electronic trading**? From the prospective of an end user, the primary benefits of electronic trading are speed of execution, creation of an immediate paper trail (accuracy), price discovery, and in the case of multi-dealer platforms, the ability to "create" competition among various counterparties. Electronic trading is already prevalent within the currency and interest rate markets. Greenwich Associates estimates (March,2009) that 53% of FX activity during 2008 was executed on electronic platforms.

- **How is balance best achieved between price discovery and liquidity?** Price discovery is really not an issue in the markets in which most end users operate. From a trader's perspective, price discovery is useless if you cannot execute the trade because of poor liquidity. Putting an instrument on an exchange does not ensure that there will be adequate liquidity to trade that instrument.

- **Are books and records appropriate for all trades? Is warehousing appropriate for all trades?** Warehousing is not appropriate for all trades. For example, a large percentage of trades executed in the foreign exchange market (well over 50%) are of very short (1 week and under) duration. It would seem impractical to require warehousing for such transactions. Warehousing probably makes more sense for "term" transactions of longer maturity.

We thank the Committee for the opportunity to share our perspective as an employer interested in preserving and enhancing the global competitiveness of American businesses and workers. 3M looks forward to working with you as the Committee crafts legislation to strengthen the U.S. financial system.

3M Corporate Public Affairs - 1425 K Street, N.W., Suite 300,
Washington, DC 20005. 202.414.3000

Testimony of Robert Pickel
Chief Executive Officer,
International Swaps and Derivatives Association
Before the
Subcommittee on Capital Markets, Insurance, and Government Regulation
Committee on Financial Services
United States House of Representatives

June 9, 2009

Mr. Chairman and Members of the Subcommittee:

Thank you very much for inviting ISDA to testify today. We are grateful for the opportunity to discuss public policy issues regarding the privately negotiated, or OTC, derivatives business. Our business provides essential risk management and cost reduction tools for a broad swath of users. Additionally, it is an important source of employment, value creation and innovation for our financial system – it is one that employs tens of thousands of individuals in the United States and benefits thousands of American companies across a broad range of industries.

* * *

About ISDA

ISDA, which represents participants in the privately negotiated derivatives industry, is the largest global financial trade association, by number of member firms. ISDA was chartered in 1985, and today has over 830 member institutions from 56 countries on six continents. These members include most of the world's major institutions that deal in privately negotiated derivatives, as well as many of the businesses, governmental entities, investment managers and other end users that rely on over-the-counter derivatives to manage efficiently the financial market risks inherent in their core economic activities.

Since its inception, ISDA has pioneered efforts to identify and reduce the sources of risk in the derivatives and risk management business. Among its most notable accomplishments are: developing the ISDA Master Agreement; publishing a wide range of related documentation materials and instruments covering a variety of transaction types; producing legal opinions on the enforceability of netting and collateral arrangements; securing recognition of the risk-reducing effects of netting in determining capital requirements; promoting sound risk management practices; and advancing the understanding and treatment of derivatives and risk management from public policy and regulatory capital perspectives

* * *

In my remarks today, I would briefly like to underscore ISDA's and the industry's strong commitment to identifying and reducing risk in the privately negotiated derivatives business:

- We believe that OTC derivatives offer significant value to the customers who use them, to the dealers who provide them, and to the financial system in general by enabling the transfer of risk between counterparties.

- We recognize, however, that the industry today faces significant challenges, and we are urgently moving forward with new solutions rather than remaining stuck in the status quo.

- We have delivered and are delivering on a series of reforms in order to promote greater standardization and resilience in the derivatives markets.

- These developments have been closely overseen and encouraged by regulators, who recognize that optimal solutions to market issues are usually achieved through the participation of market participants.

- As ISDA and the industry work to reduce risk, we believe it is essential to preserve flexibility to tailor solutions to meet the needs of customers. Efforts to mandate that privately negotiated derivatives business trade only on an exchange would effectively stop any such business from being conducted. Requiring exchange trading of all derivatives would harm the ability of American companies to manage their individual, unique financial risks and ultimately, harm the economy.

Mr. Chairman, let me assure you that ISDA and our member firms clearly understand the need to act quickly and decisively to implement the important measures that I will describe in the next few minutes.

* * *

About OTC Derivatives

OTC derivatives exist to serve the risk management and investment needs of end-users. These end-users form the backbone of our economy. They include over 90% of the Fortune 500, 50 percent of mid-sized companies and thousands of other smaller American companies.

The industry employs thousands of individuals, most of whom function in middle and back office capacities, handling legal, documentation, collateral and operational issues.

It is important to understand that an OTC derivative – whether it's an interest rate swap or a credit default swap -- does not in and of itself create risk. It's merely a transaction that shifts risk from one firm, or counterparty, to another.

The development of OTC derivatives has followed the development of the American economy. For centuries, foreign exchange transactions have facilitated trade and helped American businesses expand; they were one of the original banking powers recognized in the National Bank Act of 1863.

The first OTC derivative linked to interest rates was transacted in the early 1980's between IBM and the World Bank, helping IBM raise funds on more favorable terms.
Credit derivatives first appeared in the mid-1990s as a tool to help banks diversify the credit risk in their loan portfolio. Since then, they have grown into a vital risk management and diversification tool.

In each case, the need for these privately negotiated derivatives products was driven by the needs of end-users. Their growth was a direct function of their utility to end-users. If end-users did not want these products, they would not exist.

* * *

Understanding Notional Amounts

Before I discuss current regulatory and industry initiatives, there is one aspect of the OTC derivatives markets that bears some explanation.

As you may know, the industry's size is usually measured in notional amounts outstanding. The reason for using notional amounts is that it is relatively simple to identify and gather. In addition, it is consistent over time; that is, the notional amount for a deal does not change except in limited cases.

While it is a useful measurement tool, notional amount overstates the level of activity in the OTC derivatives markets. More problematic, however, is the dramatic misinterpretation of notional amount as a measure of risk. In fact, notional amounts are only loosely related to risk.

In the OTC derivatives markets, a firm will often enter into one contract to offset exposure from another contract. As it does so, it doubles the level of notional outstanding. But it does not increase the level of risk in the system.

Statistics compiled by the Depositary Trust and Clearing Corporation's Trade Information Warehouse illustrate this point. The Trade Information Warehouse is a global repository and post-trade processing infrastructure for over-the-counter (OTC) credit derivatives. According to data that it makes publicly available, there is currently about $5.6 billion of credit default swap protection on Johnson & Johnson. However, after stripping away all offsetting positions that firms may have, the net notional value of CDS on the company is $900 million.

Looking at the CDS business in aggregate, there is currently about $28 trillion in gross notional outstanding. However, on a net basis, according to DTCC, the level of exposure is $2.5 trillion, or less than 10 percent of the notional.

Obviously, this $2.5 trillion is still a large number, but please keep in mind what it represents: every reference entity on which every CDS contract is based would have to default for payouts to be that high.

* * *

Current Regulatory and Industry Initiatives

Last month, Treasury Secretary Geithner announced a comprehensive regulatory reform proposal for the OTC derivatives markets. The proposal is an important step toward much-needed reform of financial industry regulation. ISDA and the industry welcomed in particular the recognition of industry measures to safeguard smooth functioning of our markets.

The Treasury plan proposes to require that all derivatives dealers and other systemically important firms be subject to prudential supervision and regulation. ISDA supports the appropriate regulation of financial institutions that have such a large presence in the financial system that their failure could cause systemic concerns.

Most of the other issues raised in the Treasury proposal – and the questions you have asked of the panelists today -- were addressed in a letter that ISDA and industry participants delivered to the Federal Reserve Bank of New York earlier this month.

As you may know, a Fed-industry dialogue was initiated under Secretary Geithner's stewardship of the New York Fed some four years ago. This dialogue has led to substantial and on-going improvements in the key areas of the OTC derivatives infrastructure:

- Increased standardization of trading terms;
- Improvements in the trade settlement process;
- Greater clarity in the settlement of defaults;
- Significant positive momentum toward central counterparty clearing;
- Enhanced transparency; and
- A more open industry governance structure.

In our letter to the New York Fed this month, ISDA and the industry expressed our "firm commitment to strengthen the resilience and robustness of the OTC derivatives markets." As we stated, "We are determined to implement changes to risk management, processing and transparency that will significantly transform the risk profile of these important financial markets…"

We outlined a number of steps toward that end, specifically in the areas of information transparency and central counterparty clearing.

* * *

Central Counterparty Clearing

In terms of clearing, the industry recognizes that it is an important public policy consideration – and that it can provide many benefits to the market, including helping to identify systemic risk.

Today, the industry clears the majority of inter-dealer interest rate swaps. Plans have recently been announced to make the industry's clearing platform available to the buy-side as well.

For credit default swaps, the industry has committed to migrating standardized contracts onto a clearing platform, as per Secretary Geithner's proposal. It is also the industry's goal to achieve buy-side access to CDS clearing (through either direct CCP membership or customer clearing) no later than the end of this year.

While there is widespread recognition of the benefits of clearing, there is also widespread acknowledgement, including in the Treasury proposal, that there is a continued need for customized OTC derivatives. Due to their inherent nature – as flexible risk management tools designed specifically to meet particular needs -- not all OTC products can be cleared.

Nor, for this same reason, can all OTC products trade on an exchange. Here's why: stocks, bonds, commodities – when you buy or sell them, most of the trade terms are fixed. All you really need to do is indicate the name and quantity that you want to buy, and you can execute the trade. But with customized OTC derivatives, the trade terms are determined by the end customer and the dealer to fit a specific need. IBM's financial situation and needs are different from GE's, and GE's are different from John Deere's. There is simply no way to standardize this end customer demand.

In fact, mandating that interest rate swaps or credit default swaps be traded on an exchange is likely to result only higher costs and increased risks to the manufacturers, technology firms, retailers, energy producers, utilities, service companies and others who use OTC derivatives in the normal course of business. It will put American businesses at a significant disadvantage to their competitors around the world.

* * *

Information Transparency

I would next like to discuss the issue of information transparency.

The Treasury proposal is designed to ensure that regulators would have comprehensive and timely information about the positions of each and every participant in all OTC derivatives markets.

This new framework calls for trades to be cleared or, if not cleared, to be reported to a trade repository. ISDA and the industry support this framework, as it would provide policymakers with access to the information they need to carry out their authorities under the law.

As stated in the Fed letter, we favor implementing data repositories for non-cleared transactions in the OTC derivatives markets. When combined with the information available from clearinghouses, this should – as the Treasury proposal noted -- enable the industry to meet its recordkeeping and reporting obligations.

Any efforts taken beyond these measures would appear to be duplicative and may add to the cost of doing business. As a result, any such proposals should be carefully scrutinized to see whether and how they add value beyond the provisions of the Treasury proposal and the industry's commitment to the New York Fed.

One additional issue that has been raised in the recent policy debate is whether standardized contracts that can be cleared should also be traded on an exchange. The industry's view on this is two-fold.

First, we believe that the public policy goals of greater transparency as discussed above will be met in a clearinghouse/non-cleared trade repository environment. In this sense, requiring standardized contracts to be exchange traded would not produce any additional information for or benefits to policymakers.

It could, however, increase the costs of doing business for industry participants. That is why we have long believed that market forces are best positioned to determine the most efficient and effective way to trade OTC contracts. It's possible that there are some contracts that would prove to be very successful if they traded on an exchange. It's also possible that electronic execution systems may increase in popularity due to the benefits they offer. These, however, are properly choices for market participants.

* * *

Summary and Conclusion

ISDA and the OTC derivatives industry are committed to engaging with supervisors, globally, to expand upon the substantial improvements that have been made in our business since 2005.

We know that further action is required, and we pledge our support in these efforts. It is our belief that much additional progress can be made within a relatively short period of time. Our clearing and transparency initiatives, for example, are well underway, with specific commitments aired publicly and provided to policymakers.

As we move forward, we believe the effectiveness of future policy efforts will be driven by how well they answer a few fundamental questions:

- First, do they recognize that OTC derivatives play an important role in the US economy?
- Second, do the policy efforts enable firms of all types to improve how they manage risk?
- Third, are the policy efforts based on a complete understanding of how the OTC derivatives markets function and their true role in the financial crisis?

Mr. Chairman, and committee members, the OTC derivatives industry is an important part of the financial services business in this country and the services we provide help companies of all shapes and sizes.

Let me assure you that we in the derivatives industry do recognize the challenges that we face as we seek to enact a comprehensive and prudent system of regulatory reform. As I have indicated, we are fully committed to working with legislators and supervisors to address the key issues ahead.

Thank you for your time.

# # #

Atlanta Calgary Chicago Houston London New York Singapore

WRITTEN TESTIMONY OF JEFFREY S. SPRECHER
CHIEF EXECUTIVE OFFICER
INTERCONTINENTAL EXCHANGE, INC.
BEFORE THE HOUSE
COMMITTEE ON FINANCIAL SERVICES
SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND
GOVERNMENT SPONSORED ENTERPRISES

JUNE 9, 2009

Chairman Kanjorski, Ranking Member Garrett, I am Jeff Sprecher, Chairman of the Board of Directors and Chief Executive Officer of IntercontinentalExchange, Inc., or "ICE." I very much appreciate the opportunity to appear before you today to testify on over the counter (OTC) derivatives regulation.

Background

In the mid 1990s, I developed power plants in California and witnessed the state's challenge in launching a spot market for electricity. The problems arose from a complex market design and partial deregulation. I was convinced there was a more efficient and transparent way to manage price risk in the wholesale markets for natural gas and electric power. Therefore, in 1998, I purchased a small energy trading platform in Atlanta, which was then called the Continental Power Exchange. This became the electronic over-the-counter (OTC) energy platform when ICE was formed in 2000. The ICE OTC platform was designed to bridge the void that existed between the voice brokered OTC markets which were bilateral and opaque, and the open-outcry futures exchanges, which were inaccessible or lacked the products needed to hedge in the power markets.

Since the launch of its electronic OTC energy marketplace in 2000, ICE has acquired and now operates three regulated futures exchanges through three separate subsidiaries, each with its own governance and regulatory infrastructure. The International Petroleum Exchange (renamed ICE Futures Europe), was a 20-year-old exchange specializing in energy futures when acquired by ICE in 2001. Located in London, it is a Recognized Investment Exchange, or RIE, operating under the supervision of the UK Financial Services Authority (FSA). In early 2007, ICE acquired the 137-year-old "The Board of Trade of the City of New York" (renamed ICE Futures U.S.), a CFTC-regulated Designated Contract Market (DCM) headquartered in New York and specializing in agricultural, foreign exchange, and equity index futures. In late 2007, ICE acquired the Winnipeg Commodity Exchange (renamed ICE Futures Canada), a 120-year-old exchange specializing in agricultural futures, regulated by the Manitoba Securities Commission, and headquartered in Winnipeg, Manitoba.

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ICE also owns and operates five derivatives clearinghouses:

- ICE Clear US, a Derivatives Clearing Organization under the Commodity Exchange Act, located in New York and serving the markets of ICE Futures US;

- ICE Clear Europe, a Recognized Clearing House located in London that serves ICE Futures Europe and ICE's OTC energy markets;

- ICE Clear Canada, a recognized clearing house located in Winnipeg, Manitoba that serves the markets of ICE Futures Canada.

- ICE Trust, a U.S.-based CDS clearing house. In March 2009, the Federal Reserve Board of Governors approved ICE Trust's application to become a member of the Federal Reserve System. ICE Trust began clearing CDS transactions on March 9, 2009.

- The Clearing Corporation, established in 1925 as the nation's first independent futures clearing house. It provides the risk management framework, operational processes and clearing infrastructure for ICE Trust. The Clearing Corporation also provides clearing services to the Chicago Climate Futures Exchange.

ICE has an established a track record of working with OTC market participants to introduce transparency and risk intermediation into markets. We have also worked closely with regulators to improve supervision and access to information. Along with the introduction of electronic trading in energy markets ICE pioneered the concept of cleared OTC energy swap contracts. These changes to a traditionally opaque, bilateral market structure, made in response to a market crisis in the energy markets in 2002, have dramatically transformed the way risks are managed by market participants around the globe. These reforms have been replicated by nearly every other exchange in an effort to develop commercial services addressing the vast and global OTC marketplace across interest rates, commodities, credit, foreign exchange and equity derivatives. With this background, I come before you today to testify on the regulation of OTC derivatives.

Need for OTC Regulation

Appropriate regulation of OTC derivatives is of utmost importance to the financial system. Presently, many derivatives transactions are largely exempt from regulation by financial regulators. ICE believes that increased transparency and proper risk and capital management, coupled with legal and regulatory certainty, are central to OTC market financial reform and to restoring confidence to these vital markets.

In discussing the need for OTC regulation, it is important to understand the size of the OTC derivatives markets and their importance to the health of the U.S. economy. Derivatives are commonly thought to be complex financially engineered products transacted between large investment banks. However, the reality is more complex, as an OTC derivative can encompass anything from a forward contract (a promise of delivery in the future) between a farmer and a grain elevator to a complex instrument like a credit derivative or collateralized debt obligation. Derivatives are central to the U.S. and global economy: 94% of the world's 500 largest companies use derivatives to manage their financial risk.[1] These companies are not constrained to the financial sector; health care, industrial corporations, and technology companies regularly use derivatives to manage risk. Importantly, use of derivatives is not confined to large corporations, as small utilities, farmers, manufacturing companies and municipalities use derivatives to hedge risk. It also bears emphasizing that derivatives — both futures and OTC instruments — will play a central role in any "cap and trade" program to combat climate change.

Examining the scope, complexity and importance of the OTC derivatives, one draws the conclusion that "one size fits all" regulation will not work. Simply banning products or participants will only create further disruptions in the market and harm U.S. businesses and markets, leading to a reliance on other venues outside the US to manage risk. Financial regulation must be well defined, flexible and prudential. Flexibility is important, as it allows regulators to respond to future problems, not just yesterday's crisis. Prescriptive law and regulations hamper regulatory flexibility and create regulatory gaps. To be flexible, regulators must be prudential, understanding their markets and tailoring regulation to ensure market integrity and consumer protection.

Regulators need clear lines of jurisdiction. Several of the OTC instruments at the heart of the financial crisis were in regulatory gray areas between one or more regulators. Regulators need certainty that they have the power to take actions to uphold the public good. Likewise, market participants need the certainty that their business transactions will not be held to conflicting standards of conduct. Further, regulatory certainty eliminates the possibility of regulatory arbitrage, or long-term damage to the competitiveness of the U.S. in a highly competitive global environment.

The need for certainty extends beyond U.S. borders. It is vital to recognize that the OTC derivatives markets are international: the majority of the large companies globally use derivatives, and they conduct these transactions with U.S. counterparties. Thus, U.S. regulators must work with international regulators from a common set of regulatory principles. Harmonizing regulatory systems across countries will eliminate the probability that OTC derivatives transactions will flee to jurisdictions where they are least regulated or least restricted.

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[1] Study by the International Swaps and Derivatives Association (April 23, 2009). http://www.isda.org/press/press042309der.pdf

Clearing and Electronic Trading

Transparency is a pre-requisite for efficient markets and effective regulation. In ICE's introduction of electronic trading and clearing to the power markets — which were the domain of voice brokered, bilateral transactions — brought transparency to previously opaque markets. Now, OTC energy contracts are centrally listed and predominately cleared, with attendant benefits such as counterparty risk mitigation as well as a complete audit trail of all transactions. Overall, ICE's development of clearing and electronic trading has promoted competition and innovation in the energy derivatives market, to the benefit of both market participants and consumers. The increased liquidity from clearing and electronic trading has resulted in lower transaction costs and tighter bid/ask spreads, reducing the cost of hedging energy price risk and lowering operating costs for businesses.

Recently, ICE began clearing credit default swaps, or CDS, through its regulated central clearing house, ICE Trust. Credit derivatives facilitate the hedging of the risk of a credit event, such as the downgrade in a company's debt, or the risk of default. In a basic credit default swap, the buyer agrees to make a payment or series of payments to the seller. In return, the seller agrees to pay the buyer in the event of the default. Traditionally, the credit market was organized like interest rates, foreign exchange and other OTC markets: most transactions are bilaterally executed through intermediaries rather than through an exchange. Critically, the bilateral nature of the market leaves participants exposed to counterparty risk, among other things, such as a lack of an accepted mark-to-market on a daily basis. In times of great financial distress, like the present, this risk can have systemic implications. When financial counterparties do not trust each other, and are unable to hedge their credit risk, then they stop lending to each other and the credit markets freeze. However, counterparty risk can be mitigated through clearing.

ICE Trust began clearing credit default swaps on March 9, 2009. Since then, ICE Trust has cleared over $800 billion in credit default swaps, with resulting open interest, or net exposure, of $125 billion. With the support of its twelve clearing members, ICE Trust has grown both in volume and the number of contracts cleared. With each clearing cycle, ICE Trust reduces counterparty and systemic risk. The results are transparent to the public: open interest, volume, and pricing information are posted on ICE's website.[2] ICE has made substantial investments to develop an industry leading risk model, independent governance and a legal framework to bring confidence, transparency and regulation to these markets.

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[2] Open interest and volume can be found at ICE's website: https://www.theice.com/marketdata/reportcenter/reports.htm?reportId=98. Pricing data can be found here: http://www.markit.com/cds/cds-page.html

Mandating Clearing and Exchange Trading

Turning to the topic at hand, clearing and electronic execution and trade processing are core to ICE's business model. As such, ICE would clearly stand to benefit commercially from legislation that required all derivatives transactions conducted in the U.S. to be cleared and traded "on exchange". Clearing all OTC derivatives and the trading of OTC derivatives on a transparent electronic platform may provide additional risk management and, potentially, additional price transparency. However forcing all OTC derivatives to be cleared and traded on exchange would likely have many unintended consequences.

In the derivatives markets, clearing and exchange trading are separate concepts. At its core, exchange trading is a service, offering order matching to market participants. While futures exchanges can serve a valuable price discovery function; listing a contract on an exchange does not necessarily mean better price discovery. Exchange trading works for the highly liquid products, such as the Russell 2000 or the Brent Crude Oil contract that appeal to a broad set of market participants. However, for other markets, exchange trading is not the best solution, as the market may be illiquid, with wide bid/offer spreads, leading to poor or misleading price signals. Nonetheless, these illiquid products can still offer a value to hedgers, and thus have a place in the OTC derivatives markets. Forcing trades onto exchanges would only increase costs to hedgers while potentially providing misleading pricing information.

Turning to clearing, this technique greatly reduces counter party and systemic risk in the derivatives markets for standardized contracts. However, forcing unstandardized contracts into a clearinghouse could actually increase market risk. Accurate price discovery is essential for the clearinghouse to mark open positions to market. Where market depth is poor or contracts are not standardized, the margin and risk mutualization cost will be very high -- and thus uneconomic for market participants -- given the necessary conservatism on the part of a clearing house. So while ICE certainly supports clearing as much standardized product as possible, there will always be products which are either non-standard, not sufficiently liquid, or that do not have enough interest in them for clearing to be practical, economic or necessary. While the illiquid and unstandardized contracts should not be forced to be cleared, firms dealing in these derivatives should report them to regulators, so regulators have a clear and total view of the markets.

U.S. businesses, like all businesses around the globe, often require bespoke OTC derivatives. Exchange traded contracts must appeal to the broadest set of market participants. While these contracts have a broad set of market participants, the contracts

do not offer efficient hedging services to all. For example, airlines use bespoke fuel swaps to hedge jet fuel for particular locations where no futures contract exist. When no exchange traded substitutes are available to efficiently hedge this risk, airlines take their hedging needs to intermediaries who write custom swaps, and hedge this and other clients' exposure on futures and OTC exchanges. This bespoke hedging need is clearly not limited to energy, as many firms hedge foreign currency risk through OTC derivatives. In fact energy is among the smallest of the OTC markets globally. Similarly, agricultural companies use OTC swaps to hedge price risk that cannot be offset in the futures markets. In sum, forcing exchange trading would increase risk and costs to U.S. firms; while forcing all OTC derivatives to be cleared would increase risk to clearinghouses and result in uneconomic margin for certain products.

In any financial reform measure, it is important to note the benefits of the CFTC's tiered regulatory structure for exchanges and electronic trading platforms. As stated above, futures exchanges list contracts that appeal to the broadest set of market users. In 2000, Congress recognized that electronic platforms could fill an important gap between the strictly off-exchange voice brokered markets and the traditional futures exchange to trade OTC derivatives. ICE's OTC platform is an exempt commercial market (ECM). Trades on an ECM are principal to-principal, with no intermediaries, between highly sophisticated parties. As an electronic platform, ICE can list hundreds of niche OTC energy products that appeal to limited number of market participants. When traded on an ECM, these transactions are transparent to participants and to regulators. ECM trading encourages standardization, which in turn encourages clearing. In the ICE's experience, when a market is able to be cleared, market participants overwhelmingly prefer to have their transactions cleared. If the ECM lists a product that grows into a contract that serves a significant price discovery function, then the ECM is obligated to place exchange like regulation on trading of that contract. Retaining this tiered regulatory structure and expanding it to other markets will be important to achieving the goals of transparency.

Balancing Price Discovery and Liquidity

Many OTC derivatives markets serve a price discovery function for the underlying cash market. It is important that this function be protected. Participants such as commercial users, investment banks, and hedge funds bring different sets of information to the market and form a price consensus. This price discovery process is essential to the U.S. financial system. Thus, it is vitally important that market participants not be banned and that markets not favor one type of participant. For example, some have called for limiting futures markets to commercial users of the underlying cash market. Unfortunately, banning financial participants would ultimately lead to cartel pricing. Financial participation helps increase liquidity, which makes it easer for market participants to get in and out of positions at a given price, and in fact

makes it more difficult for any individual participant to manipulate the market by creating an artificial price. Financial participants are the counterparties to the commercial entities who hedge their production or consumption. Finally, liquidity is essential for efficient clearing and pricing.

In summary, price discovery and liquidity cannot be balanced. Liquidity is necessary for price discovery; a more liquid market creates better pricing information. Thus, there is no existing market that is too liquid. Limiting liquidity or market participants necessarily hampers a market's price discovery process, including market transparency and efficiency.

Conclusion

ICE has always been and continues to be a strong proponent of open and competitive markets, and of appropriate regulatory oversight of those markets. As an operator of global futures and OTC markets, and as a publicly-held company, ICE understands the importance of ensuring the utmost confidence in its markets. To that end, we have continuously worked with regulatory bodies in the U.S. and abroad in order to ensure that they have access to all relevant information available to ICE regarding trading activity on our markets. We have also worked closely with Congress and regulators in the U.S. and abroad to address the evolving regulatory challenges presented by derivatives markets and will continue to work cooperatively for solutions that promote the best marketplace possible.

Mr. Chairman, thank you for the opportunity to share our views with you. I would be happy to answer any questions you may have.

Testimony of Don Thompson
JPMorgan Chase & Co. (JPMC)
on behalf of the Securities Industry and Financial Markets Association (SIFMA)
House Committee on Financial Services
Subcommittee on Capital Markets, Insurance and GSEs
June 9, 2009

Chairman Kanjorski, Ranking Member Garrett, and Members of the Subcommittee, my name is Don Thompson, and I am a Managing Director and Associate General Counsel at JPMorgan Chase & Co. I provide legal advice with respect to the full range of JPMC's over-the-counter (OTC) derivatives businesses. Thank you for inviting me to testify at today's hearing.

Benefits of OTC Derivatives to Our Economy

For the past 30 years, American companies have used OTC derivatives to manage interest rate, currency, and commodity risk. Beginning in the early 1970s, global economic forces began to affect American companies, regardless of business type or scope of operations, and two key events are especially noteworthy:

(1) the United States dropped the gold standard in 1971, which led to floating exchange rates;
(2) severe oil price shocks led to increased volatility in commodity prices and interest rates.

These events presented complex financial risk management challenges that, left unmanaged, would have negatively affected many companies' financial performance and possibly even their viability. In response to marketplace demand, financial products, such as futures contracts and OTC derivatives, were developed to provide companies with tailored and flexible risk management tools.

Since their inception, OTC derivatives have been used by companies that are exposed to risks in the course of their day-to-day operations that they are unable to manage themselves. As a result, interest rate, currency and commodities derivatives became important and commonplace tools for these companies in 1980s and 1990s. Credit derivatives were developed over the past 10-12 years and – when used responsibly -- have served a similar, useful role in managing credit risk. Since then, OTC derivatives have become a vital part of our economy. According to the most recent data, 92% of the largest American companies and over 50% of mid-sized companies use OTC products to hedge risk.

The role of entities like J.P. Morgan in the OTC derivatives market is to act as financial intermediaries. In much the same way that financial institutions act as a go-between with investors seeking returns and borrowers seeking capital in the capital markets, we work with companies and other end-users looking to mange their risk with entities looking to take on those risks.

In this role, we work with many American and global companies and help them manage their risks. Recently, many of our clients have expressed great concern on the affects of the proposed legislative and regulatory changes on their businesses. Clients such as Chesapeake,

Constellation, Medtronic and Cargill are very worried about the unintended consequences of these policy proposals, particularly at a time when our economy remains fragile. In our view, the effect of forcing such companies to face an exchange or a clearinghouse would limit their ability to manage the risks they incur in operating their business and have negative financial consequences for them via increased collateral and margin posting. These unintended repercussions have the potential to harm an economic recovery. We welcome the opportunity to discuss these issues today.

Let me first discuss in detail some of the benefits of OTC derivatives.

(1) Tailored Risk Management

Companies today demand customized solutions for risk management, and the OTC market provides them.

Interest rates

As an example, a typical OTC derivative transaction might involve a company that is borrowing in the loan market at a floating interest rate. This product is similar to a variable rate home mortgage. To protect themselves against the risk that interests rate will rise, the company will enter into an interest rate swap. These swaps generally enable the company to pay an amount tied to a fixed interest rate, and the financial institution will pay an amount tied to the floating rate of the loan. Similar to the homeowner in a variable rate mortgage, if rates rise steeply, they have some protection. Every aspect of the swap can be tailored to the company's needs to ensure that the company is able to match its risks exactly. It is that customization that makes OTC derivatives so useful to companies.

Currencies and commodities

OTC transactions are used in a similar manner by a wide variety of companies seeking to manage volatile commodity prices and foreign exchange fluctuations.

For example, a company may be importing raw materials into the United States to manufacture a product that is sold all around the world – such as aircraft. That American company will want to protect themselves and their shareholders from bearing undue risk if the price of the dollar fluctuates against the currencies it uses to buy raw materials. With no change to its business model, it could find itself in a situation where the price to produce the planes is higher than the profit it makes from selling those planes, simply due to exchange fluctuations outside its control. It could also find itself exposed to changing prices in commodity raw materials, such as steel or fuel. Any responsible company would act to prevent putting itself in this kind of jeopardy and its employees, clients and shareholders at great risk.

In this example, the aircraft company will purchase a currency derivative in the OTC foreign exchange market that allows it to lock in the exchange rate for each of the currencies that it is exposed to. The company would also likely purchase a commodity derivative that will lock in the price of the raw materials. These transactions allow the aircraft company to focus on its core competency -- building planes -- rather than fearing foreign exchange or commodity price risk.

It is important to note that although interest rate and currency derivatives currently are offered on US exchanges, few corporations use these exchange-traded contracts for two main reasons:

- Exchange-traded products are, by necessity, highly standardized and not customized. As a result, companies are unable to match their unique risks to the products that are offered on exchanges; and

- Exchange/clearinghouse collateral requirements are onerous. Clearinghouses (including those that support exchanges) require that participants pledge only liquid collateral, such as cash or short-term government securities, to support their positions in the market without regard to the credit quality of the company. However, companies need their most liquid assets for their working capital and investment purposes. Requiring a company to post cash as collateral means taking that cash out of the company's core business, which hurts the company and its employees.

(2) Collateral

In addition to customization, the other main benefit of OTC derivatives is flexibility with respect to its ability to provide collateral to support its derivative transaction. In the interest rate swap example, the financial institution may ask the company to provide credit support to mitigate the credit risk that it faces in entering into this transaction. Most often, that credit support comes in the same form as the collateral provided for the loan agreement. Thus, if the loan agreement is secured by property, fixtures and/or receivables, that same collateral would also be used to secure the interest rate swap. As a result, the company does not have to incur additional costs in obtaining and administering credit support for the interest rate swap.

The flexibility of the credit support arrangement provided by OTC products is best highlighted by contrasting it to the posting requirements the company would have faced had it executed its interest rate swap transaction on an exchange. The CME Group and its predecessor institutions pioneered risk management products and currently trade a wide variety of interest rate futures and options contracts, including interest rate swap futures, and all companies are free to enter into these contracts. (In fact, JPMC is one of the biggest users of these exchange-traded risk management contracts). However, the exchange requires a high degree of standardization in the contracts it trades, and requires that transacting entities post cash or cash-equivalent collateral to support their trades. In addition, collateral calls may be made up to twice daily, to account for market fluctuations. This requirement of readily marketable collateral is necessary to ensure the clearinghouse is protected from risk; the clearinghouse or clearing member must instantaneously apply that collateral in the event of a participant default.

A clearinghouse is a very highly collateralized central counterparty that becomes the buyer to every seller and the seller to every buyer. In order for the clearinghouse to perform its credit risk mitigating role in the financial system, it is essential for the clearinghouse to be able to calculate accurately how much collateral it needs from a participant to secure the transactions on which it faces that participant. This can only be done for derivatives that are sufficiently standardized and liquid to enable the clearinghouse to obtain prices quickly so that it can calculate how much collateral is needed. This cannot be done with illiquid or non-standard transactions.

Thus, in the example above, if the company had executed its hedge on the exchange, it would have had to post cash or readily marketable collateral upfront and up to twice daily thereafter. By entering into the transaction in the OTC market, the company is able to use the same collateral that it already posted to secure its loan, with no additional liquidity demands or administrative burdens. This collateral is high quality, being the basis for the extension of credit in the loan agreement, but posting it does not affect the company's operations or liquidity. This flexibility to use various forms of credit support significantly benefits companies.

(3) Basis Risk

Another benefit to companies is that unlike exchange-traded derivatives, OTC derivatives match very closely the actual risks that companies need to manage. Without this fit, companies are exposed to so-called "basis risk" -- that is, the difference between the risk that is incurred and the benefit of the hedge. To the extent that there is misalignment of the risk and the hedge, companies will bear the risk of the difference, which could be significant, depending upon the volatility of prices and the level of standardization of the hedge. In fact, the precision of the "fit" determines whether companies qualify for hedge accounting, delineated in FAS 133, which has been developed to address the accounting for hedging transactions. Because of the tailored solutions available through the OTC market, using OTC derivatives is the easiest and most effective way for companies to achieve hedge accounting. Without hedge accounting, companies will see significant volatility in their financial reporting, obscuring the true value of their business.

While we believe that exchanges play an invaluable role, not all entities can or want to trade on exchange. Currently, end-users have the choice of entering into their hedging transactions on an exchange or in the OTC market. For most end-users, OTC derivatives are critical to their risk management, and risk management is critical to their operations in volatile times. We believe that end-users should continue to be allowed to have the choice to use these products.

Problems with use of OTC Derivatives

The discussion of the benefits of OTC derivatives is not to deny that there have been problems with their use, and it is essential that policymakers examine the causes of the financial crisis to ensure it is never repeated. While JPMC does not believe that OTC derivatives were the cause of the financial crisis, it is clear that AIG's near-failure and the consequent investment by US taxpayers involved a subset of credit default swaps as well as poor risk management by its counterparties. In addition, the regulatory framework did not subject AIG to a thorough, comprehensive review--the kind of regulatory oversight to which a national or state bank's derivatives activities are currently subject.

Despite the failures at AIG, it is critical to point out that the markets in these products have continued to be available for end-users, and defaults have been processed as the market infrastructure envisioned.[1] Nonetheless, we believe there is an urgent need for reform to

[1] For example, Lehman Brothers had a portfolio of OTC interest rate derivatives transactions that had an aggregate notional value of $9 trillion and that was cleared through LCH Clearnet, a clearinghouse that clears the majority of OTC interest rate swap transactions entered into between financial intermediaries. Upon Lehman's bankruptcy, the

address systemic risks that have been revealed by the financial crisis and that reform should encompass OTC derivatives.

Proposals

JPMC believes it is imperative that the root causes of the financial crisis be addressed and that regulatory reform address systemic risk while preserving the benefits of OTC derivatives for end-users. To that end, we propose the following:

- **Financial regulation should be considered on the basis of function not form**. That is, the appropriate regulatory framework should be determined on the basis of what an entity does rather than what legal entity form it takes.

- **A systemic risk regulator should oversee all systemically significant financial institutions and activities.** We believe it is necessary to establish a systemic risk regulator charged with the responsibility to oversee all systemically significant financial institutions and that this regulator should have the capability to impose capital requirements on these institutions, to oversee their transactions with each other and with their customers, and to impose conditions on those transactions, such as collateral requirements.

- **All standardized OTC derivatives transactions between systemically significant financial institutions or professional intermediaries should be cleared through a regulated clearinghouse.** The standardization requirement is necessary because, as discussed above, only transactions with a degree of standardization are capable of being risk-managed by the clearinghouse and thus be eligible for clearing.

- **Enhanced reporting requirements should apply to all OTC derivatives transactions.** For cleared transactions, the clearinghouse would have data on aggregate trading volumes and positions as well as specific counterparty information. Non-cleared transactions should be reported to a trade repository on a frequent basis, and the repository should publish aggregate market data. The systemic risk regulator as well as market regulators such as the CFTC or SEC should have access to the trade-specific data, and regulators should also have the ability to request more detailed information as required.

Industry Actions

In addition to these proposals for federal legislative action, we believe that financial intermediaries can and should act in concert with regulators to begin to provide a more effective framework for the clearing of OTC derivatives products. Clearing of clearing-eligible

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clearinghouse auctioned the portfolio, pursuant to its rules, and eliminated the market risk without having to tap its guaranty fund. In addition, Lehman's bankruptcy triggered settlement of credit default swaps that referenced Lehman. It is estimated that there was up to $400 billion of such transactions outstanding, in gross notional terms, but at settlement, after netting all positions, the total payments owed were between $6 and $8 billion dollars. The calculation and payment process occurred in an orderly manner with no reported problems.

transactions provides additional stability to the American financial system. By way of example, in the interest rate swap market, we clear 70% of new transactions. A significant portion of credit default swaps (CDS) have become standardized over time, and we have worked since 2005 with other financial institutions and the Federal Reserve to establish a central counterparty (CCP) to clear standardized CDS. The ICE Trust clearinghouse launched on March 9th and has begun clearing CDS. We anticipate that a significant majority of dealer-to dealer CDS trading volume will ultimately be cleared as products are migrated to the clearinghouse. In the commodity derivatives market, we clear a significant amount of our inter-dealer OTC derivatives as well.

CDS Clearing

As the ICE Trust clears more clearing eligible CDS contracts, we anticipate that in the near future the large majority of dealer to dealer clearing eligible CDS contracts will be cleared as a matter of routine. Clearing is a highly transparent process, and anyone with access to the internet can view data free of charge. The data relates to daily volume traded, as well as the price used by the clearinghouse for calculating how much collateral the clearinghouse will require from each dealer. The links to the websites showing that data:

https://www.theice.com/marketdata/reportcenter/reports.htm?reportId=98
http://www.markit.com/information/products/cds/cds-page.html

Interest Rates Clearing

Currently this market clears using the London-based LCH SwapClear service. For outstanding trades as at the close of 2008, SwapClear clears approximately $160 trillion in notional, which equates to roughly 50% of inter-dealer swap trades globally.

Commodities Clearing

During the three month period ending in February 2009, OTC commodity derivatives dealers cleared on average approximately 40% of their OTC energy derivatives transactions and 35% of other commodity derivatives (excluding metals and agricultural products). We anticipate these percentages will increase over time.

FX Clearing

Clearing has not been an industry practice because FX/currency OTC contracts tend to have shorter maturities, which generally decreases counterparty risk, and counterparty risk is the primary driver for the development of clearinghouses. However, discussions on this have begun among dealers and regulators.

JPMC is committed to working with Congress, regulators and other industry participants to ensure that an appropriate regulatory framework for derivatives is implemented. I appreciate the opportunity to testify and look forward to your questions.

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Larry E. Thompson
General Counsel
The Depository Trust & Clearing Corporation

Testimony before the Subcommittee on
Capital Markets, Insurance, and Government Sponsored Enterprises

Tuesday, June 9, 2009 Hearing on
"Effective Regulation of the Over-the-Counter Derivatives Markets"

Chairman Kanjorski, Ranking Member Garrett and Members of the Subcommittee, my name is Larry E. Thompson, General Counsel for The Depository Trust & Clearing Corporation (DTCC) and I'd like to thank you and the members of the Subcommittee for the opportunity to share with you today our views on the over-the-counter (OTC) derivatives market. DTCC brings a unique perspective to your discussion, as the primary infrastructure organization serving the capital markets in the U.S. and a 36 year history of bringing safety, soundness, risk mitigation and transparency to our financial markets.

As an example, following the Lehman bankruptcy last year, DTCC played a significant role in unwinding over $500 billion in open trading positions from trades in equities, mortgage-backed and U.S. government securities, without any loss to the industry—and avoiding additional burden on taxpayers.

Today, I'd like to share some insights gained from the financial crisis of the past year and to emphasize one fundamental policy point, to which I will return later in my testimony. Fragmentation of data in the financial industry can impede the ability of regulators to protect investors and the integrity of the financial services system as a whole. These core policy goals are advanced when information on trades are held on a centralized basis. DTCC has long done this for all domestic trades of equity and other securities. In recent years, it has been asked to do this by most market participants for credit default swaps (CDS), one type of OTC derivative contract. As a result, DTCC has become a primary resource for regulators needing information on such contracts at times of crisis.

We believe maintaining a single trade repository for OTC derivatives contracts is an essential element of safety and soundness for two primary reasons. First, it helps assist regulators in assessing systemic risks, thereby protecting consumer and financial markets. Second, as a practical matter, it provides the ability from a central vantage point to identify the obligations of trading parties, which can speed the resolution of these positions in the event of a firm failure, as we found last year in the case of Lehman Brothers. Today, we are working closely with market participants to meet commitments that were recently made to the Federal Reserve and other global regulators to register all remaining unregistered CDS trades in our Trade Information Warehouse by July 17th -- a deadline we fully expect to meet.

However, there is no absolute assurance a single trade repository for OTC derivatives will be retained unless that public policy objective is expressed in law. While DTCC supports the role of central counterparties (CCPs) in OTC derivative trading to provide trade guarantees, the CCPs do not obviate the need to retain the full details on the underlying trading positions in a central trade repository to support regulatory oversight and transparency in this market.

Now, many of you may not have heard of DTCC before. That's purposeful. We have traditionally kept a low profile, given the critical nature of the role we play in U.S. financial markets. Last year DTCC settled $1.88 quadrillion in securities transactions across multiple asset classes. We essentially turnover the equivalent of the U.S. GDP every three days—and we provide the post-trade processing efficiency and low cost that attracts investment capital that helps fuel the U.S. economy.

DTCC, through its subsidiaries, provides clearing, settlement and information services for virtually all equities, corporate and municipal bonds, U.S. government securities, mortgage-backed securities, commercial paper and other money market instruments, and over-the-counter derivatives. In addition, DTCC has supported the enormous growth and consumer choice in the purchase of mutual funds and annuity transactions, by linking funds and carriers with the firms who market these products. Lastly, DTCC's depository is the largest securities depository in the world, providing custody and asset servicing for 3.5 million securities issues from the United States and 110 other countries and territories valued at $30 trillion.

Equally important, we are a market-neutral, member-owned and governed organization. We are regulated by the SEC, the Federal Reserve Board of Governors and the New York State Banking Department for many of our activities.

DTCC's Roots: Founded at a Time of Crisis

DTCC, throughout its history, has played a central role in helping our financial markets during a period of crisis. Our subsidiaries, The Depository Trust Company (DTC) and National Securities Clearing Corporation (NSCC), were created in the 1970s to help address the famous paperwork crisis on Wall Street, when thousands of messengers carried bags of stock certificates and checks to settle trades and recordkeeping strains

forced the New York Stock Exchange to shut down on Wednesdays to process the backlog of trade records. During this period the NYSE traded an average of 15 million shares daily. Today, across the 50+ equity markets DTCC supports, we can have 19.3 billion shares traded in a single day. In the mid-1980s, we implemented similar protections for the U.S. Treasury markets, providing automation and processing safeguards to protect the certainty and attractiveness of trading in U.S. Government securities. In the late 1980s, we removed the barriers preventing the growth in sales of mutual funds—and providing U.S. investors with unprecedented choice and low cost.

At its core, DTCC is a huge data processing business, involving the safe transfer of securities ownership and settlement of trillions of dollars in trade obligations, under tight deadlines every day. At the same time, DTCC's primary mission is to protect and mitigate risk for its members and to safeguard the integrity of the U.S. financial system. Mitigating risk means we not only have the capacity to handle unpredictable spikes in trading volume, but that we have the business continuity and resiliency to withstand both the "unthinkable" –and even the "unknowable."

Not to digress, but to give one example. At the time of one of our nation's darkest tragedies, immediately following the September 11 attacks, DTCC was 10 blocks from the World Trade Center. While the stock exchanges did not open, DTCC still had a job to do and never missed a beat. Despite the chaos that Tuesday morning, nearly 400 employees remained at DTCC 's headquarters, even though lower Manhattan was sealed off by the government, to complete that day's settlement of more than $280 billion in outstanding trades from the prior Friday and Monday. And throughout that week, working from backup facilities, DTCC had completed settlement of nearly $1.8 trillion in trades that were in the "pipeline", which was a critical step to allowing our capital markets to open the following Monday.

The crisis following the Lehman bankruptcy was equally challenging. However, because of our ability to manage risk and see exposure from a central vantage point across asset classes, DTCC was instrumental in helping ensure that market risk – and systemic risk – was controlled. Working with market participants and regulators, DTCC successfully closed out over a half trillion dollars in exposure from Lehman's trading in equities, mortgage-backed and U.S. government securities. Most would agree this was the largest and most complex wind-down in DTCC's history, but with nearly 36 years of experience in managing risk events, we were able to complete this wind down in a matter of a weeks with no impact to DTCC's retained earnings, loss to our market participants' clearing fund deposits—or additional exposure to taxpayers.

Bringing Automation and Efficiency to OTC Derivatives

As I've testified, DTCC's help has always been sought by market participants and regulators, in response to crisis, and this holds true for the OTC derivatives market as well. By 2003, the market for OTC credit derivatives had taken off, but only 15% of the trades were being captured electronically. The trading process was manual and error-prone. Both the global dealers and regulators felt the market for these instruments faced growing risks, if a solution was not found. DTCC was asked to develop and we delivered

an automated matching and confirmation system, called Deriv/SERV, within nine months. Today, over 95% of all OTC credit derivatives are captured in this automated environment and matched by Deriv/SERV, an average of 41,000 transactions per day.

With major dealers making ambitious commitments about improving their operational practices to global regulators, DTCC's collaboration with the industry is continuing to bring a wider universe of the OTC derivatives market on to its electronic matching and confirmation platform, which is helping to significantly reduce the level of unconfirmed trades that remains in the market. These services, I might add, are provided at cost to global dealers or sell-side firms and at no charge to buy-side customers.

However, after entering the OTC derivatives space, it was clear to DTCC and market participants that the downstream process for credit default swaps was another major area of concern. Once credit default swap trades were completed, these contracts could be resold or reassigned multiple times over their five-year lifecycle, but the process for recordkeeping and reconciling these transactions was largely manual.

DTCC launched the Trade Information Warehouse in November 2006, to provide an automated central repository to house and service all CDS contracts. During 2007, working with the industry, DTCC updated the Warehouse with information on over 2.2 million outstanding CDS contracts, and our Deriv/SERV matching engine is now supplying the Warehouse with more than 41,000 transactions daily. Today, our Trade Information Warehouse is the only comprehensive data base or repository of OTC derivative activity in the world.

I'd submit to you Mr. Chairman, and Members of the Subcommittee, that had DTCC not had the foresight to create this Trade Information Warehouse and load the Warehouse with all these records of CDS trades in 2007, we might still be sitting here today in 2009 trying to sort out the total exposure of trading obligations following the Lehman bankruptcy, i.e., who traded with whom, at what point in time and at what price?

However, our trade repository does more than simply maintain comprehensive records on these CDS transactions. The Warehouse also handles the calculation, netting, and central settlement of payment obligations between counterparties, and it has automated the processing of "credit events" – situations where the protection against default provided by a credit default swap is activated.

Managing Multiple Credit Events from a Central Vantage Point

Since last year, DTCC has now seamlessly processed or is processing, through the Warehouse, more than 40 credit events, including the Lehman Brothers and Washington Mutual bankruptcies as well as the conservatorships for Freddie Mac and Fannie Mae. No one could have foreseen the storm of credit events that shook the market last year and this year, but thanks to the central infrastructure we built for the CDS market and our ability to see and manage these credit events from a central vantage point, ensured a more seamless and safe final disposition of hundreds of billions of dollars in CDS payouts triggered by these bankruptcies and government takeovers.

If I may cite the March 9, 2009 report, prepared by the Senior Supervisors Group, which comprises the senior financial regulatory supervisors from seven major countries, including Germany, France, UK, Swiss, Japan and the U.S.:

"DTCC's credit event processing service enabled firms to manage the large number of affected CDS trades during the recent events. All surveyed participants indicated that without the DTCC service and the [Trade Information Warehouse], the process would have been manual and burdensome and they could not have completed timely processing."

Having all CDS trade information in one centralized infrastructure was highlighted in the report as making it easier for market participants to identify affected trades and facilitate handling of various lifecycle events, such as settlement and credit event processing. In the crux of the crisis, the process of having to glean and coordinate the necessary information from more than one repository would have been a frightening prospect.

Enhancing Transparency

As the only source of key data on the CDS market, DTCC recognizes and supports the public policy goals articulated in U.S. Treasury Secretary Geithner's May 13 Letter to the House and Senate Leadership on the need to promote transparency in the OTC markets.

DTCC has been working closely with market participants and regulators to achieve that vision. Since November 2008, DTCC has been publishing weekly on its website, key statistics and data from the Warehouse on the size and turnover of the CDS market.

Increased public disclosure on CDS data has been instrumental in bringing better clarity to the market's true risk exposures to credit events, which first surfaced following the Lehman Brothers bankruptcy filing in September 2008. At the time of the Lehman crisis, rampant speculation valued the market's CDS risk exposure from the bankruptcy to be as high at $400 billion, causing unease and a sense of panic in some quarters. Since we held the vast portion of information on CDS positions in our Warehouse, we took the unprecedented step to issue a press release on a Saturday in mid-October to clarify that based on our Warehouse records, the exposure to Lehman was closer to a net notional value of about $6 billion. Ultimately, at the close of this credit event, the actual value was $5.2 billion, changed hands between counterparties.

Last week, we issued a similar press release following the GM bankruptcy, reportedly to be the largest for an industrial company in U.S. history, surpassed only in dollar value by the Lehman bankruptcy CDS numbers.

This past Monday, June 8, in the New York Time's Breaking Views Column, the Warehouse was praised for bringing greater transparency on CDS exposure following the GM bankruptcy:

"The vague guesses of four years ago have been replaced by hard data. The Depository Trust & Clearing Corporation, which now collects trading information, was able to say

last week that the $35.3 billion in outstanding swaps trades on GM netted down to possible payments between market participants of an unremarkable $2.2 billion."

Today, when credit events such as GM occur, having this data more readily accessible to the public through our weekly postings has helped demystify CDS instruments somewhat and help avoid the market anxiety that was so pervasive during the Lehman crisis.

Working with Global Regulators

The marketplace for OTC derivatives is truly global in nature, but we would express caution about the proliferation of trade repositories. When we originally designed the Warehouse with market participants, we spent a long time making sure there would be no duplication of data and that transfer of information happens when it is supposed to. None of those control mechanisms would work very well in a context where there is more than one Warehouse. Additionally, every regulator in the world, if it was seeking to ensure the soundness of firms under its purview, would need access to *all* global central repositories in order to effectively supervise the risks firms were taking. The risks associated with the market for OTC derivatives will not be easily managed, if you can not see the positions globally.

To this end, we regularly provide information to regulators worldwide in support of their own regulatory missions, including the European Central Bank and the Financial Services Authority in the U.K.

Here at home, we also recently filed an application with both the Federal Reserve and the NY State Banking Department to create a new subsidiary to operate the Warehouse, as a regulated member of the Federal Reserve System, aligning ourselves with the direction that our regulators have set and formalizing the interaction that we are already having with regulators in the U.S. and abroad.

Central Counterparty (CCPs) Services and the Trade Warehouse

So with all this good news about our central repository, why are we here testifying before Congress? Well, we are concerned that regulatory calls to require the use of central counterparty (CCP) solutions for standardized derivatives transactions could mislead some to think this, in itself, will provide a complete cure for the problem. As an organization that provides CCP services in other markets, like equities and government securities, we support and recognize the value a CCP can bring to the derivatives markets. In fact, we've stated publicly that our Trade Warehouse will support all efforts to create CCP services planned in the U.S. and overseas, on a non-discriminatory basis.

DTCC is a not-for-profit cooperative that is market neutral. Just as we support over 50 trading venues in equities, including the NYSE and Nasdaq, as a central infrastructure, we are committed to working with all existing and proposed central counterparty solution providers in the OTC derivatives market to achieve this goal. From our perspective, linking to the Warehouse's central infrastructure will not only accelerate implementation of CCP processing for OTC derivatives, it will also allow these service providers to focus

their development more clearly on margining and risk management without any extraneous operational concerns.

At the same time, we are concerned that some in the OTC derivatives market may assume once a trade guarantee is provided through a CCP, there may be less need for a central registry to track the underlying position data. We reject this view, based on our long experience managing the risk flowing from the failure of a single member firm. At the critical juncture of a firm failure, knowing the underlying position data of multiple transactions in a timely manner will be significant in providing transparency to regulators—and in protecting confidence in the market itself. We believe the role of having a central repository should be reinforced as a matter of public policy.

And so, as I wrap up my remarks, I would like to reiterate the importance DTCC places on the progress made to-date with market participants and regulators to foster a sound, safe and transparent OTC derivatives market. Our Trade Warehouse or central registry connects and services over 1,400 global dealers, asset managers, and other market participants, providing a central operational infrastructure covering approximately 95% of all current credit derivatives traded worldwide. This trade repository was designed to be, and we recommend that it be mandated to extend and include other OTC derivative asset classes.

Lastly, recognizing the complex nature of these instruments, DTCC does want to offer to work with the Subcommittee, to foster continuing dialogue and collaboration. DTCC is ready to work with Members of Congress, the Administration, global regulators and market participants to help accomplish our shared vision of greater transparency, risk mitigation and resiliency in this dynamic market. We appreciate your time today and are happy to respond to your questions.

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JPMorganChase

Don Thompson
Managing Director and
Associate General Counsel
Legal Department

July 1, 2009

U.S. House of Representatives
Committee on Financial Services
2129 Rayburn House Office Building
Washington, DC 20515
Attention: Terrie Allison
Fax (202) 225-4254

Re: June 9th "Effective Regulation of the OTC Derivatives Market"

Dear Ms. Allison:

I am in receipt of your June 24th letter enclosing my transcript and an additional question. I do not wish to make any edits to my remarks. This is my response to the additional question:

Question from Representative John Adler

1) U.S. crude oil prices hit $70 a barrel last week for the first time since November 2008, even as U.S. crude stocks reached their highest levels since 1990 and with U.S. demand at a 10 year low. Still prices are up over 70 percent since the beginning of the year. What do you recommend in terms of effective regulation within the OTC Derivatives market to address this apparent volatility?

JPMorgan's response

JPMorgan strongly supports efforts to provide the Commodity Futures Trading Commission (CFTC) with all necessary market surveillance tools to prevent price manipulation in the oil futures market. To that end, JPMorgan believes that additional, appropriately tailored reporting requirements with respect to over-the-counter derivatives (OTC) transactions could have a beneficial impact on the oil futures market and on commodity markets and market participants generally. For example, the CFTC could obtain aggregate position information with respect to the OTC positions of a particular end-user, through the implementation of a reporting requirement for OTC transactions analogous to the Large Trader Reporting (LTR) system that the CFTC currently has in place with respect to participation in the futures markets. Under this approach, each OTC dealer would be required to report to the CFTC once an end-user's open OTC position reached a certain level with such OTC dealer, in terms of futures equivalents. This requirement would apply regardless of the commercial or non-commercial status

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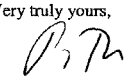
of the counterparties. This reporting system would allow the CFTC to track the open positions of OTC counterparties effectively and efficiently and to evaluate any potential effect of such positions on the futures markets. This system would also provide the CFTC with the information necessary in order to enable it to take any appropriate action.

Please contact me if you have any questions.

Very truly yours,



Don Thompson

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