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THE ROLE OF FINANCIAL DERIVATIVES IN THE CURRENT FINANCIAL CRISIS

HEARING

BEFORE THE

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CONTENTS

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Tuesday, October 14, 2008

U.S. SENATE,
COMMITTEE ON AGRICULTURE,
NUTRITION, AND FORESTRY,
Washington, DC

The committee met, pursuant to notice, at 11:03 a.m., in room 106, Dirksen Senate Office Building, Hon. Tom Harkin, Chairman of the committee, presiding.

Present or submitting a statement: Senators Harkin, Lincoln, Lugar, and Crapo.

STATEMENT OF HON. TOM HARKIN, U.S. SENATOR FROM THE STATE OF IOWA, CHAIRMAN, COMMITTEE ON AGRICULTURE, NUTRITION AND FORESTRY

Chairman HARKIN. The Senate Committee on Agriculture, Nutrition, and Forestry will come to order.

We are holding this hearing in the midst of the deepest and most far-reaching financial crisis in nearly 80 years. Major U.S. financial institutions which were thought to be rock-solid are now in bankruptcy, have been sold for pennies on the dollar, or are on life-support from the U.S. taxpayers. Money and capital are not flowing. Families and businesses cannot get the credit they need. Our already weak economy has sunk further into recession. U.S. economic growth is flat to negative. Jobs are being lost, and unemployment is climbing.

Though stock prices rose yesterday, at the end of last week, the Dow Jones average had fallen 40 percent in the preceding year. Stocks in the Wilshire 5000 stock index lost $8.4 trillion in value in the same period last year. I might also mention that farm commodity prices are also falling dramatically.

We all understand the urgent and critical need to revive the financial markets and return them to sound functioning. I emphasize that again, to sound functioning. I am not interested in returning the financial markets to the old heyday of CDSs and CMOs and CDOs, credit default swaps, collateralized mortgage obligations and collateralized debt obligations, and all the things that are swirling around out there. I mean return it to sound functioning.

We in the Congress went along with a modified version of the administration's rescue plan because the stakes were so high. We hope that some of those outlays, which may exceed $700 billion, will come back to the Treasury, but there is no assurance of that. How will it be paid for? By borrowing, by adding to the national debt. That means our children and grandchildren will be paying for it. What is more, saving the financial sector makes it all that much harder to pay for our nation's other needs, to fund the genuine investments in the future, such as education, a better health care system, medical research, renewable energy, roads, bridges, sewer and water systems, the infrastructure of our capitalist system.

Well, if we are going to borrow against the future to save the financial sector, then we had better make sure the money is well spent. If Wall Street is an emergency room patient, we cannot just give a blood transfusion without stanching the bleeding, without attacking what really ails the patient. We have to get to the root of how our nation's financial system has fallen into this crisis and fix the problems in order to restore and rebuild fundamental soundness, confidence and integrity to those markets and our overall economy.

We have all heard much about the impact of non-performing real estate loans. Real estate mortgages were packaged, then securities backed by those mortgages were sold to investors. But far too many of the securities sold to the investors were risky, certainly riskier than the ratings indicated, because the underlying mortgages were risky. I keep hearing the word "toxic" being used now.

Now, we are learning about another layer of risk that was added on top of the risk from junk securities. We now know this financial crisis and the collapse of key financial institutions owe a great deal to the extensive commerce in credit default swaps and similar contracts, like collateralized debt obligations, collateralized mortgage obligations.

I wanted to do a little search here to find out, when did all these things start? When did all these things really come into being? Have they been around forever? No. Most of these began in the 1980's.

Collateralized mortgage obligations, banks basically started in 1983 by Fannie Mae. They sort of went along at a low level for a while and then in the late 1980's and 1990's, they boomed.

Collateralized debt obligations, invented by Drexel Burnham in 1987. They didn't do much for a while. Then they mushroomed in the 1990's and exploded again in the 2000's.

Credit default swaps weren't around before the early 1990's. Then they sort of went along at a low level, and then again ballooned in the 2000's.

So these are not things that have been around in our financial system forever. These are instruments dreamed up by geniuses.

Credit default swap contracts were written and sold to pay out in case of a loss on a variety of securities and financial obligations, including, as I said, those backed by unsound mortgages. In other words, credit default swaps were issued and used in ways that made highly risky investments seem sound. Now, as the losses mount on the securities and other obligations, those responsible under the credit default swaps have to pay up in amounts that greatly exceed anything the issuers and sellers of the swaps expected and anything the financial sector could withstand.

The total outstanding notional—and we will hear more about that in the hearing—or face value of credit default swaps exploded to a high of some $62 trillion worldwide last year according to the

International Swaps and Derivatives Association. That roughly equals the gross domestic product of the entire world for 2008. And the total face value of all types of financial swaps was some $587 trillion worldwide at the end of last year.

I have a chart here that shows relatively what we are talking about, $62.2 trillion in the notional value of credit default swaps. U.S. household real estate value, $19.9 trillion. Again, people say, well, notional doesn't mean that much. I mean, everything would have to collapse before you would ever reach that. Well, the same would be true in U.S. household real estate values, too, but again, it gives you a relative idea of what is going on there.

What has happened is that the market in swaps is vastly greater than the value of any underlying assets. Now, one of the reasons for that is because the investor can enter the swaps market without owning a bond or any other interest at risk. It is a betting game, folks. It is a betting game.

The huge multiplication of leveraging, with the help of credit default swaps, has now come home to roost with a terrible vengeance. That is why Warren Buffett called derivatives, and I quote, "financial weapons of mass destruction."

Credit default swap contracts function somewhat akin to insurance, and we are going to talk about that with our first witness. But they are purposely not written like insurance. Why? To avoid the safeguards of insurance regulation.

Swaps contracts also function much like futures contracts because the payout depends on something happening later on in the future, or not happening. But they are not regulated as futures contracts because a statutory exclusion passed by the Congress, signed by the President in the year 2000 excluded it from the authority of the Commodity Futures Trading Commission, which comes under the jurisdiction of this committee.

So these swaps need not be traded on an open, transparent exchange. As a result, it is literally impossible to know whether swaps are being traded at fair value or whether institutions trading them are being over-leveraged or dangerously over-extended.

Now, we have been told in the past that traders and institutions involved in financial derivatives are highly capitalized and, quote, "sophisticated." They can look after themselves. Well, the credit default swaps and derivatives have been put together, they say, by mathematics and physics geniuses, but carried out without an understanding of human behavior and market behavior.

What they thought were tools to manage and limit risk have actually turned out to magnify and amplify risk. I want to repeat that. What they thought were tools to manage and limit risk have turned out to magnify and amplify risk.

Yes, these derivatives may be devised and traded by sophisticated parties, but the problem is that their miscalculations and blunders have put our national economy on the precipice. We cannot simply condone anything and everything done in the financial markets in pursuit of huge profits. What is good for Wall Street banks and money managers is not necessarily what is good for our sound economy and our society. We have seen that time and time again.

We also must question the soundness of our economy's ever greater dependence upon the financial sector. In 1948, 56 percent of the profits of U.S. companies were in manufacturing while 8.3 percent were in the financial sector. But in 2007, only 19 percent of profits were from manufacturing, 26 percent from the financial sector, and you can see that on the chart over there, if you can hold that up. You can just see where manufacturing keeps going down, financial profits keep going up.

We have moved from sound, regulated capitalism to what has come to be known as market fundamentalism—market fundamentalism, the idea that the market knows best and must be allowed to freely make and correct its errors, forgetting about the manipulators and forgetting about human greed.

Recent events have once again shown that the stakes are too high for our entire economy to follow this sort of rigid ideology. Regulations must be reasonable and allow financial markets to function effectively and efficiently to move capital and credit where they are needed in our economy. Yet we must have regulations that will protect the rest of our economy from the excesses—from the excesses in the financial markets, and to protect the rest of our economy and Americans from the collateral damage when the financial sector makes a blunder.

Again, I want to get back to the issues from credit default swap. You know, I have been out in my State a lot the last couple of weeks, going around, and as I have gone to meeting after meeting, I offered this. I said, I have got 100 bucks in my pocket that I will give to any person who can explain a credit default swap in language that the average American can understand. You hear it talked about, but no one really knows what it is—billions of dollars, maybe even trillions, we don't know.

So I had a chart drawn up to illustrate what a credit default swap was, tried to reduce it down to maybe something that the average person might hopefully understand. Hold that up so people can see it. So what you have got here is you have got mortgage lenders that loan money for people buying homes. We have got that. Now, in the past, these mortgage lenders tended to hang on to those mortgages. They were your savings and loans. They were your banks, other institutions like that basically held on to the mortgages.

But then, as I said, beginning in the 1980's, they decided that they would start bundling these, collateralizing them, passing them on. And so these mortgage lenders then, would bundle the mortgages, they would collateralize it and that is what is called the reference obligation, or a bond, or whatever it might be.

And then you have a protection buyer up there. Now, two things are important here. They can actually buy that reference obligation and hold it, or they go to Wall Street and what they do, Wall Street has devised this scheme whereby they say, okay, if these people down below don't pay, we will pay you. We will pay you. Now, that is like insurance to me. We will pay you if there is a default.

Well, you might say, what is wrong with that? You buy insurance to pay off. Well, the problem is, it is not regulated. Therefore, we don't know whether the protection sellers have enough money to pay off if that credit reference obligation goes under. If these people at the bottom don't pay, does Wall Street have enough money to pay the protection buyer? We don't know that because they are not regulated like insurance. We don't mandate that they show us that they have enough money to back it up.

Now, the other thing that can happen is this protection buyer doesn't have to own the reference obligation. They just bet that either it will be OK or it will not be okay, and then Wall Street comes in and sells them kind of an insurance policy made on that bet. Now, this is something that people don't understand. They don't even have to own it. They just bet on it. This is casino capitalism, that is what it is. It is casino capitalism.

So hopefully, that kind of brings it home. It is hard to understand, and perhaps that is why it has gotten us in so much trouble.

Well, as I said, we have got to have regulations to protect our economy from these excesses. It is like Franklin Roosevelt said when he first came to office. He said, we always knew that greed was bad morals. We now know it is bad economics. It was true then and it is true today.

So in my mind, there is no question that we must adopt a stronger system of regulation and oversight for these swaps and derivatives and everything else that is out there. It is hard for me to see how we are going to put our financial sector and economy back on a sound footing unless we impose regulatory oversight.

So I start off by asking two questions. One, shouldn't we just outlaw all of these fancy financial products? Just say, you can't do it. They are too injurious to our system.

The second question I have is, if we can't outlaw them, shouldn't these be traded on an exchange where it is open and transparent, where you know how many are out there, what their real values are, and where they have to make their books balance every day? And shouldn't we then make sure that if it is an insurance kind of policy, that it is regulated by the insurance commissioners of our States so we know that the sellers have enough money to back up their obligations?

So I ask those two questions and I intend to pursue them with our witnesses, and I thank them all for being here.

With that, I would yield to our distinguished former Chairman of this committee, Senator Lugar.

STATEMENT OF HON. RICHARD G. LUGAR, U.S. SENATOR FROM THE STATE OF INDIANA

Senator LUGAR. Well, thank you very much, Mr. Chairman, for calling this timely hearing and likewise for your very expanded but important opening statement.

I have a shorter one and the author is the acting Chairman of the CFTC, Walt Lukken, who wrote about a part of this problem in the Wall Street Journal last Friday. I want to quote relevant passages from Chairman Lukken's paper.

He said the current financial crisis is requiring policymakers to rethink the existing approach to market regulation and oversight. Many observers have singled out the over-the-counter derivatives, including credit default swaps, as needing greater scrutiny and transparency. If we are to avoid repeating the mistakes of the past, we must strive to increase the transparency of these transactions and find ways to mitigate the systemic risk created by the firms that offer and hold these off-exchange instruments.

While wholesale regulatory reform may require careful consideration, there is one immediate and proven solution at hand: Centralize clearing. Clearinghouses have been around almost as long as trading itself as a means of mitigating the risks associated with exchange-traded financial products. Whether the security is options or futures, centralized clearinghouses ensure that every buyer has a guaranteed seller and every seller has a guaranteed buyer, thus minimizing the risk that one counterparty's default will cause a systemic ripple through the markets. The clearinghouse is able to take on this role because it is backed by the collective funds of the clearing members.

This clearing guaranty goes to the root of the problems we are confronting today, the constriction of credit due to fear of default. Indeed, for futures contracts, the standardized on-exchange cousin of OTC derivatives, clearing has worked extraordinarily well in managing credit risk. The first independent U.S. futures clearinghouse was established in 1925 and this model helped launch others. Today, the world's largest derivatives clearing facility is located in the United States, processing and guaranteeing more than two billion trades per year.

For regulated futures exchanges, the clearing and settlement mechanism serves to lessen the likelihood that large losses by a trader will cause a contagion event. At least twice daily, futures clearinghouses collect payment from traders with losing positions and credit traders with profitable positions. This twice-daily mark to market prevents the buildup of significant losses and effectively wipes clean the credit risk inherent in the system. Importantly, no U.S. futures clearinghouse has ever defaulted on its guaranty.

Just as significant, the clearing process provides transparency to regulators. When transactions are cleared, government and exchange regulators receive trader and pricing information, which helps them to police for manipulation and fraud and to uphold the integrity of the market.

Now, can clearing work for OTC derivatives? The answer is yes. In fact, it already is working. After Enron's demise in 2001, the OTC energy derivatives market locked up because many energy companies lacked the requisite financial standing to back their off-exchange trades. In response, U.S. futures exchanges sought and received approval from the Commodity Futures Trading Commission, the CFTC, in 2002 to clear OTC energy products for the first time. Today, a significant number of OTC energy derivatives are cleared through regulated clearinghouses, which has reduced systemic risk and allowed regulators a greater window into this marketplace.

In conjunction with the President's Working Group on Financial Markets, the CFTC will continue to seek ways to provide clearing solutions for OTC derivatives. Last month, in a report to Congress, CFTC recommended the further use of clearing for OTC derivatives would statutorily fall outside CFTC jurisdiction but may opt to come on a regulated clearinghouse. There are several private sector clearing initiatives currently being considered by Federal regulators. It is imperative that policymakers work cooperatively and expeditiously to conduct their due diligence and allow appropriate programs to promptly begin operation.

While needed reform of the financial regulatory structure will likely have to wait for the next administration and Congress, centralized clearing is one immediate step that can tangibly reduce risk in the markets and benefit the United States economy.

I think that sums up at least a constructive position in terms of the immediacy and as we look at the regulatory situation down the trail. But this hearing is a good preparation for both and I thank you, Mr. Chairman.

Chairman HARKIN. Thank you, Senator Lugar.

Senator Crapo.

STATEMENT OF HON. MIKE CRAPO, U.S. SENATOR FROM THE STATE OF IDAHO

Senator CRAPO. Thank you very much, Mr. Chairman, and I want to thank you personally for holding this hearing. I particularly appreciate the title of it, "The Role of Financial Derivatives in the Current Financial Crisis," an incredibly important question.

Derivatives have come to play an extremely important role in our economy and now we are—the term "derivative" is almost becoming a household word as people are learning about it and facing the ripple effects of what we have seen in our economy in the last few months, just as much as credit default swap and the other types of financial instruments that we are all unfortunately taking a crash course on learning about.

As you know and all of us here know, we have been dealing with what is the proper way to manage and regulate derivatives for a number of years in this committee and we will continue to do so.

One of the main reasons that credit derivatives and the market—and the over-the-counter markets have grown so rapidly is that market participants have seen substantial benefit to customizing contract terms to their individual risk management needs. As the Chairman has so well pointed out, we have now learned painfully that there is not only a risk between highly sophisticated buyers and sellers and those who deal in these transactions at a very highly sophisticated level, but there is a systemic risk if we do not understand and correctly manage it.

At the same time, recent events in the credit markets have highlighted the need for greater attention to risk management practices and the counterparty risks in particular, and I appreciate Senator Lugar's comments about the recommendations of Walt Lukken. There are a lot of very solid thinkers out there who understand the market well and who are evaluating what is it that has caused the problem we have today and what role do derivatives play in that.

That is why earlier this year, the President's Working Group on Financial Markets called for market participants to take collective action to strengthen the infrastructure for clearing and setting credit default swaps and other over-the-counter derivatives. Just last Friday, the Federal Reserve Bank of New York hosted its second meeting to discuss industry progress toward creation of a central clearing system for credit default swaps, and I understand several of our witnesses today were at that meeting and have been participating in that process, and I will be interested in knowing what they feel about those discussions.

President Bush announced this morning that the U.S. Government is going to take financial stakes in our nation's top financial institutions as a part of a new plan to restore confidence in the U.S. banking system, and I am interested in how the topic we are discussing today is impacted by that decision as well as the troubled asset recovery plan that Congress and the Secretary of Treasury worked on in the past few weeks.

There are all kinds of issues that we need to understand clearly as we move forward, but as both the Chairman and as Senator Lugar have indicated, there are really sort of two aspects of this. There is the short-term approach, which in my mind is being handled, at least at this point, in terms of the efforts to evaluate some type of a central clearing system or whether we need to deal with some other type of new regulatory approach.

But there is also the wholesale regulatory reform issue, not just with regard to the CFTC but with regard to the entire system that we have in this country in terms of the regulatory approach to our financial markets. As I have calculated it, depending on what part of the financial industry one might be participating in, there are up to seven different Federal regulators and 50 different State regulators for different types of financial activity and there has been a strong suggestion made by our Secretary of Treasury in the blueprint that he put forward that we look at streamlining and making more efficient and more focused that regulatory system so that we accomplish those two objectives that our Chairman mentioned, the one being the objective of making sure that whatever system we have in this country, it allows capital to move freely and efficiently and that we allow free markets to operate, but that at the same time, we protect against anti-competitive manipulation of markets or practices that increase systemic risk in a way that is unfair to the economy and to the American taxpayer.

It is my hope that today, as we proceed in this hearing, that we can not only understand what the role of derivatives is in our economy and what role it has played in the current economic circumstances that we face, but that we can also discuss some of the ways that we can approach these general objectives in broad regulatory reform, namely, once again, making sure that we allow capital to move freely and efficiently in a market system, in a free market system, but also making sure that we protect against inappropriate manipulation of markets, and beyond the manipulation issue, the question of simply behavior that will increase the systemic risk to our economy and to our people that should at least be brought into a much greater focus and into a circumstance in which we have the kind of transparency and control that we need to make sure that our citizens are protected.

So again, thank you, Mr. Chairman, for holding this hearing.

Chairman HARKIN. Thank you very much, Senator Crapo.

Senator Lincoln.

STATEMENT OF HON. BLANCHE L. LINCOLN, U.S. SENAT0R FROM THE STATE OF ARKANSAS

Senator LINCOLN. Thank you, Mr. Chairman, and a special thanks to you, Chairman Harkin, for holding the hearing and bringing this group of experts together to discuss certainly the roles that derivatives have played and that they will play in our economy, but certainly the role that they have played in the most recent and probably worst financial crisis in our nation that we have seen since the 1930's.

While the signs on the stock market were more positive yesterday, we are still confronted with an economy that is in severe trouble. It has got a downward swing. We are seeing American families—I don't know about you gentlemen, but I have been home in Arkansas and American families are paying more than ever at the pump. It is going down, but they still realize that it is going to probably go back up. Food prices have risen. Their wages have not necessarily. Housing prices continue to fall precipitously. Job losses are mounting every day.

We can talk all day about derivatives and the incredible mathematicians that designed a lot of these, but until we really get down to how it affects people in their daily lives and how this economy is affecting people in their daily lives, we won't actually be doing our work.

You know, as a result of the economic crisis on Wall Street, we know that our credit markets have tightened and we see failing banks are being bought out and the stock market is down. It is truly a time of uncertainty, economic uncertainty, and it creates fear in people who are living paycheck to paycheck and who are worried about what and who is going to take care of them in their old age. How are they going to help pay for their aging parents' prescription drugs and still be able to have somewhat of a nest egg or savings to be able to send their kids to college or retire themselves?

And, you know, it is unbelievable because we have been begging—begging—to be a part of the global economy, and now the global economy is here and we are a part of it and we are going to have to figure out a way to behave in it and to behave with others that are there, because the global economy is more complex and intertwined than ever. All you have to do is look at today's discussion and the topic that we have got here today.

I probably look at it from a little bit of a different perspective than some of my colleagues, but when I sent a kid off to school today, we had to try on three pair of blue jeans because he had outgrown them. We have outgrown a lot of the system that we have in place today and we have got to do something quickly about making sure that we are serious of how it is we provide the protection for consumers, more importantly that we keep an open market and that we continue to play in that global marketplace.

And it is not going to be easy coming up with these solutions, and we are pleased that you are here today to share with us the ideas that you may have on what we do. But outside of Wall Street, we look at the regulatory bodies of the CFTC and the SEC and the staff of this committee and others, few people knew about derivatives or credit default swaps. I think the first were started in the mid–1990's, perhaps. Other financial institutions have shaken the foundations of some of our strongest and oldest financial institutions.

And when we talk about clearinghouses, a central clearinghouse is a good idea if we can implement it, if we can make it happen, and if we can still maintain our spot in that global economy. The Chicago Mercantile, I think CME has an ability to clear OTCs or the over-the-counter, at least that is my understanding of it. Again, I am not an expert on these issues. But that is not where people are going to go if the other is an option. So we certainly have to look at that.

It is clear, I guess, in hindsight that these troubled financial institutions and what we have seen did not fully comprehend the risk that was involved, or maybe they did and maybe that was their business. As Chairman Harkin mentioned, greed plays a big role in a lot of what happens and it has been around since the beginning of time. There are also the issues that we have to work through in terms of what people are going to use as a commodity and being able to look at the risk of somebody else and use that as a commodity. I don't know, it is a very difficult thing, I think.

Again, having just told my children that you can't be gleeful about somebody else's misfortune, it is a marketplace that I think gets very, very dangerous in terms of how it defines itself and the position it puts us in as individuals.

But I think our purpose—my purpose, certainly, in being here today, Mr. Chairman, is to better understand how it is that Congress can help and what it is that we can do. We by no stretch of the imagination, or I certainly don't as a member of the U.S. Senate, profess to have any or all of the answers. We will be looking to the professionals for help in figuring how it is that we do provide the kind of transparency that is necessary but still maintain our ability to work in a global marketplace and not get left behind, and I hope that we will, and I know that with the dedication of this committee and others, we will find those solutions.

Thank you, Mr. Chairman.

Chairman HARKIN. Thank you very much, Senator Lincoln.

I want to thank my colleagues for being here today. This is extremely important—I don't need to say that the issue that confronts us and that the Congress is really going to have to dig into in the next few weeks, hopefully a few weeks, or a few months.

Again, just for the public and for the people who are here, why is the Senate Agriculture Committee having this hearing? Because this committee has jurisdiction over the Commodity Futures Trading Commission. Many of these instruments that we are talking about have the features of commodities and many of them have the features of futures contracts. As I said in my opening statement, they were exempted in the early 1990's and then excluded in 2000 from the CFTC's jurisdiction, but again, we are trying to find out what is the role of these derivatives and what is the appropriate role for the Commodity Futures Trading Commission in regulating these financial instruments. We all serve on other committees we are on, too, and we are all going to have to address this in other forums, other committees and perhaps on the floor of the Senate, so it may not be just limited to the Commodity Futures Trading Commission as such.

I want to thank all of our witnesses for coming today. I have read all of your testimonies. They are very good. I would say that all of your testimonies will be made a part of the record in their entirety and I would ask that you summarize them so that we can get into a general discussion perhaps.

We have two panels. Our first panel will be led by Mr. Eric Dinallo, who is the Superintendent for the State of New York Insurance Department for the State of New York. Then we have Dr. William Black, an Associate Professor of Economics and Law from the University of Missouri in Kansas City, and Dr. Richard Lindsey, President and CEO of the Callcott Group in New York.

So again, I welcome and thank you for being here. We will start with Mr. Dinallo, and again, if you could summarize in, oh, I don't know, seven, eight minutes or something. We are not going to time it completely, but summarize as best you can. We would appreciate it.

STATEMENT OF ERIC R. DINALLO, SUPERINTENDENT, INSURANCE DEPARTMENT, STATE OF NEW YORK, NEW YORK, NEW YORK

Mr. DINALLO. Thank you, Chairman. Thank you, Senators. Your opening statement to me was a tour de force and you don't really need to add much on the substance of credit default swaps. It sounds like you understand them real well, actually, from my modest perspective. So I will give you a couple of personal thoughts and then I will tell you what I think the history was, which I think could be enormously helpful for you.

I think that there is one observation I would make, which is that we seem as a society right now very concerned with the shorting of equity and naked shorts on the equity side, but yet a far larger by orders of magnitude exposure is on the credit side, on the bond side, on credit worthiness, which is essentially what credit default swaps are about and naked credit default swaps.

Naked credit default swaps I use to mean where you don't have that interest. You are not holding the bond. You are just doing the bet that you described before. That is possibly as big as ten times the original hedging enterprise that was developed. So people developed credit default swaps to do what you said, which was to hedge or ensure their exposure. They held bonds in a company and they were afraid the company might default so they swapped—that is the swap—they swapped their exposure to that default with somebody else. They bought insurance, essentially.

But that was far eclipsed by the naked credit default swap, where you didn't own the bonds, had no exposure to the reference entity, as you put it. You just wanted to place a bet, a directional bet, as Wall Street calls it, on the future. And that now has grown in a number that is possibly as much as 80 or 90 percent of the marketplace, that $62 trillion marketplace that you described that is completely unregulated.

And what is interesting is that it wasn't insider trading or late trading or off-balance-sheet transactions that hurt us. It wasn't firm regulation or soft regulation or strong enforcement or lax enforcement that apparently helped to blow up the global economy. It is what we chose not to regulate. That is kind of an irony about this, is Wall Street is, as you would expect, going to fill a vacuum. So if you tell them everything over here is unregulated, they are going to kind of reproduce their activity in the more inexpensive, less capital intensive way in unregulated areas, and credit default swaps and other derivatives brilliantly permit them to do that and that is, I think to a large extent, what this is about.

So how did we get here? It didn't used to always be this way. In 1907, there was the great crash and market failure that caused J.P. Morgan to bring everyone in a room and led to central banking, et cetera, and very soon thereafter, there were laws that were developed to address the very activity that contributed to that failure, and those were commonly called the bucketshop or the gaming laws of the various States.

The activity that was going on there was not very much different, if even distinguishable, from credit default swaps. It was uncovered, on margined or credit betting, essentially, on how markets were going to close, what the prices were going to be. It was speculation, rank speculation, without holding the actual instruments, with, quote, "no intent to buy or sell the referenced security," which is like a credit default swap. You don't actually own it, right? We just said that.

So the laws were there since 1909. They are very clear. I have put them in the record. And they operated fairly well for a long time and then someone decided we had kind of grown out of our blue jeans, as you said. I don't think we did grow out of our blue jeans. I think a lot of this stuff is kind of either religious or spiritual or even Euclidian. There are certain first principles that people discover along the way. They put them in place and then they just kind of forget about them or they think—they kind of smart themselves into thinking that the precepts have changed.

So by 2000, we engaged in the Commodities Futures Modernization Act, which specifically did a few things. It made credit default swap not a security, so it couldn't be regulated as a security. As you said, put it out of the reach of the CFTC. And it says this Act shall supersede and preempt the application of any State or local law that prohibits or regulates gaming or the regulation of bucketshops. So it wasn't anything. It became a private contract, as ISDA will tell you, but it hadn't always been that way. It had either been considered generally either gaming, insurance if it was a covered variety, securities, or some kind of a futures, and we decided that it wasn't going to be any of those because we had as a global economy outgrown the pants.

I think to a large extent, that is what this is about, is for you to sort of think about a revisitation of that. The Governor of New York, Governor David Patterson, stepped up a couple of weeks ago and said, we are willing to regulate the portion that is clearly insurance, where you have an insurable interest, where you own the reference obligation, and then soon thereafter—I think the next day, Chairman Cox said he would like to have jurisdiction over CDSs, credit default swaps, and other kinds of derivatives. And then people began to talk about a more holistic solution like you are discussing, whether it is an exchange or clearing corp.

We are kind of agnostic to some extent on all those. I would like us to see as a country a holistic solution. I would just give you sort of the earmarks of a good holistic solution, I think.

I think they are that it would be optimal to have a central counterparty, so you have strong capital behind those bets, you have a very capitalized, very robust central counterparty that has a guaranty fund and the earmarks of sort of a solvency or capital regime. That you have clear margining rules so you know exactly how much people are putting up on each transaction. You have rules of event determination, because you have got to all agree on when someone did file for bankruptcy or insolvency or default so there are no squabbles about what event triggered the payment on the obligation. And last, sort of the same as rules of dispute resolution, so you can quickly resolve those arguments and so capital, as you said before, can quickly and freely flow.

I think regulation would be excellent for this market. I think it has seized up now completely because of a lack of regulation and a complete lack of faith in it. And so I think you are going in exactly the right direction. The State government is only sort of showing the way by saying that which is obviously insurance, we are ready to step up and revisit some of the decisions we made, too, because we certainly in 2000 issued an opinion letter that said for naked credit default swap where there was no proof of loss required, we were not going to call that insurance. We should have been probably more aggressive and asked or pointed out that there might have been some forms of insurable interest that we do need to regulate.

So this is not political. I think collectively as a society, bipartisan in 2000 that it was, we agreed, and it is amazing that only in 8 years, look what happened. And I think that is the shorter history. I will put these documents, the bucketshop laws for New York, and if each State has one. The CFMA, you obviously have, but I will put it in the record for you so you have the clip there.

But I think that is from my perspective, given your already impressive explanation of what credit default swaps are, what I would contribute to this, and I can answer questions from the written testimony or anything else at your pleasure. Thank you very much.

[The prepared statement of Mr. Dinallo can be found on page 73 in the appendix.]

Chairman HARKIN. Thank you very much, Mr. Dinallo. As much as I have been into this and reading and trying to understand it, I never thought about the comparison to bucketshops. Interesting. An interesting comparison to the old bucketshops as a credit default swap. I think now I see it more clearly.

Dr. Black, again, welcome to the committee. We will go through the witnesses and then we will open it for questions and discussion. Dr. Black, again welcome, and please proceed.

STATEMENT OF WILLIAM K. BLACK, ASSOCIATE PROFESSOR OF ECONOMICS AND LAW, UNIVERSITY OF MISSOURI, KANSAS CITY, MISSOURI

Mr. BLACK. Mr. Chairman, thank you, and committee members. Your broader question was about derivatives and, of course, there are many more derivatives involved in this crisis and the one to start with, I think, is mortgage-backed securities, which are a financial derivative, and that takes you inherently to looking at the underlying, because, of course, it is a derivative from the underlying, and that is where you have a central area of problem. So whenever you think of derivatives, also think of the underlying, because any problems in the underlying will be brought forward in the derivative process.

So what went wrong in that area, first? Fundamentally, perverse incentives, and perverse incentives on the compensation side. Senator Crapo properly said we would like capital to move freely and efficiently, but those two goals are inconsistent in practice, right? We had capital move freely through this process and it moved inefficiently. Our markets are less efficient because of the way mortgage-backed securities moved in the case of subprime. I mean, we have created, instead of efficiency, a worldwide crisis, right?

So yes, those two goals are important, but the efficiency is the only real goal. Moving freely is just a way to get to the goal of efficiency, and if it doesn't produce efficiency but a disaster, then you don't want it to move freely because it is not moving in accordance with appropriate market forces, right? And that is what we have seen in the subprime and alt-A. I don't think that is controversial to people at all, and we have seen that this can produce an astonishingly large crisis because of the connections.

We are seeing fraud incidents in subprime and alt-A of 40 percent or more. The FBI has been warning since September 2004 of, quote, "epidemic," unquote, mortgage fraud. In 4 years, investment bankers who purchased, pooled, and created the nonprime mortgage-backed securities made an average of one-half of one criminal referral per firm, with a fraud incidence of 40 percent or more.

Chairman HARKIN. Say that again, Mr. Black.

Mr. BLACK. There were roughly 46 criminal referrals from roughly 24 investment banking firms over 4 years, and they handled roughly two million subprime and alt-A mortgages, with a fraud incidence ranging around 40 percent. That is why we have a disaster.

Yes, greed, we have always had with us, so something else has been added to greed and the something else is a derivative. It is called a mortgage-backed security. It is a derivative that doesn't exist in the market now because it is a non-prime mortgage-backed security and the markets have finally shut it down.

But I would add that the norm is that there was never such a market. There is only about 8 years of the history of the world where there was such a market and we are treating it as if it were the norm. It isn't. Non-prime mortgages were never appropriate candidates for securitization under the theory of securitization. They are not remotely homogeneous.

And when you have huge fraud incidence, you can't have a subprime market—I am sorry, a secondary market, because the theory of the secondary market is, I don't have to carefully underwrite the stuff that is underlying. It is supposed to have already been vetted, right, and you can't have a secondary market where everybody has to check everything all the time.

Private market discipline was supposed to prevent this. It was supposed to be the thing that would move money if it moved freely capital to efficient purposes. It doesn't work that way when the compensation system is perverse. When the rating agencies give AAAs to stuff that was formerly known as toxic waste, then more capital will move to toxic waste and you will have a toxic crisis, and that is exactly what we have.

The Brits, in soccer, we would call this the greatest own goal in the history of the world in terms of the deregulation, the de-supervision, and——

Chairman HARKIN. What do you call it?

Mr. BLACK. Own goal. It is a term when you score against yourself.

Chairman HARKIN. Right.

Mr. BLACK. You kick it into your own goal instead of the other team's goal.

Chairman HARKIN. I have got it.

Mr. BLACK. Soccer is our family passion. Sorry.

And to bring it back to incentive structures. There have been a series of scandals in China, for example, of putting poisons in infant formula. Why do people do that? They did that to make money and to win in terms of competition.

What happens if you let them get away with that? What happens if you let people gain a competitive advantage by cheating? Then you create a system where cheaters prosper and that is what happened—we call this in economics a Gresham's dynamic, where bad ethics drives good ethics out of the marketplace if the incentive structure becomes so perverse that cheaters prosper.

So think of yourself as a potential chief financial officer 3 years ago. You know that this stuff has been called toxic waste. You know that you are in the midst of what is going to be the largest bubble in the history of the world, financial bubble, which is the U.S. real estate bubble. You know how badly this is going to end. But what happens if you don't invest in subprime and alt-A and your competitors do? During the bubble phase, there are very few defaults on subprime because you simply refinance it. There are much higher fees and somewhat higher interest rates. So the people that do lots of subprime and alt-A report that they have the highest earnings. Their bosses earn the biggest bonuses. Their stock appreciates. Their options become more valuable, et cetera, et cetera, et cetera.

If you as a CFO refuse to do that—the average CFO in America lasts less than 3 years. Think of the incentive for short-time approach. If you don't do it, not only do you not get your bonus because you don't hit the high target figures, but your boss, the CEO, doesn't get his full bonus, and all of your peers don't get their bonus. And so you rightfully fear that you will lose your job, as well.

Does everyone give in to this? Of course not. But enough people do that we call—that is why we call it a Gresham's dynamic. It is well known in economics and it means that you need the law enforcement, you need regulation to change the incentive structure so that cheaters don't win, they don't prosper.

The key thing with many of these financial derivatives was not their risk, but the fact that they were over-the-counter, that they had no readily verifiable asset value, because that is what you use for accounting fraud, things that are hard to value, right? We did it in the savings and loan crisis. You get unique office buildings because then there is no clear comparable, so the value is provided by an appraiser. Well, how difficult is it to get an appraiser to dramatically overstate asset values? We have just had a real-world experiment, and they did it a million times with subprime and alt-A.

So these derivatives, and let me just briefly go to the ones you have been talking about more, the credit default swaps and the collateralized debt obligations, which in many ways are even worse on an individual basis than the CDS.

The CDS—credit default swaps were created primarily for not very good purposes. Now, you have heard that one of the stated purposes was to reduce risk, and there was some truth to that, but as you can see, in fact, systemically, it increased risk. In Paul Volcker's telling phrase, they have failed the test of the marketplace, and that is the only test that counts, frankly, in this regard.

But the real purpose in the ones I deal with more is banks who are massive players, and banks did credit default swaps primarily so that they could increase their leverage by taking things off of their balance sheet and reducing greatly their capital requirements under what is called Basel II.

And the second major purpose and the largest one probably by volume is to do shorting, and there were already instruments available to short. They were simply more transparent, and so they deliberately picked a mechanism that is not only not regulated, but because it is not regulated, is incredibly opaque.

So the first thing I would suggest to you is we need information, because one of the scariest things is nobody knows, and that has enormously made it more difficult for the Fed and Treasury to respond to the existing crisis.

The second thing is you can't simply ask for data. Mr. Dinallo appropriately said the market seized up because of a lack of trust, all right. He gave an example previously. Well, think about that. At law, the defining element of fraud that separates it from other forms of theft is deceit. Fraud is all about creating trust in your victim and then betraying that trust. There is no more effective way, therefore, to destroy trust than to have significant accounting fraud of the kind that we have pervasively.

And when people don't trust—if you know that one in 100 of these bottles is contaminated, how many of them are you going to drink? Fraud doesn't have to become endemic to cause markets to seize up because of a lack of trust. When you know that there are very large losses out there but you don't know where, when bankers no longer trust bankers because they don't know which balance sheet is contaminated, then entire markets seize up and we have to change that by creating credible information and data, and that is going to require regulation. A clearinghouse is a valuable step, but it will not protect you against financial bubbles.

During the expansion phase, you would have done the daily mark to market in your clearinghouse and everyone would have said, no problem here, but there would be a trillion dollars of losses building up. So it is a good but not sufficient response in terms of for any future systemic crises.

I think I have used an appropriate amount of time or more. Thank you very much.

[The prepared statement of Mr. Black can be found on page 68 in the appendix.]

Chairman HARKIN. Well, Dr. Black, thank you very much. That was provocative in a very good way, I think. It makes us think about just what these instruments are.

Now we turn to Dr. Lindsey, President and CEO of the Callcott Group. Dr. Lindsey, welcome.

STATEMENT OF RICHARD LINDSEY, PRESIDENT AND CHIEF EXECUTIVE OFFICER, CALLCOTT GROUP, LLC, NEW YORK, NEW YORK

Mr. LINDSEY. Good morning, Chairman Harkin and members of the committee.

In my written testimony, I attempt to correct several of the widespread misconceptions associated with credit derivatives, for example, concerns about the outstanding notional value. Briefly, the notional value represents the amount of money that protection sellers would owe protection buyers if every single underlying credit entity defaulted and the value of their debt went to zero. Given the primary credits on which credit default swaps have been written, focusing on the notional value would mean that the companies General Motors, Ford, AT&T, Eastman Kodak, Time Warner, General Electric, Telecom Italia, France Telecom, and the countries of Brazil, Mexico, Turkey, France, Italy, and Japan all defaulted simultaneously and the value of their debt went to zero. That scenario, in my view, is highly improbable.

But rather than devote time to each of the issues with misconceptions this morning, I will instead touch on the four things that should be done to reduce systemic risk associated with credit derivatives.

No. 1, a centralized clearing organization should be created for default swaps. This would place a clearing organization on each side of a credit default swap, thereby reducing the counterparty risk, which is really the primary risk we have been seeing in the market today, with a centralized clearing party.

No. 2, appropriate capital requirements should be established. Capital charges should not be solely based on the level of market risk associated with the swap book but also of counterparties. While multiple counterparties may diversify a risk to some extent, the capital charges should increase with aggregate exposure to those counterparties. In other words, even if the market risk cancels in a hedge transaction, the counterparty risk, at a minimum, should double unless it is a true cancellation of the contract.

No. 3, we should increase the transparency associated with each reporting company's use of credit derivatives. The soon to be effective FASB amendments will go a long way to meeting this objective, in my view.

Finally, and in my view the most important, corporate senior management and boards of directors must recognize their responsibility to understand and control the risks that their firms are assuming through both business operations and financial market activity. It is not sufficient to receive assurances that everything is well controlled. Each individual has a duty to probe, to challenge, and to ensure that he or she has confidence in and understands the answers. It is not the board's responsibility to know and understand every single trade, but each board member must understand the firm's business lines and the use and misuse of derivatives. If a board is not truly confident in its understanding of derivatives and the associated risk controls, then the firm should not be allowed to use or trade derivatives.

Thank you for your time and attention. I will be happy to answer any questions.

[The prepared statement of Mr. Lindsey can be found on page 87 in the appendix.]

Chairman HARKIN. Mr. Lindsey, thank you very much, and again, I thank all of our panelists for being here.

It is hard to know where to begin sometimes in this, but I guess one of the first questions I have has to do with opening the books. It kind of gets to what you were saying, Dr. Black. We are being asked—well, we have been asked and we have done it—we have provided for the U.S. Treasury and the Secretary of the Treasury to use up to $700 billion to buy paper from these companies that are going to auction them off in a reverse type of an auction.

I raised the point with Secretary Paulson once, and I wouldn't paraphrase his answer here, he can do that on his own, but what bothers me is that it is like a bank. We taxpayers are sort of like the bank. We put all this money up to buy this paper. We don't know what it is worth. They say it might increase in value over time, okay, but we don't know. But at any bank, if someone who is bankrupt, if a company that is bankrupt goes into a bank and wants to get bailed out to survive, surely the bank is going to want to look at the books. Am I wrong?

And so, therefore, it is not just the balance sheet that we need to look at in these companies. That doesn't tell you much. It tells you what their indebtedness is, but it doesn't tell you how they got there. And I think you kind of touched on that, Dr. Black, maybe Mr. Dinallo, I don't know, but my question is, shouldn't we want to know how these companies—if we are buying their paper, shouldn't we want to know how they got there? What were their proprietary formulas? What were their mathematics? What were their probability tables? What did they use to value those? Not just their balance sheets, but what were the models they used? To me, that—is that good information that we should have? Should we insist on that? If they want the taxpayers to buy their paper, shouldn't we insist to know the models that they have used to value those assets. Am I clear or not?

Mr. BLACK. Yes, and I even wore a prop today. It is the tie. This is a reproduction of a portion of Lewis and Clark's journal from their voyage of exploration, when we knew nothing about the land out there in the West and we needed to find out and we sent people out who kept incredibly good records and tried to be accurate, and we need that desperately today because we do not know.

So two things you have to understand about either deregulating or desupervising. One is de facto, you decriminalize it because the only cops on the beat in white collar crime are the regulators.

The second thing is you make the industry opaque and you create an inherent trust problem if the numbers they generate come not to be trusted, because no one can verify them.

So what do we need to do? Yes, we need reporting, but you need more than reporting, and you are quite right that you need to know how the models worked and how they changed over time. But you also have to know about their accounting, right, because the numbers generated by the models may not drive their accounting purposes. And what you have just seen with all of these major failures—there has been all this stuff about mark to market, but none of them were marking to market and you can tell that because of the losses they had to recognize in connection with the failures and because when potential acquirers went in and did due diligence, they ran away screaming.

Chairman HARKIN. So what you are saying is we need two things, not only look at the books and the formulas and the proprietary models they use, but also how did they do the accounting after they used those models.

Mr. BLACK. That is correct, and you have to look at the purpose—I think you were asking about this, as well. Often the purpose of the investment is critical and often it is misstated. There will be a purported hedge. It will actually have been increasing the speculating. That is very common.

Chairman HARKIN. Again, I want to get to this question of shouldn't we insist on knowing their proprietary models. You have given me another thought on their accounting. I didn't quite think about that. Mr. Dinallo? Dr. Lindsey?

Mr. DINALLO. I think, Chairman, to a large extent that is what you see in insurance regulation. You see sort of an overview of the underwriting decisions and the reserving against the risk written in the capital requirements. It is, in my mind, one of the earmarks of what we have gone through, is that people didn't own the risk that they wrote. We engaged in the ultimate moral hazard here, both as a society on the front end and to some extent the actions by the Federal Government are consistent with that to some degree.

We sent people out there giving loans. The first round of loans that was securitized performed really well. They were based on the fundamentals of people owning a home and banks understood they would own the defaults if people didn't pay, so they made those underwriting decisions very well.

There was probably a second round that the banks, the local banks said, I wish I could give a second round because I saw a lot of people who deserved a loan but I had to make some tough decisions. So Wall Street helped with securitization, a wonderful tool.

But after the seventh or eighth iteration of that, we basically—we correlated the risk because we made non-natural loan performance kind of a hallmark of our society and no one owned the downside of their underwriting decisions because the banks passed it to Wall Street to securitize it. Then investors bought it in the form of CDOs. And then they took out CDSs, and nowhere in that chain did anyone say, you must own that risk.

And I think to a large degree, when I talk about this, there are three things I talk about: CDSs, which we have talked about; that endless securitization, we have to sort of make people own their underwriting decision; and the third is possibly a revisitation of the modifications to Glass-Steagall, which I think is for a different day. But that, to me, is a large—you should be looking at the books, yes.

Chairman HARKIN. Dr. Lindsey.

Mr. LINDSEY. I actually don't think——

Chairman HARKIN. Again, my question is, should we, if we are going to buy the paper, insist that they show us their books and the models that they used to reach those—how they did those different iterations in those derivatives.

Mr. LINDSEY. Well, I actually don't think looking at the models does very much for you because, in part, of course, they are what they are. However they got there, the positions and the values of the securities are what they are today. So what you need is actually a forward-looking way at the values of those securities. So how they modeled it 3 years ago is almost irrelevant in terms of what does it mean going forward.

Part of the problem, of course, was that the default history, or the history of transactions associated with these securities, was very short, so in the early stages, people did not see the number of defaults, so they were relying on models and a time series of data that was misleading.

I think, though, that I also want to point out that buying the paper that is in default is perhaps a somewhat inefficient way of dealing with the issue. As has been pointed out by both of my fellow panelists, many times, multiples of the mortgages have been written and in some cases by people not even owning the mortgages. But underlying all of this is really the mortgage, and the mortgages that are in default, those mortgages that are in default are still going to be in default no matter what happens. And in some cases, I think it was pointed out that the paper may be ten times the underlying level of mortgage that were in default.

So if I recall the chart that you put up earlier, it showed something like about $19 trillion of total home equity ownership in the United States. Well, not that many are mortgaged. It is not quite $19 trillion. But somewhere around 10 percent of those are in default, so we are looking at a little over a trillion dollars of mortgages in default.

A more efficient way to inject certainty into the marketplace without buying paper upon paper upon paper is actually just to stand behind the mortgages. I talked about this a little bit in my written testimony, but one of the ways to modify this and inject certainty immediately is actually just to guarantee the mortgages. Probably more efficient and you end up with real estate rather than with a lot of paper.

Chairman HARKIN. Well, that would seem to me, then, you would let the mortgage lenders off the hook. They get the inflated price of what they lent and they walk away with the money under your formula. Do you see what I am saying? They made these huge subprime loans and stuff and now you are just going to buy them at that value?

Mr. LINDSEY. Where are we buying them now?

Chairman HARKIN. You are not.

Mr. LINDSEY. I believe we are.

Chairman HARKIN. As I understand what we are going to do, it is going to wring this out of the system and a lot of these lenders are going to have to swallow a lot of those losses.

Mr. LINDSEY. There will be losses swallowed someplace. There have to be.

Chairman HARKIN. But under your formula, they wouldn't take a loss.

Mr. LINDSEY. Some people would take losses. Anybody that was short the mortgage market would actually take a loss.

Chairman HARKIN. Well, I would have to think more about that. I don't know if I understand it fully.

I think I have exercised all my time. I do have one last thing. Again, I was trying to get at this idea—Dr. Lindsey, you said it wouldn't do any good to look at these books because that is the past. Go into the future. But it would seem to me that we would want to know whether or not there really, truly was accounting fraud going on in the way they used those models and the way they accounted for them.

I have been told that that is one of the reasons they don't want to open their books, is because there has been a lot of accounting fraud going on. I don't know if that is true or not. I have been told that. But it would also seem it would be important for us to know how they got there, to see if there was accounting fraud and also to make sure that if, in fact there was, we are going to have an open and transparent system in the future, that we don't rely upon those kind of models.

Mr. LINDSEY. If there was indeed accounting fraud, the SEC has sufficient jurisdiction, of course, to investigate and pursue accounting fraud, and they should.

Chairman HARKIN. But we wouldn't know that unless we really got into these books.

Mr. LINDSEY. But they have the ability to do that.

Chairman HARKIN. Who is "they"?

Mr. LINDSEY. The SEC and the accounting firms.

Chairman HARKIN. I didn't know that. Did you have any other observations on my question?

Mr. BLACK. I have a couple. First, you also want desperately to look at not simply their books, but they need to look at the actual assets. It is clear from the fraud incidents that nobody has cracked a file and done real underwriting. In other words, open the files. Fitch did this—this is one of the rating agencies—and they are the ones who found 40 percent fraud rate just from a file review. That is not private detectives going out and looking, just obvious on the face of the file. That tells you, since two million pieces of this paper were traded, that nobody looked. And so the desperate thing we need to know is credit quality and we know that they are not looking. So that is first. They need to look and we need to look at what they are finding.

Second, the FBI has said that 80 percent of the mortgage fraud was induced by the lenders. I think that is relevant to your question of if somebody is going to get bailed out, or bear a loss, who should it be, and I would simply concur with you. You need to know about the old models and there is not a comprehensive Securities and Exchange Commission investigation after the greatest crisis since the Great Depression. The SEC is overwhelmed. It is a simply a commercial. I don't work for them, but they desperately need more resources. That is a plug.

Chairman HARKIN. Thank you all very much.

Senator Lugar.

Senator LUGAR. Thank you, Mr. Chairman.

You have made a good number of points, each one of you, about transparency, but one of the transparent parts of this you have just discussed, Dr. Black, is the officers of the bank or its directors and the amount of knowledge that they have of the business that they are conducting. I don't know how you have a post-mortem examination of each of these boards as to how competent they were, whether they fulfilled their responsibilities, but it is an interesting question, well beyond the scope of our situation now. What constitutes capable management in this country? What is the responsibility of these people who are receiving salaries and who are receiving fees and so forth to their own stockholders, quite apart from the other people?

I will leave that one aside but simply say, clearly, the Congress and the public sector have some responsibility here, and it is a benign one, namely that it has been the hope that all Americans could own their own homes. We often have had statistics in the past that 60 percent, more or less, of Americans own their own homes. There is a high degree of idealism that has pushed that idea to get farther.

Now, let us say you were junior loan officer at a bank and you had at least a possibility of issuing subprime mortgages to people. You could say you are doing the Lord's work. You are attempting, in fact, to get people into homes. And if the time and economic cycle is right, you could probably make a lot of loans to people. You may not have examined carefully or barely at all, really, their capability of repaying it, nor did maybe some of the people who are borrowing the money anticipate that there would be trouble in what seemed to be a rising set of home values.

But at the same time, we now have a situation in which very clearly we are going to say for a moment this is not the American dream. It is an American nightmare for a great number of people who made the loans, and likewise those who can't repay.

Now, the dilemma that you have all described today is that since the people making the loans in most cases no longer own the loans or have really much responsibility, or maybe even a track because of the bundling and then the down-trail situations, the responsibility of people involved in the business is gone. There has not been an examination apparently by the directors of the bank or its officers. You have described situations in which maybe their salaries and bonuses may be based upon the sheer volume and the numbers that they created in this process.

So I don't know how, once again, we remedy all of this, the morals involved in it or the bad management. But at the end of the trail, you have made a suggestion that I am intrigued with and I just ask for your opinion, Mr. Black, or anyone else's, and that is that we have talked today about this insurance policy that Senator Harkin described in his chart in which if somebody is obtaining these pieces of bundles, they might say, we are not altogether sure what is in the bundle and therefore we would like to get some insurance. So we are willing to pay a fee to somebody to relieve us of the load, or whatever percentage of insurance you want to get. Now, that seems to me to be probably a prudent thing to do by the time you go to a second or third bundling of this, to at least have some insurance.

But what you are suggesting is that, in fact, if I gather you right, 80 to 90 percent of the items being insured were not owned. There wasn't this responsibility. In other words, it became a naked gamble. Somebody said, the market seems to be going right. Why not bet on it one way or the other by taking out the insurance on something I really do not have?

It seems to me as a matter of public policy, as we are thinking about prohibitions today, that is a practice that should be banned. There is no legitimate public purpose for this occurring. I can imagine if we have market theoreticians in here, or even extremists in terms of the free enterprise system, they would say, well, this is one of the ingenious ways in which the market has worked better.

But in this particular case, given lack of observation by officers and boards to begin with, then bundling, an attempt finally to insure mistakes that somebody else made and may not have thought about, but you find you have just a few people insuring and the bulk of them gambling in this particular mechanism. That simply cries out for reform. And my own judgment is, if not prohibition, something pretty close to that.

Does anyone have a comment about my phobia with regard to all this?

Mr. LINDSEY. Well, what I was trying to explain before is in or around 1909, it was, in fact, essentially illegal to do that kind of activity. I do believe, though, having now studied this for a bit, there are some gray areas that have to be dealt with. So you have something between the sort of orthodox or sartorial credit default swap, where you really do have an insurable interest, you own the bonds or you own the CDOs and you are buying that cover——

Senator LUGAR. But you own it at that point.

Mr. LINDSEY [continuing]. And you have the pure naked directional bet. It is you and me just betting on whether Ford is going to default or not. We have no otherwise interest in Ford. But in between, there are, as we put in our written testimony, there are some gray areas. You might be long stock and want kind of a way to balance that. You might have receivables with the company, and in case the company defaults, you want to have something to sort of make up for the loss you are going to end up taking in a bankruptcy. I mean, there are gray enough areas that I think that what we hope comes out is that we set some sort of holistic solution that has one of its earmarks is a lot more capital behind all those activities.

So what you are saying, Senator, is essentially correct, and the way you would come close to prohibiting it, so to speak, but not really is if you made it a little more or a lot more capital intensive by either having an exchange that had certain capitalization requirements or that people participating in it have certain capital requirements by their regulators, which I think is sort of what is going to end up happening. You would essentially make it so that it would be expensive enough that you really would need to have an interest to want to go out and do that kind of activity.

Senator LUGAR. You need ownership along the way, would be another way of looking at it.

Mr. LINDSEY. Yes, or you would have to, like an insurance company has to do, have a certain amount of capital behind that bet that you are taking or making.

Senator LUGAR. At the bottom of all of this, we have talked about transparency, and that is clearly the case. But it had not been clearly the case in many of the transactions we are talking about now. It is sort of a cardinal virtue. It may be transparent and still the bank officers and the bank directors don't read the papers, or they don't have investigators looking at what they have actually got in the vault, so there is a degree of due diligence, much more due diligence involved in all this. But how do we obtain that? In other words, can you contrive a situation in which officers and directors who are inefficient or incompetent are penalized, aside from the fact that all their banks fail at one time and the Federal Government then is asked to come to the rescue?

Mr. BLACK. We have to be, I think, more blunt than we usually are in the regulatory financial world. Yes, more capital would be a very good thing, but these instruments proliferated precisely as a way to reduce capital. Yes, transparency is a good thing, but these instruments were designed specifically because they were opaque. Indeed, in many ways, they are worse than opaque. We think the opposite of transparency in terms of badness must be opaque.

But to me, the appropriate metaphor is the one you see in the passenger mirror in your car, that image that looks so absolutely clear but it has a warning and it has a warning precisely because it looks clear, that objects in the mirror are closer than they appear. And when you game the accounting, insolvency is closer than it appears. In fact, it arrived 6 months ago, is what we are finding in these circumstances.

So we have—now the suggestion is we come and we fix all of these things with capital, but they are just going to look for weak areas and push in because their goal consistently will be to find opaqueness and reduce capital, because leverage is what it is all about. So I think you have to think more fundamentally and we have to be more candid about whether trying to prescribe capital is really going to fix this.

Senator LUGAR. My time is up, but Dr. Black, it would probably be helpful, at least to my understanding, if you could make a list of specifically what are the instruments that should be stopped.

Mr. BLACK. All right.

Senator LUGAR. In other words, if, in fact, we are depreciating by finding new ways to cheat the system, as fast as we regulate, why, somebody else contrives something, but you have described at least a few of these instruments this morning, and I tried to make notes quickly. But if you were to be a legislator and you would say, if we stopped this instrument and this second and this third and this fourth, we would have a better system, that would be helpful. Then we can argue about that.

Mr. BLACK. I won't be a legislator, but I will act like a staffer.

Senator LUGAR. Very good. Thank you.

Chairman HARKIN. Senator Crapo.

Senator CRAPO. Thank you, Mr. Chairman. I appreciate Senator Lugar's questions because he went into the first area that I wanted to go into, the issue of the naked swaps and whether there should be greater capital behind them.

And just to wrap up on that very quickly, as I understand it, Mr. Dinallo, up to 80 to 90 percent of the swap market is naked swaps. Is that what you said in your testimony?

Mr. DINALLO. Yes, and you could—just parenthetically, you could question whether credit default swap as opposed to the naked ones is a totally oxymoronic concept because you had no risk until you entered into the contract. In other words, you are sitting in your home. You don't have any exposure to the third race at Belmont until you go to the track and place the bet. So I am not clear what the mitigation of risk there was. It was the swap is what created the risk.

Senator CRAPO. The one thing I wanted to clarify there is exactly what you are talking about. When you talk about a naked swap, are you including circumstances like you indicated in your response to one of the questions where an individual might be long in the stock of a company or might have receivables or something other than the actual underlying asset to which the swap relates?

Mr. DINALLO. I think—I believe that in sort of classic insurance law, you would consider that arguably as insurable interest, but it is very hard to get your arms around, so it might be——

Senator CRAPO. But are those situations part of the 80 to 90 percent——

Mr. DINALLO. Oh, yes, sir. Yes, sir.

Senator CRAPO. That is the only question I was trying to clear up there.

Let me move on to another issue and that is an issue that all of you, I believe, have talked about, but Mr. Black, you indicated that one of the concerns you had with the clearinghouse approach, not so much that you were concerned with the approach but that it wasn't a perfect solution, is because it does not stop losses from building up in the system. Am I correct that this was your statement?

Mr. BLACK. Yes. During a financial bubble, you would still have huge losses building up that wouldn't be netted out on a daily basis because they wouldn't be showing up yet.

Senator CRAPO. Mr. Dinallo and Mr. Lindsey, do you agree with that or does the clearinghouse or creating a central clearing entity help to mitigate that buildup of loss? I thought that it would. That is why I am asking the question.

Mr. LINDSEY. As long as the buildup of loss, as Dr. Black is pointing out, is built up by an increase in what people believe to be the value of the underlying asset, no, a clearinghouse doesn't mitigate that loss. All it does is replace counterparties with a central clearing party.

Let me make one point, though, about this, whether we call it naked swaps or otherwise. It is important to remember, of course, that futures, which I believe this committee is probably well versed in, is just a form of insurance for farmers, because a farmer can hedge the price associated with their crop. So if you think about banning product or trading of activity associated with somebody that doesn't have an existent exposure to it, it is the same thing as cutting out the vast majority of the futures market, which, of course, is what drives part of the price transparency and part of the ability to see where prices are going with agricultural futures.

I do not think that you really want to think about banning a particular product. Without a doubt, there needs to be more capital control, more supervision and regulation associated with this product, more transparency, and I think centralized clearing would help a lot. It is not the answer to everything. But you don't want to get rid of the ability to discover price.

Senator CRAPO. Thank you very much.

Mr. Dinallo.

Mr. DINALLO. I would disagree on one and agree on the other. I think the futures or the farmer example is more akin to the gray area that I discussed, where you do have exposure. It is of a second order, but you do have exposure. You are buying some kind of insurance against crop failure, et cetera, or the market vicissitudes.

On the second, it is sort of—this would be the order of interest to me. You would have a clearing corporation which would give you some enumerocity so you would know about how much CDS was written out there. We never knew how much had been written on AIG, et cetera. Then you have an exchange. But I think that if you really want to get at this issue that they are talking about, you need to have this central clearing party—central counterparty that has capital that is the ultimate insurance company or house against those bets. So the capital rises, the reserved capital rises as the values go up so then there is, in fact, something behind the bets.

Senator CRAPO. So you are talking about not only a central clearing party, but a guaranteed fund of some sort or——

Mr. DINALLO. Yes, sir. Exactly.

Senator CRAPO [continuing]. That would need to be initiated, as well. I appreciate that.

I want to move for the last 2 minutes I have here or so to another issue entirely, and it gets to the suggestion that you made, Mr. Lindsey, about the fact that we should stand behind the mortgages rather than to buy the toxic securities, which I tend to agree with the notion that the plan that Congress passed was one that basically put the taxpayer in the front position to assume a whole lot of risk in an entire marketplace, basically, that did not necessarily need to be done that way.

The question I want to get at here is what kind of losses there are. We have talked about the fact that we have a $19 trillion real estate asset, ownership in the United States, and if I understand your testimony, Mr. Lindsey, something like 10 percent of that might be—well, it is not all mortgaged and 10 percent of the mortgaged part of it might be in default, is that correct?

Mr. LINDSEY. That is right. That is correct. Somewhere around a trillion-two is in default.

Senator CRAPO. And in that context, we don't know what—I think the bottled water example of Mr. Black was a good example. We don't know what percentage of that is in each of these mortgage-backed securities that the U.S. Treasury is looking at purchasing, is that correct? And that is part of the reason we have the problem in the economy, is nobody knows where it is, but nobody is willing to buy on the bet.

Mr. LINDSEY. That is correct. There is a great deal of uncertainty. You don't know which bottle contains the contamination, so there is a great deal of uncertainty in terms of buying any bottle.

Senator CRAPO. I guess what I am trying to get at is I agree with the Chairman's comment that—at least, I assume that you meant this—that whatever we do as a government, we should try to do so in a way so that the losses are incurred by those who engaged in the risky behavior rather than the taxpayer. And as I look at different options, and I have already talked myself out of my time, but as I look at different options that the Federal Treasury has right now, like I say, I was not convinced that the one we got on the table was the right option. The one that you suggested, Mr. Lindsey, I think was probably a better option, but still has the Federal Government stepping in and guaranteeing that loss, basically. Is there a way that we could, through some kind of an equity position, have the Federal taxpayer, instead of guaranteeing a loss or purchasing toxic assets, have the Federal Government step in and provide needed liquidity where it was needed but do so in a way that we took back a very strong equity position that put the shareholders or the prior bond holders and those who financed this risky behavior in the position of looking at that loss?

Mr. LINDSEY. You would inherently be doing that if you didn't buy it back at book, right? You should buy it back at a substantial discount from book if the lender is——

Senator CRAPO. But if you do that——

Mr. LINDSEY [continuing]. The cause of the loss.

Senator CRAPO. If you do that, don't you defeat the very purpose of trying to put liquidity into the system?

Mr. LINDSEY. No, because they are two different things. They are credit and liquidity. There are credit losses—they are certainly related, but they are not the same thing, and I think that if Treasury had it to do over again, they would have done a number of the things they have done most recently that are more specifically addressed to liquidity——

Senator CRAPO. Such as the President's announcement today?

Mr. LINDSEY. Such as that, such as—there are things that we can do to restore the inter-bank lending very quickly that have very little loss exposure to the public that we are now putting into place. Some of us argued weeks ago that that should be a priority. I mean, I am not blaming Treasury. They are in a crisis.

Senator CRAPO. Certainly.

Mr. LINDSEY. But I think that would be their view, as well, now.

Senator CRAPO. Thank you, and Mr. Chairman, I know I am way over time, but could I allow Mr. Lindsey to answer that if he has an opportunity, and Mr. Dinallo?

Chairman HARKIN. Go ahead.

Mr. DINALLO. I was just going to say, I think that is what we did when we were involved in the AIG transaction. To a large extent, that is what we did. The Federal Government extended a fairly usurious loan to AIG to give them time to unwind the value in the insurance companies because of sort of the sins of the holding company and the hedge fund that was attached to AIG, and those have been kind of wiped away and equity is going to get, you know, not a happy day and the notes. But ultimately, the value of the policy holders is being saved. The value there is being saved through essentially a timing, sort of a temporization through the loan, and then the equity ownership, so that people of the country may get a lot of upside from what gets released in the insurance operating companies through those sales, but at least there is some participation in the upside, yes.

Senator CRAPO. That is my understanding, too.

Dr. Lindsey.

Mr. LINDSEY. Well, I think that in part, that it is probably late to try to do something that doesn't involve government funds here. One of the things, though, that I don't think has gotten a great deal of focus is that there is going to be a little bit of a feed-forward effect associated with this because under the Basel capital standards, banks were taking capital charges based on the historic performance of loans. Now, the historic performance of loans and their extensions of credit against those things are going to raise dramatically. They are going to have to hold more capital to offset that under the Basel capital standards. So you have a buildup of the need of more capital in the system.

Senator CRAPO. Thank you. Mr. Chairman, I am sorry to go on so far.

Chairman HARKIN. Good questions.

Senator Lincoln.

Senator LINCOLN. Thank you, Mr. Chairman. We all learn from those good questions.

I had several questions and I thought I would just throw them out and then maybe you all could answer whenever. Mr. Dinallo, I know that you mentioned Governor Patterson had announced that New York would take some steps to regulate the credit default swaps but also made it clear that Federal assistance was going to be necessary. Maybe you could at some point outline the Governor's plan that he is going to be taking and how you think that the Federal Government should respond.

Dr. Lindsey, you mentioned, as was talked about, the purchasing of those derivative contracts which have those mortgages underlying them and that the Treasury should take over ownership from defaulting mortgages and guarantee that original mortgage payment. I would just be interested, since it is something that you do advocate—I think it is a plan from a colleague of yours or at least somewhat like that—what you think the drawbacks of that proposal, what would be your cautions to the proposal that you recommend, and how long when you talk about—I think none of us, we are such a society of immediate gratification, we all want to just take a pill and all be better and it is going to take time for much of this to unravel and to figure out how we are going to right ourselves and whatever we invest in it, but allowing the market the time to right itself, as well. I would just be curious to know how much time you would think a proposal like that would take to implement.

And then, last, in the SEC Chairman Chris Cox's testimony before the Senate Banking Committee, his quote was that there is a regulatory hole that must be immediately addressed to avoid serious consequences. The $58 trillion notional market in credit default swaps, double the amount outstanding in 2006, is regulated by no one. Neither the SEC nor any regulator has authority over the CDS market, even to require minimal disclosure to the market. I know Mr. Cox, he has certainly been under tremendous scrutiny, as well, but he is the cop on the beat and when he says that we need someone on patrol, I mean, my question is, who is on patrol and is there anybody monitoring these?

You mentioned, Dr. Lindsey, that—at least I gathered from your comment that you didn't think that it was necessary to go back and review these instruments or these products and how they were devised. I can't help but remember watching "Dr. Zhivago" with my dad and his comment to me was, "If you don't understand history, you are doomed to repeat it," and how important it is for us to understand, if we are going to regulate, to better understand how these came about and where are the places where regulation makes sense, or transparency.

I mean, you are saying that the SEC has the ability to do some of that, but why didn't they? Who was not there? Why did they not get looked into? If the books—I mean, what are the procedures there that have to happen in order for some of those things to happen?

So I don't know. I mentioned Chairman Cox's comment because I know here we are having this hearing right here, and I certainly defer to Chairman Harkin in terms of what legislation may be coming around the bend, but we want to make sure from Congress's standpoint that we address all the concerns that are out there in the public, particularly for our constituency, and if the purpose of a credit default swap is to manage risk, which is what we are—I mean, it is an insurance in terms of risk, the CFTC has had a long history of policing risk management markets and that has been their responsibility. I don't know if you have an opinion as to whether or not that is an appropriate place or not to go. So those are my questions.

Mr. LINDSEY. Well, let me try to take some of them, anyway.

Senator LINCOLN. Sure.

Mr. LINDSEY. I would start with the fact that, of course, under the CEA, the CFTC has sole jurisdiction over OTC derivative contracts, and then under the 2000 Amendments to the CEA, there were specific exemptions that were granted which included, as I recall, specifically enumerating credit default swaps as one of those exemptions.

So in some part, I would argue, and being an ex-SEC person, I guess I would argue that it seems strange for the SEC to ask for jurisdiction over something that lies within the CFTC's jurisdictional authority. So indeed if there is a change of view associated with that, it would strike me that the CFTC might be the appropriate place to house that authority and that responsibility for oversight of the OTC derivative market.

In terms of the SEC looking, and what I think I was addressing at the time when I said that I don't think it makes very much sense to go back and look at models from three or 4 years ago and try to figure out how people priced and conducted the instruments at that point in time, that was not meant to say that if we think that there was accounting fraud, and I have no reason to believe that there was, that that shouldn't be investigated, and clearly the SEC has that jurisdiction and can go ahead and do that.

But remember, fraud is only something that you can discover afterwards. It is very difficult to discover it a priori and it is also extremely difficult to discover it contemporaneously. We don't have a regulatory system where SEC accounting staff are sitting in each and every reporting company, checking every line item associated with their accounting reports, and I don't think we want a system like that. So that would be my answer to those things.

In terms of the——

Senator LINCOLN. Of course, that is the same thing with the CFTC. I mean, they don't regulate over-the-counter trades as they are occurring. It is only after the fact.

Mr. LINDSEY. Exactly.

Senator LINCOLN. Right.

Mr. LINDSEY. But at the same time, of course, you can provide oversight and some form of prudential supervision for the companies that are engaged in that type of activity. I always come back to the fact that transparency, capital, and some way of mitigating the counterparty risk, which is the centralized clearing organization, really would have prevented or resolved many of the types of issues that we have seen. Now, we have a problem where we are trying to get ourselves out of a hole that we have dug over time. The proposal——

Senator LINCOLN. Well, the list of things that you just mentioned—so in essence, you are just saying that they should be bonded.

Mr. LINDSEY. Well, bonded is really a form of insurance and you are——

Senator LINCOLN. But that is what you are—I mean, if they have to establish capital and they have to be able to say, we can insure ourselves, we can——

Mr. LINDSEY. Well, it is——

Senator LINCOLN. We are credit worthy.

Mr. LINDSEY. It is what Mr. Dinallo has mentioned many times. An insurance company, of course, is making a bet that, if it is a life insurance company, that you are going to pay them more money than they are going to have to pay you before you die, if we want to call that a bet, which in many cases it is. What we have, of course, is an insurance company is required to keep capital associated with its diversified pool of bets against people's lives. So what you want is for these companies to have to hold capital that are associated with the transactions that they are engaged in, that are sufficient to protect in normal times the activity that they do.

I agree with Dr. Black that many of the uses of these products have to do with ways of reducing capital for organizations and to some extent decreasing the transparency in the market.

Senator LINCOLN. Do you have any suggestions of what we can do to help along the lines of what you intend to do in New York?

Mr. DINALLO. Yes. Let me—so, Senator, I will just lay out quickly what I think the Governor was saying and what the plan is. He announced that there was a section of the market, which I think we all agree is some kind of insurable interest and form of insurance. I think he showed a leadership in saying we are willing to take responsibility for this because someone has to step up and start talking about it and frame the dialog.

Subsequently, others said that they wanted to have other ways of doing it, whether it was Chairman Cox or now you hear stories that the Federal Reserve is sort of trying to drive some of the solutions we have talked about today. And the Governor subsequently said that he would be very interested in cooperating and trying to be part of a holistic solution. Nobody wants to segment the markets. It is not healthy for anyone, and I don't think that that was the intent. It was an intent to kind of get to where we are today, which is a really kind of robust, quick discussion about how to do it.

Bonding is a very kind of insightful way of saying it. You are 100 percent right. That is why there used to be laws against doing it in a completely unbonded or naked way, because—and I just want to underscore that these bucketshop laws we talk about, they are not about, like, the racetrack and stuff. This was about securities betting. I mean, they were written for what we are talking about today. It is not like a misapplied gambling law, you know. It happened before, almost exactly 100 years ago today. This is about as "Dr. Zhivago" as you are going to get.

Senator LINCOLN. Thank you.

Mr. DINALLO. You are welcome.

Senator LINCOLN. Thank you, Mr. Chairman.

Chairman HARKIN. All right. We will try to do one more round of 5 minutes each.

In 2002, Warren Buffett, I think we all know who he is, said and I quote, that derivatives are financial weapons of mass destruction. In fact, as early as 1981, Mr. Buffett had written about the dangers of derivatives.

So I want you each to comment on that statement, that they are financial weapons of mass destruction, if you agree or disagree. I guess if you agree, and if 80 to 90 percent of these credit default swaps are naked swaps, bets, why don't we just outlaw them? In my reading of the history of derivatives, these derivatives were conjured up not to meet a pressing need in the marketplace. They were conjured up to make money on money. And so if that is the case, and they have been touted as reducing risk, but as we have seen, they have actually increased the risk, the systemic risk to the whole society, so are they financial weapons of mass destruction? If so, why don't we just ban them?

Mr. Dinallo.

Mr. DINALLO. I think that in a completely unregulated, uncapitalized, opaque way, they are weapons of mass destruction. They are even actually a little more insidious than that because they have kind of a plague-like way about them that we are discovering, where no one knows which bottle has it in it. So you can't even necessarily come to quick solutions.

I don't believe that Mr. Buffett meant that all credit default swaps are inherently wrong. I think, in fact, some of his insurance businesses use them. There are appropriate uses for them. They are usually done with a lot of capital behind them when done correctly, or there may be areas which we have discussed today where they are almost necessary because there is no other way—let us be clear about one thing. If you talk to people who you would otherwise respect, I think, they will tell you there is no other way to—this is not a bad word—to short the bond market, to short the credit market.

In other words, we seem to be comfortable with us shorting the equity market. We seem less comfortable with naked shorting of the equity market, and it is still outlawed, I think, as of today. It used to be outlawed. But we have no way of shorting, in a sense, the bond or credit market. So I don't think there is anything wrong with that, but I think that you have to get down to what you are really doing and you have to have the appropriate mechanisms in place, like the ones we have discussed today.

Chairman HARKIN. Dr. Black.

Mr. BLACK. Well, it is——

Chairman HARKIN. My question again is, are they financial weapons of mass destruction and should we just ban them, ban the trading in them?

Mr. BLACK. The problem is the use of the word "they." There are many financial derivatives. Some of them are very useful. So prime mortgage-backed securities are a pretty useful thing. Futures and forwards the way farmers have used in many countries for hundreds of years are often constructive things. Interest——

Chairman HARKIN. That is hedging with a commodity that has to be delivered, Mr. Black. That is not a derivative.

Mr. BLACK. It is a derivative, but it is real hedging.

Chairman HARKIN. That is right.

Mr. BLACK. So it is not that it is a derivative, it is that it is—is it being used as a real hedge? Real hedges are often valuable and some of the real hedges, like an interest rate swap, is a derivative. These are all derivatives definitionally.

So I would ask the question slightly differently, and like Mr. Dinallo, I think that Mr. Buffett would say the same thing, that where you have real hedges that perform, where it is the dog wagging the tail instead of the tail wagging the dog, then there is a role for these things.

But if you take this analogy—you know, dogs and other big animals that run fast have tails for a good reason. They have got to change, and the tail is the counterbalance, right, and it serves a useful purpose when it works in coordination with the animal. What happens when the tail just starts swinging crazily? All kinds of volatility. The dog careens left, right, bounces into walls, falls over, and things like that. What happens if the tail actually drives the dog? It has got a consistent bias, right? The dog will spin in circles and you will get nowhere with your real economy.

And that is what can happen when derivatives become dominant and you lose sight of, hey, this is only supposed to be relevant to help the farmer who has a timing problem with cash and has a risk problem because the rain and the sun are quite—not under his or her control. Once we lose sight of that and the derivatives become the economy, become much bigger than the economy in many ways, then we will either wildly go crazy or we will run in circles and we will lose our productive edges. Our best and brightest people don't go into figuring out how to make good products.

Chairman HARKIN. Dr. Lindsey.

Mr. LINDSEY. So, in fact, while that is an oft-quoted remark by Mr. Buffett, what is not often followed on is the second part of what he said, which was that is if they are misappropriately used. That is not an exact quote, but basically he says that they are weapons of mass destruction if they are not used for appropriate reasons and appropriate purposes. That was not intended, I think on his part, to be a universal condemnation associated with OTC derivatives.

I would point out, of course, to bring it back to the futures markets, about 80 percent of the activity in futures markets is speculative activity, as that word is used. It is not farmers hedging. It is people that are trading futures to try to make money on futures. That is not a lot different than what we have been talking about with this particular market, and many futures contracts, as I am sure the Chairman knows, are indeed cash settled. Not everything is a commodity delivered against the contract.

Chairman HARKIN. Very few, as a matter of fact. Thank you very much.

Senator Lugar.

Senator LUGAR. Mr. Chairman, I will pass and wait for the next panel.

Chairman HARKIN. Okay, thank you.

Senator Crapo.

Senator CRAPO. Thank you very much, Mr. Chairman.

I would like to go back to this notion of transparency. We always say that word and I often wonder what we mean. Would each of you discuss just briefly—I think we have all agreed that we need more transparency. What does that mean? What should we do? And when I say "we," I don't mean just the Congress. If it requires a Congressional act, I would like you to tell me that. If it requires a regulatory act or something else, I would appreciate that, as well. But what do we need to do to make sure we have the appropriate transparency in this market?

Mr. Dinallo.

Mr. DINALLO. I think—I am not sure I can mechanically tell you how these exchanges should work, but I will tell you some of the earmarks that would help. You had until you come up with a solution sort of an unbridled assignability of these contracts, so you could sort of send it to anyone. So you might do a CDS with a counterparty, but eventually through assignment it would end up with an entirely different counterparty and that is kind of one of the issues I said about insidious. They end up in places that no one knew that they were going to end up in. It is very hard to track them down and it is very hard to know which is going to be the weak link in the chain, therefore, that will start the run of defaults.

The second thing is I think it is incredibly important, is we have no idea how much credit default swaps are written on any particular company, municipality, or credit issuer. I just think that is—of the $63 trillion, I can't tell you how much was written on AIG. I can tell you how much AIG wrote out of the Financial Products Division. I think it, like, about $460 billion or so. But I can't tell you, of the weapons of mass destruction, how many were pointed at AIG.

And the reason that is important is I believe—I wasn't in the Treasury's mind, but I assume that when they decided to help AIG in coordination with us and when we decided to help the bond insurers, like MBIA and Ambac, part of our fear of letting them file for bankruptcy or putting them into what is called rehabilitation on the State side, was that no one would know how much was going to be triggered in CDSs and what the worldwide cascading effects of that were going to be. That, to me, is just—of all the things to me, that is just one of the most unacceptable states that we are in, that regulators can't tell you what the implication is going to be of financial services failures.

Senator CRAPO. Mr. Black.

Mr. BLACK. The only thing worse than no data is bad data that you think is good data. It is the old line about it is not the things you don't know that cause really big crises, it is the things you do know that aren't true. So transparency has at least those two elements, not simply that there is reporting, but that there is reliable reporting.

And Warren Buffett has another famous line and that is directly relevant to our discussion, and that is that this isn't mark to model, this is mark to myth. So we need to know those models, and I would disagree a bit from my colleague and say we have strong reasons to believe that there is very substantial accounting fraud because we have massive incidents of fraud in the underlying, and it was not reflected in the value of those institutions. And that is why we have failure after failure.

I was a government witness for OFHEO in the Fannie Mae case against the former senior managers. There was real life accounting fraud at Fannie and Freddie, but those were investigated. In general, the Securities and Exchange Commission has not chosen recently to investigate these very well.

And again, please don't focus just on CDS.

Senator CRAPO. Certainly.

Mr. DINALLO. The collateralized debt obligations, the structured finance, are vastly more complex than credit default swaps. And while I have you, the thing called dynamic hedging, which is also done with financial derivatives, the Federal Reserve has long warned poses great systemic risk. This is not the perfect storm. Many more things could have hit at the same time and will unless we clean this up.

Senator CRAPO. That is very comforting to hear.

[Laughter.]

Mr. DINALLO. As I say, when my area is hot, it is bad for the world. I am a criminologist.

Senator CRAPO. Thank you.

Dr. Lindsey.

Mr. LINDSEY. Well, in part the disclosure, of course, has to reflect into the marketplace what the overall exposure is, and that exposure has to not only include the notional amount that a corporation is exposed to, but the diversification of that portfolio, how many counterparties they are exposed to, what future payments they might expect to have to make if they have written default protection, and what offsets there might be associated with that, along with an enumeration to some extent of the purposes and reasons that they have increased it.

That would at least give some insight into the overall growth. Part of the problem associated with credit default swaps, and indeed with some of these other products, is that there is not a clear idea of what the total overhang is in the market. You have no idea how many of these contracts are really written, and when you are writing contracts with the counterparties, what they have. So you might care a great deal about whether or not the person that is on the other side of the trade is highly indebted to a great number of these other trades.

Senator CRAPO. Thank you.

Mr. BLACK. Can I just say one thing that hasn't been mentioned? Unless you get a handle on the offshore stuff, you are never going to get this done. The tax havens also serve as ways of keeping opaque key information in financial derivatives, and unless we crack down on that, you will not get transparency.

Chairman HARKIN. Senator Lincoln.

Senator LINCOLN. Well, Mr. Chairman, that kind of leads into the last question I wanted to ask, and that is that when we talk about the weapons of mass destruction or whatever and should they be eliminated, the cat is kind of out of the bag here. I mean, if this is a product that the market has for whatever reasons, good, bad, or ugly, chosen to design or even patent in a way, I mean, the key for us is to look for a window to be able to see these products, because, I mean, I am assuming, and maybe I shouldn't, and you all should tell me differently if not, that this business could just as easily be practiced somewhere else and probably is. I mean, the ability to leverage all of this risk and to use it as a product is something that globally is going to happen anyway, is it not?

Mr. LINDSEY. Well, I think you made the point earlier, Senator, that we are now in a global economy——

Senator LINCOLN. Yes.

Mr. LINDSEY [continuing]. And there is nothing when it comes to financial products that cannot easily be moved elsewhere. At the same time, I am not advocating that we have what could end up being a race to the bottom in terms of regulatory oversight because you can always find a regulatory jurisdiction that is going to be less onerous than almost any scheme that we ever want to choose to have here in the United States.

We can, however, regulate those entities that do business in our markets and do business—are registered, reporting companies in our marketplaces, and we should. And we can have—accounting actually is on a consolidated basis. It does take into account what is done in the legal entity offshore. If, however, special purpose vehicles or other types of mechanisms are used to take something off a company's books, that is much harder to get to.

FASB has been trying to get closer and closer to having accurate reporting associated with these types of instruments and these types of vehicles. We still have a long way to go, but there is that delicate balance about how do you maintain a viable business activity that we can see and we can regulate from U.S. jurisdiction.

Senator LINCOLN. Well, it seems to me that we have to keep that in mind, that there are international markets where there is going to be a lot that goes on. But kind of what you are saying is that the biggest asset we have is the U.S. customer, because that is what everybody out there wants, isn't it?

Mr. LINDSEY. The biggest asset we have is the U.S. customer, and I would argue that another asset that we have is the U.S. regulatory system, which does tend to protect our investors. It doesn't work perfectly, but it works better than many other regulatory systems.

Senator LINCOLN. Which, in other words, people are going to see us hopefully, if we can come forward with the types of regulation and oversight and transparency that needs to happen, then we would be seen as the most dependable market and probably therefore the most likely market that people would want to come to.

Mr. LINDSEY. That is a strategy that we have relied on for the better part of a century, yes.

Mr. DINALLO. There are two points about that. Overseas is sometimes overrated if you are also worried about having your contracts enforced. So a lot of reasons that people do the business and demand that they often have New York, for instance, as their reference point for contract disputes is there is a certain certainty in dispute resolution, which is very valuable in this area.

The second is while you are correct they could be doing it offshore somewhere, as you confront this as a regulatory regime, I think what is going to happen, it is pretty clear to me, you are going to have the Fed or Reserve, other regulators, but there are only maybe two or three that would capture all the major banks in the world. Those are the ones that essentially are the counterparties for this. And if you tell them, in essence, you either put it on this exchange and get better capital treatment, but if you do it off-balance sheet, we are going to kill you on capital treatment, they are going to put it in the exchange, in part because they are going to have the guarantees, the things that we listed before, dispute resolution, a guaranty fund, event determination. They actually want that. It becomes much more efficient and cheaper to do it on the exchange than do it off-balance sheet, so to speak.

So I actually think there is a way to do this that will come about either through an exchange or some kind of a central counterparty set-up that will basically crush down most of the off-balance sheet transactions.

Senator LINCOLN. Thanks, Mr. Chairman.

Chairman HARKIN. Senator Crapo had a follow-up.

Senator CRAPO. Thank you. I just had one last question of Dr. Black in helping me get my head around this notion of what the asset value of these assets are in the country. You indicated that there was a 40 percent level of fraud in the subprime mortgage origination industry, is that correct?

Mr. BLACK. In subprime and alt-A, that is what the Fitch reviews showed of just the document review.

Senator CRAPO. So 40 percent of the mortgages that were originated in that area had some type of fraudulent activity?

Mr. BLACK. Obvious from simply reading the file. So I am saying the incidence is going to be higher than that.

Senator CRAPO. Okay. And the question I have is, is there a particular type of fraud that is most prevalent there, for example, over-valuation of the asset? Is that the fraud we are talking about, or are we talking about something else?

Mr. BLACK. Two are most common. One is inflating the appraisal and the second was often whether you were going to be owner-occupied.

Senator CRAPO. All right. Thank you very much.

Chairman HARKIN. I thank the panel very much. This has been very enlightening and very informative, somewhat provocative, and I really appreciate your input on this as we move ahead. Thank you all.

Mr. BLACK. Thank you.

Chairman HARKIN. If we could, we would like to call our second panel to the table, Mr. Ananda Radhakrishnan, who is Director of the Division of Clearing and Intermediary Oversight for the Commodity Futures Trading Commission; Mr. Terrence Duffy, Executive Chairman of the CME Group; Mr. Robert Pickel, Chief Executive Officer of the International Swaps and Derivatives Association; and Mr. Johnathan Short, General Counsel for the Intercontinental Exchange.

[Pause.]

Chairman HARKIN. Excuse me. Again, thank you very much for being here and thanks for your patience. As you can see, we had a lot of questions of that last panel and I am sure we are going to have a number for this panel, also. We will go in order and ask if you could summarize your statement in five to seven minutes. As I said before, your statements will be made a part of the record in their entirety and we will just go in the order I called.

First, we will call on Mr. Radhakrishnan—I hope I pronounced that correctly——

Mr. RADHAKRISHNAN. Yes, sir.

Chairman HARKIN.—Director of the Division of Clearing and Intermediary Oversight of the U.S. Commodity Futures Trading Commission.

STATEMENT OF ANANDA RADHAKRISHNAN, DIRECTOR, DIVISION OF CLEARING AND INTERMEDIARY OVERSIGHT, COMMODITY FUTURES TRADING COMMISSION

Mr. RADHAKRISHNAN. Thank you. Good morning, Mr. Chairman and distinguished members of the committee, and thank you for the invitation for me to discuss risk management for financial derivatives.

Mr. Chairman, as you and members of the committee here have spoken about in your opening statement, I think you have adequately framed the magnitude of the problem here, so I will confine my remarks to clearing and how clearing could prove to be a solution for some of the problems.

As Senator Lugar mentioned in his statement, the benefits of clearing is that it brings a central counterparty to both sides of the transaction. It guarantees the performance on an obligation to both the long and the short on the contract and, assuming that the clearinghouse does risk management properly, it brings a lot of benefits to derivatives.

As the committee is aware, the CFTC and the clearinghouses that it regulates have experience in clearing. Congress specifically gave us the authority to regulate clearinghouses in the CFMA and Congress gave us 14 core principles by which to oversee clearinghouses. Since 2000, we have seen a tremendous explosion in the number of contracts traded and listed and there has been no issue with clearing in the regulated markets, or the markets that we regulate.

I should mention that clearing, while it may prove to be a solution, is not a panacea to all evils because the issue is you are going to be clearing a whole bunch of transactions that are already out there, that are already in existence, and the issue is what kind of risk the clearinghouse is going to take. But clearing does bring benefits.

It brings, as I mentioned, the concentration of risk within one clearinghouse, or within one central counterparty. It brings the benefits of credit intermediation. It brings, certainly in the instance of clearinghouses regulated by us, it brings the benefit of twice-daily marking to market of all open positions and the settlements of losses and the resulting gains after the mark to market process is done. In fact, just yesterday, the Chicago Mercantile Exchange set a record for the amount of settlements that it moved, some 16 or 18—$18 billion, if I am not mistaken, and there was no hitch in that process.

The other thing that clearing will produce, or the other benefit that it could produce for the CDS market is as members of this committee are well aware, there is an issue with processing of these transactions. I have attended meetings at the New York Fed and I believe it is fair to say that nobody knows, not even the dealers know the amount of deals that are done with each other. It has been well documented that the New York Fed has been trying to get the dealers to come to a solution, but so far, none has been forthcoming. And this is an issue because if you don't know what your exposure is to each other, then you might get an unpleasant surprise when you eventually do find out what your exposure is.

So the benefits of a centralized clearinghouse is that it aids in the processing. In the futures industry, trades are processed within 30 seconds to a minute after which they are done and they are marked to market and settled at the end of the day.

As this committee is aware, under existing law, any derivatives clearing organization that is registered with the CFTC may clear any OTC derivative without further regulation. Pursuant to the CEA, the CFTC regulates DCOs and has the mandate to ensure that the financial integrity of transactions subject to the CEA and to avoid systemic risk. As I mentioned, we have 14 core principles by which we regulate DCOs.

Although DCOs do not need pre-approval from the CFTC to clear OTC derivatives, they do need advance approval if they wish to clear them in the customer segregated fund account. And, in fact, two DCOs have sought such approval from the CFTC, the New

York Mercantile Exchange in 2002 and the Chicago Mercantile Exchange in 2004, and in both instances, they did receive permission to co-mingle the funds associated with OTC derivatives with the funds associated with regulated futures contracts. In fact, we have seen that the amount of activity in the New York Mercantile Exchange, particularly in the clearing of energy derivatives, has risen quite substantially.

So in conclusion, members of the committee, the CFTC is committed to working with Congress and other financial regulators to move toward a solution that balances the need for responsible innovation in risk management solutions with protecting customers and managing counterparty risk. We thank you for your leadership and we look forward to participating fully with Congress, and I will be pleased to answer any questions that you may have. Thank you.

[The prepared statement of Mr. Radhakrishnan can be found on page 105 in the appendix.]

Chairman HARKIN. Thank you, Mr. Radhakrishnan.

I also have a statement from Commissioner Dunn, which I would insert in the record at this point, in support of your testimony.

[The prepared statement of Mr. Dunn can be found on page 118 in the appendix.]

Mr. RADHAKRISHNAN. Thank you.

Chairman HARKIN. Next, we will turn to Mr. Terrence Duffy, Executive Chairman of the CME Group. Mr. Duffy, welcome.

STATEMENT OF TERRENCE A. DUFFY, EXECUTIVE CHAIRMAN, CME GROUP, CHICAGO, ILLINOIS

Mr. DUFFY. Thank you, Chairman Harkin. I want to thank the members of the committee for having us today. You asked us to discuss the role of financial derivatives in the current financial crisis.

Financial derivatives cover a very broad array of product types. They include regulated futures contracts, collateralized obligations packaged as securities, including subprime mortgage obligations, and pure vanilla swaps that are unregulated versions of futures contracts.

Dozens of scholarly books and articles, as well as numerous class action and shareholder lawsuits, have attempted to answer your question. There seems to be a consensus that financial crisis is not a consequence of these instruments. It is linked to other factors, including distribution, collateralization, risk management, and trading and accounting for financial derivatives in the unregulated over-the-counter market.

Financial derivatives are tools for managing a firm's risks. Like all tools, they are neither beneficial nor harmful in themselves. The dire consequences have occurred in the OTC market, where there has been a lack of price transparency and a failure to properly measure and collateralize the risk of those instruments.

In stark contrast, trading in financial futures on regulated futures markets subject to the oversight of the Commodity Futures Trading Commission has been a net positive to the economy. It 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 this committee, the CFTC, and our industry can be justifiably proud.

When Lehman Brothers filed for bankruptcy last month, no futures customer lost a penny or suffered any interruption in their ability to trade. The massive proprietary positions of Lehman were liquidated or sold with no loss to the clearinghouse and no disruption to the market. This tells us that our system works in times of immense stress to the financial system.

Rather than looking back and trying to blame the unregulated market, we want to move forward. Let me explain how we are planning to help alleviate the risks to the economy current represented by the almost $600 trillion in outstanding notional value of OTC swaps.

We are in the process of offering a means to convert a significant portion of outstanding OTC interest rate swaps into regulated exchange traded futures. If the dealers and their customers accept this program, we expect that we will see standardization of these outstanding contracts. In addition, our clearing system will permit a multilateral netting process. This process will reduce the outstanding exposure on the instruments submitted to the clearing system by a factor of at least five. Coupled with this reduction, an appropriate mark to market and CME's margining expertise, and we are one step closer to coming to grips with this monster.

I particularly want to focus on our plans to play a role in the credit default swaps market. The CDS market has grown because credit derivatives permit allocation and realignment of credit risks. These instruments are tremendously valuable financial tools if used properly. However, the individual and systemic risk created by the rapid growth of such contracts has been poorly managed. This mismanagement is due to several factors: Lack of transparency pricing; lack of standardization contract terms; lack of multilateral netting; and lack of other advantages that flow from an integrated trading and central counterparty clearing system. By not having these in place, we have compounded risk and driven uncertainty in the CDS market, which has a gross exposure of about $55 trillion.

There is a solution. CME Group and Citadel Investment Group offer an effective method to monitor and collateralize risk on a current basis. It is estimated that portfolio compression by netting could shrink the $55 trillion exposure by a factor of ten. This will help reduce systemic risk and enhance certainty and fairness for all participants. We are working with the New York Federal Reserve, the CFTC, the SEC, to find a way to bring our solution to market quickly. We are encouraged that the regulators are highly motivated to contain the problem without delay. If they continue to work together, we feel that we will be able to eliminate the jurisdictional and regulatory uncertainties that might otherwise delay a solution.

I want to thank the committee for holding this hearing today and I look forward to answering your questions. Thank you, Mr. Chairman.

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

Chairman HARKIN. Mr. Duffy, thank you very much for that testimony and for being here.

Now we turn to Mr. Robert Pickel, Executive Director and CEO of the International Swaps and Derivatives Association. Mr. Pickel?

STATEMENT OF ROBERT PICKEL, CHIEF EXECUTIVE OFFICER, INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, INC., NEW YORK, NEW YORK

Mr. PICKEL. Senator Harkin and members of the committee, thank you for inviting ISDA to testify here today before the committee on the role of financial derivatives in the current financial crisis. ISDA, which represents participants in the privately negotiated derivatives industry, has over 830 member institutions from 56 countries. These members include most of the world's major institutions that deal in privately negotiated derivatives, which they use to manage their financial market risk inherent in their core economic activities. Among other types of documentation, ISDA produces definitions related to credit default swaps.

Credit derivatives serve multiple uses. A CDS can be used by the owner of a bond or loan to protect against the risk that a borrower won't make good on his promises. A CDS can also be used to hedge against other risks related to the potential default of a borrower, or CDS can be used to express a view about the health of a particular company or the market as a whole.

An investment fund might believe that there will be a large number of corporate bankruptcies in the future. In order to meet its fiduciary duty to invest its clients' money prudently, the fund might seek to generate returns during those bankruptcies by purchasing credit protection on one or more companies the fund believes are most likely to default.

Use of credit derivatives in this manner is similar to someone who sells wheat futures or buys put options on a security when they don't own the underlying wheat or shares. In each case, the idea is to maximize profits from a decline in prices. These are distinct from the securities such as asset-backed securities and collateralized debt obligations which the first panel talked about, and I would be happy to talk more about some of those distinctions.

The last several weeks have seen major credit events. Fannie Mae and Freddie Mac, two of the world's largest issuers of debt, were taken into government conservatorship. Shortly thereafter, Lehman Brothers, one of the largest OTC derivatives dealers, filed for bankruptcy. Then Washington Mutual likewise filed for bankruptcy protection.

All of the above companies were referenced under a large number of credit default swaps. They also tended to be counterparties to a large number of other types of derivatives trades. Despite defaults by these firms, the derivatives markets and in particular the CDS market has continued to function and remain liquid. This is true even while other parts of the credit markets have seized up and the equity markets have declined precipitously. Credit derivatives remain one of the few ways parties continue to manage risk and express a view on market trends.

Under U.S. law, the counterparties to a failed firm like Lehman Brothers are able to net out payments owing to and from the bankrupt counterparty without having to wait for a bankruptcy judge to resolve all claims. The failure of this large Wall Street firm has not caused the failure of its derivatives counterparties. That risk was contained because of the prudent structure of insolvency law in the U.S. and the apparently sensible collateral requirements of Lehman's counterparties.

As has occurred in previous credit events, ISDA held an auction to determine the cash price of the outstanding debt of Fannie, Freddie, and Lehman. These auctions were done according to well-established procedures and resulted in the successful settlement of the outstanding CDS trades on these three companies. As has occurred in the case of previous credit events, participants in the CDS business have seen their trades settled in an orderly fashion and according to swap participants' expectations.

There is little dispute that ill-advised mortgage lending coupled with improperly understood securities backed by those loans are the root cause of the present financial problems. It is also true, however, that recent market events clearly demonstrate that the regulatory structure for financial services has failed. Laws and regulations written in the 20th century need to be changed to account for 21st century markets and products.

An in-depth examination of the U.S. regulatory structure is warranted and is, in fact, instructed by the rescue bill passed recently by Congress. In this examination, it is ISDA's hope that the facts surrounding OTC derivatives and the role they continue to play in helping allocate risk and express a view on market activity will highlight the benefit of derivatives and of industry responsibility and widely applied good practices.

Thank you, Mr. Chairman, and I look forward to your questions.

[The prepared statement of Mr. Pickel can be found on page 100 in the appendix.]

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

Now we turn to Mr. Johnathan Short, Senior Vice President, Secretary, and General Counsel of the Intercontinental Exchange. Welcome, Mr. Short.

STATEMENT OF JOHNATHAN SHORT, GENERAL COUNSEL, INTERCONTINENTAL EXCHANGE, ATLANTA, GEORGIA

Mr. SHORT. Chairman Harkin, Members Lugar, Crapo, and Lincoln, thank you very much for the opportunity to be here today. ICE is very appreciative of the opportunity to appear before you to discuss the role of credit derivatives in the financial markets and discuss ICE's efforts, along with those of other market participants, to introduce transparency and risk intermediation into the OTC credit markets.

Like CME, ICE is proud to be working with the Federal Reserve Bank, the Commodity Futures Trading Commission, and the Securities and Exchange Commission on these efforts that are vital to the health of our financial markets and believe that we have important domain knowledge to bring to bear to this effort. As background, ICE operates three regulated futures exchanges, ICE Futures U.S., ICE Futures Europe, and ICE Futures Canada, together with three regulated clearinghouses.

ICE recently acquired Creditex Group in August of 2008. Founded in 1999, Creditex is a global market leader in the execution and processing of credit derivatives. In the last few years, Creditex has worked collaboratively with market participants on a number of important initiatives which directly address calls by regulators, most notably the Federal Reserve Bank of New York, for improved operational efficiency and heightened transparency regarding risk exposures in the credit derivatives market.

In 2005, Creditex helped to develop the ISDA cash settlement auctions, which are the market standard for credit derivative settlement, and have long been used—or, excuse me, have been used in recent weeks to allow orderly settlement of CDS contracts, referencing among others Fannie Mae, Freddie Mac, and Lehman Brothers. Creditex has also worked collaboratively with the industry participants to launch a platform to allow efficient compression of offsetting CDS portfolios of major dealers. The platform reduces operational risk and provides capital efficiency.

But to be clear, more must be done. While credit derivatives serve an important role in the broader financial markets, improving the market structure pursuant to which credit derivatives are traded is essential, and it candidly was an opportunity that ICE recognized at the time it completed its acquisition of Creditex in August.

Presently, the credit markets operate very similar to the way that energy markets worked earlier in this decade. Most transactions are executed bilaterally through brokerage firms. This is neither a transparent nor efficient way for a market to operate. Critically, the bilateral nature of the market leaves participants exposed to counterparty risk. In times of great financial distress, like at the present, this risk can have systemic implications. When financial counterparties do not trust each other, they then stop lending to one another and the credit markets freeze. In addition, the failure of a large counterparty can spread risk within the markets, especially where the market is opaque and the true extent of risk is not known.

The question, I think, that is before us today is how to bring appropriate transparency to the credit derivatives markets as well as how to appropriately mitigate counterparty credit risk. ICE believes that the mutual goals of transparency and mitigation of counterparty credit risk and systemic risk can be achieved through the introduction of clearing and the appropriate reporting of positions and obligations to regulators, a solution that was mentioned in the introductory remarks of Senator Lugar, as suggested by the Acting Chair of the CFTC, Walt Lukken.

ICE's proposed solution is a—we have announced an agreement in principle with the Clearing Corporation, major market participants, Market, and Risk Metrics to introduce a central counterparty clearing system to address the credit derivatives problem. To clear credit default swaps, ICE will form a limited purpose bank, ICE U.S. Trust, which will be a New York trust company that will be a member of the Federal Reserve System and therefore will be subject to regulatory and supervisory requirements of Federal Reserve System as well as the New York Banking Department.

ICE U.S. Trust will offer its clearing services to its membership, and membership will be open to market participants that meet the clearinghouse's financial criteria. Third parties who are unable to meet these financial criteria, however, will be able to trade through existing members of the clearinghouse.

ICE U.S. Trust will review each member's financial standing, operational capabilities, systems and controls, and size and nature and sophistication of its business in order to meet comprehensive risk management standards with respect to the operation of the clearinghouse. In addition, ICE will make available its T-Zero trade processing system to facilitate same-day trade matching and processing.

Finally, a word about regulation. Appropriate regulation of credit derivatives is of utmost importance to the financial system. Presently, the credit derivatives market is largely exempt from regulation by the Commodity Futures Trading Commission and the Securities and Exchange Commission. As recent events demonstrate, the credit markets are intricately tied to the banking system, with many credit derivative market participants being banks that are subject to regulation by the Federal Reserve. Given the central role that the Federal Reserve has played in addressing both the current credit crisis and issues related to credit markets in general, ICE proactively sought to ensure that its clearing model would be subject to direct regulation by the Federal Reserve System.

ICE understands that Congress may choose to enact additional financial market reforms, including taking steps to broadly reform the financial regulatory system as a whole. ICE would stand ready to work with all appropriate regulators in this effort.

Thank you very much and I look forward to answering your questions.

[The prepared statement of Mr. Short can be found on page 110 in the appendix.]

Chairman HARKIN. Thank you very much, Mr. Short. I thank all of the panel.

Well, it seems this is the second question I asked when I first started and that is just this. If derivatives are a necessary part of the functioning of our system—I am still not convinced they are, but if they are, then should they not be forced to be traded on an exchange, on an exchange where, as you point out, Mr. Duffy, you have to clear it every day, where you have requirements twice a day, call requirements, where it is transparent. The problem with over-the-counter derivatives now is we just don't know how many are out there. We don't know what they are, who is trading them, what their values are. They are about as opaque as you can get, and look at what they are doing to our system.

So my question is, should we not as Congress mandate that all of these derivatives have to be traded on a regulated exchange? I didn't say a clearinghouse. I perceive there is a little bit of a difference between clearing and exchange. Maybe you are using those terms interchangeably; I don't know. But I mean on a regulated exchange. Should they be? Should all these derivatives be forced to be traded on a regulated exchange?

Mr. Radhakrishnan.

Mr. RADHAKRISHNAN. Thank you for that question, Mr. Chairman. I guess the answer to that is something that you are exploring and other policymakers will be exploring. Certainly, our experience has suggested that the trading of products on a regulated exchange and the attendant clearing, because under the scheme in the Commodity Exchange Act, any transaction that is traded on a designated contract market has to be cleared by a registered DCO, registered with us, and that we have found enhances price transparency, liquidity, and order processing, and you have the benefit of a centralized counterparty.

Chairman HARKIN. Okay.

Mr. RADHAKRISHNAN. However, on the other hand, some would argue that by forcing it on an exchange, you lose the benefits of customized transactions because the issue is, can an exchange think about all of the contracts that people need? And so that is the tradeoff that you have.

Chairman HARKIN. Okay, Mr. Duffy.

Mr. DUFFY. Well, obviously, Mr. Chairman, we have been on record for many years in this town talking about the model that the CME Group provides, and that is a transparent, essentially limited order book, and essentially cleared marketplace in a regulated platform, and we think that is the model that suits these products quite well.

My colleague from the CFTC brings up an interesting point about some of these customized products and how they may not fit a standardized exchange-listed product for central clearing. In our proposal on credit default swaps, in our initiative with Citadel, we have looked at this hugely outstanding market of all these CDSs, and obviously there are some of them that you would not want to clear. They are just completely things you do not want to have any part of. But we have also come up with a formula on a risk management which we have done a very good job over the last 150 years of risk managing, making certain that a customer has never lost a penny at the CME Group due to a default of one of our clearing member firms. We hold that very sacred. So we have come up with some formulas on how to list these products for trade and clearing. So we think we can eliminate some of that risk.

So I do agree that there are some customized products, but some of those customized products may need to go away.

Chairman HARKIN. I would like to get into that with you, too, but I want to finish the rest of this question on should they be, all these derivatives be forced to trade on a regulated exchange.

Mr. Pickel.

Mr. PICKEL. Mr. Chairman, I think that if we go back to 2000 with the Commodity Futures Modernization Act, there were several things in there that I think are still very much the correct policy. There was legal certainty for OTC contracts, which include creditors which existed at the time. There was regulatory relief for the exchanges and allowed them to thrive over the last seven or 8 years, as we have seen. And also this structure for a clearing, the derivatives clearing organizations which Mr. Radhakrishnan mentioned, and I think those are all very positive steps in the overall structure.

I think that the point that there is a role for exchange traded in the more standardized products is certainly the case. One thing I would note with credit default swaps is in the OTC space, there has been a greater standardization, I think, in the terms and the trading of some of these things. For instance, quarterly payment dates as opposed to more idiosyncratic payment dates that are tied to underlying debt. So quarterly payment dates. Those types of standardization steps have already occurred in the OTC space, which is one reason I think the exchange-traded product has not developed as a matter of market demand. But I think we will see that develop over time.

I think the steps toward clearing are ones that are very important and ones that the industry is very committed to following. But in all those situations where clearing applies, as I understand the proposals that are being discussed at the New York Fed, it would still rely on the definitions of, for instance, the ISDA and the OTC market have put in place, and in many cases the settlement process to be utilized last week with Lehman, Fannie, and Freddie, the auction process. So there will be a definite connection between any exchange-traded product and these OTC products.

Chairman HARKIN. Mr. Short.

Mr. SHORT. Chairman, I think the issue is really about credit intermediation through a central counterparty and transparency. I am not convinced that a product has to be traded on an exchange to achieve those two goals. Certainly, central counterparty and clearinghouse intermediation is a part of the exchange model, but there are portions of ICE's business as well as Mr. Duffy's business that actually process OTC transactions which are immediately submitted to a central counterparty for clearing and risk intermediation and appropriate reporting. So I don't think it is a requirement that something be executed on an exchange.

Chairman HARKIN. If Congress were to require that all financial derivatives trade on regulated exchanges, Mr. Duffy, would CME be able to handle that, or Mr. Short, would ICE be able to handle that?

Mr. DUFFY. Well, we are—I think you stated in your remarks at the outset that CME Group cleared over 2.2 billion contracts last year and we have capacity always twofold of what we did on a prior year. So we feel very comfortable that we could take on this credit default swaps market. Now, again, we think we could bring it down in size. In fact, there is a five and ten respectively between interest rate swaps and credit default swaps. But again, we are very comfortable that we have the capabilities to list this product for trade and to clear it.

Chairman HARKIN. Mr. Short.

Mr. SHORT. ICE runs a regulated designated contract market, ICE Futures U.S., so we would have the ability to transact or have CDS transacted in a regulated exchange environment. I think the way ICE has come at the problem, looking at the real systemic issue out there, is to try to find a clearing solution that immediately addresses the market as it exists today, and given the existence of making clearing available to OTC products. We think the most important thing to do is to get a clearing solution in place today, get transparency in place today, and then at a later date, if Congress decides that everything should be traded on an exchange, we would obviously address it at that point.

Mr. RADHAKRISHNAN. Mr. Chairman, if I may, if Congress does mandate that all derivatives be traded on an exchange, especially an exchange regulated by the CFTC, then I think it is clear that the CFTC would need a significant amount of resources, more than what we have right now.

Chairman HARKIN. You would also need a change in the law, too.

Mr. RADHAKRISHNAN. That is correct, sir.

Chairman HARKIN. Thank you very much.

Senator Lugar.

Senator LUGAR. I want to raise a question with this panel which has not come up, I think, in your testimony, at least to a great extent. We touched upon it in the last round of questioning. What happens, as is often testified in panels like this, that if a great deal more regulation occurs which is uncomfortable to any of the parties that are now dealing, for better or for worse, in all of this, that there are other markets to move to? After all, the United States does not have a unilateral function in this respect. Some would say the London market is much larger. Others would find more exotic situations.

And given electronic transfer, international banking systems generally, why are we likely to see reform in our situation here inhibit anybody from moving off, if they have nefarious purposes, or at least maybe they feel they are perfectly legitimate purposes, if they like markets without limits and they can find them somewhere else? And if they do this, what are the ramifications, then, not only for the volume of business being done on our markets, but getting back to the gist of our discussion today, some degree of regulation of difficult practices? Does anyone have a thought about the international market predicament?

Mr. PICKEL. Senator Lugar, if I might start off, I am sure the others will have some views, as well, I think that is one of the reasons we need comprehensive solutions to the regulatory structure. I alluded to that in my oral remarks, went into a little more detail in my written remarks, that if we are rethinking the landscape, and I think one lesson we know we have learned is we need to rethink the landscape, that is done in a comprehensive way. If we just focus on pushing down on one product area, it will very likely move elsewhere.

For instance, on this whole insurance point, which I know was a lot of discussion in the first panel, it is very clear under U.K. law that these products are not insurance, would not be treated as insurance, and therefore they will continue to trade there and I am sure trading will increase as a result.

I would also suggest that comprehensive international solutions, as we have seen with the coordination just over the last few weeks, but also in existing forums like the Basel Committee of Bank Supervisors and also IOSCO, the securities commissioners, and other international forums, that there be a comprehensive solution discussed, and certainly on the capital level, which I think will be a significant part of the discussion going forward, the appropriate capital levels and how certain products are treated for capital purposes, that will proceed as it currently is at the international level.

Senator LUGAR. Let me just pick up that point, because many people have commented, say, in the last 72 hours, that the coming together of the banking leadership of major countries has been unprecedented and very constructive. This leaps ahead of where we are in this conference today, but should this not be an objective of our banking system, those representing the United States in these interparty talks, to get involved in what we are talking about now so that, in fact, we do not undercut each other, and at least in the major systems, this may in the past have been perfectly fair game in competitive situations. But right now, we are understanding that this degree of competition may be invidious to all of our interests. Is there likely to be any reception with the banking leadership of other countries to the kinds of reforms we are talking about today?

Mr. PICKEL. I think just quickly, and then I will turn it to Terry. I know he wants to say something. These are global products. They are traded globally. The parties who are most active in these markets are global parties. They are active in many different jurisdictions. And therefore, I think that whatever the solutions may be, they do need to be discussed here in Congress but also at that international level, as well.

Senator LUGAR. Mr. Duffy, did you have a comment?

Mr. DUFFY. I just have a couple of comments, sir. You know, I think it is imperative that we coordinate with the U.K. and with Europe like you are discussing. Obviously, I don't have any feel for how that is going other than what I read in the papers, also. But there needs to be a value-add and I think that is exactly what the CME Group has been trying to do for a number of years, is have the value add. And when you can bring transparent markets and open markets so everybody can see them and see what the prices is, that is a value add.

And I think also, when you are seeing unprecedented counterparty failures by some of the biggest people in the world, it is bringing people to look at the model of a flight to quality. I mean, we saw what the Treasury market did after this recent downturn and people's just a flight to quality to get their money converted to cash or government securities. So we have been battling this battle for a lot of years. We think we are going to continue to fight it. But I think it is really imperative of the governments to come together at the banking, like they did over the weekend, and continue those talks.

Senator LUGAR. It is interesting that as markets opened up at different hours in the last couple of days, the international cooperation has given heart to investors all over the world, although some may say, after all, if you invest in the United States, you may as well be investing in London and vice-versa. These markets are not simply local.

Let me just ask for a moment, Mr. Short, you mentioned in your testimony, and this sounds very constructive, that ICE has already announced an agreement to work with various entities, and as you proceed then through the testimony, you really go into some detail as to some things that ICE can do now, which I thought was very important. I gather that you don't need further legislation and that all the reforms that you are suggesting in this testimony are within your purview if you have got the cooperation of the others that you feel you have. Is that true, or is this over-reading action that you are taking now and we will see being unveiled in weeks and months ahead?

Mr. SHORT. I think that is accurate. I think we do have what we need to put a solution in place, working constructively with the Fed and the New York Banking Department.

Just circling back on one point you made about the global nature of this business. I do think one of the silver linings that may come out of this is the enhanced international regulatory dialog and that is something that ICE in particular is very familiar with because we operate regulated markets not only here in the United States, but in the United Kingdom, subject to Financial Services Authority jurisdiction.

One of the things that we intend to do parallel with this process here in the United States of establishing ICE U.S. Trust is to offer the same central counterparty credit intermediation for credit default swaps in the United Kingdom, in Europe through our U.K. clearinghouse, and as the cornerstone of that effort, we would ensure that there was adequate regulatory dialog between each of the domestic regulators to get a full picture of the market, because as you correctly note, this is a global market and just seeing one piece of the puzzle doesn't necessarily give you the entire picture.

Senator LUGAR. Thank you all very much. I just find it to be very heartening at the moment that the Chairman has called this meeting, especially timely given the dialog of the last 72 hours in which, as you state, for the first time there may be some movement with regard to other countries working with us and all together in a way we could not have thought of before. When we have had hearings before, we always had to have a cautionary look over the shoulder as somebody who didn't really see a problem in their country or somewhere else. But seeing the common worldwide dilemma we have, I think the agenda may be changing and this is a good opportunity for reforms here, but likewise working with others to make certain this is a more universal product.

Thank you, Mr. Chairman.

Chairman HARKIN. Thank you.

Senator Crapo.

Senator CRAPO. Thank you very much, Mr. Chairman.

I want to get into the clearing counterparty issue with the panel. But before I do so, Mr. Pickel, I have a question for you. In the previous panel, we had quite a discussion about naked credit default swaps, and as we were having that discussion, which I found to be a very interesting discussion, I was thinking about ISDA and wondering if ISDA had a perspective on the whole issue of the different types of credit default swaps and the approaches that we may take to this issue. Do you have a take on the previous discussion we had?

Mr. PICKEL. Well, I think as Superintendent Dinallo acknowledged, there is a range of transactions that, in his sense, sartorial or covered or whatever, might apply to holding the bonds, having some other relationship, taking a view on the credit. And so where in the spectrum, whatever your notion of what naked shorting may be, it is not clear to me how you would make that distinction.

And one of the fundamental facts about markets that work effectively and have sufficient liquidity is that you do have people engaging in that market who don't necessarily have a direct interest, but they are willing to take a view, they are willing to provide some liquidity to the market, and I think that that is a very important part of all well-functioning markets and that is true of the credit default swap market, as well.

One other thing to keep in mind is that in any credit default swap, again, a bilateral contract, there is a Party S who is shorting that credit who is taking a view that that credit may deteriorate over time, but there is also the other party who is taking the long position. They are taking the view that at that price, they are willing to take exposure to that underlying credit. So it is a very dynamic relationship there that the whole over-the-counter or privately negotiated derivatives business is based on.

Senator CRAPO. Well, thank you. This is an incredibly complex issue, as I am sure everybody will acknowledge, and I am sure that our committee will need to have a lot more input from all the parties on how to understand this as we move forward with possible Federal regulation.

With regard to the clearing system that we have all been talking about, I think several, if not all of the members of this panel have probably been involved with the discussions that have been going on with the Federal Reserve about trying to develop some kind of a clearing system. I note that we have CME and we have ICE and others, we have the New York Stock Exchange and others who are all interested in performing this function.

So my first question to the panel—this is probably for Mr. Duffy and Mr. Short, but anybody can jump in here—is, is there any reason why there need only be one clearing counterparty or could all of you do what you are talking about, and others jump in, as well. Are there benefits or disadvantages to a multi-clearing party approach?

Mr. Duffy.

Mr. DUFFY. I always believe there is room for competition, so we don't have issue with that. Again, the CME has had a great history in this business, longer than anybody else, I believe, in the business of clearing products. So we feel, again, Senator, very comfortable and confident that the Federal Reserve and other regulators will look at us and say that we are a competent model to do this type of business. So as far as the competition goes, I would be very surprised if the U.S. Government was to try to anoint anybody a winner in clearing of any type of products when there are multiple parties to do so. So I look at this and say that it is competition like we have on all our products and we will compete for this business.

Senator CRAPO. Thank you.

Mr. Short.

Mr. SHORT. I share Mr. Duffy's view on that. I wouldn't see the Fed anointing a single entity to do this, and I think there are definitely some benefits from competition in terms of getting the clearing solution right. Competition ultimately drives innovation, and I think it's important not to lose sight of that.

Senator CRAPO. Well, thank you. I would like to just ask a general question of the entire panel and have anybody who wants to jump in here, but again, we use the terms clearing counterparty or a clearing system or whatever. What exactly are we talking about there when we talk about establishing a clearing counterparty or a clearing system?

Mr. Duffy.

Mr. DUFFY. I will be happy to. What we are talking about is obviously the exchange is acting as the buyer for every seller, the seller for every buyer, doing a mark to market twice daily, doing the pays and collects twice daily. So that is essentially what we do, and we risk manage each and every one of these products throughout the day. So if we see the product moving in a certain direction, we have the ability to call for margin from the people who are on the one side of the trade and they have up to—well, as less time as an hour to go ahead and facilitate that money so we can pay the other side of the transaction.

Senator CRAPO. Let me interrupt here——

Mr. DUFFY. We truly act as a clearing—and we hold $1.6 billion in guaranteed funds and hold an additional close to $100 billion in funds to protect all these positions.

Senator CRAPO. Let me interrupt you right there and ask, in your testimony, you indicated that if you were to do this, you thought you could reduce the exposure, and I assume this is in the credit default swap market, by a factor of ten.

Mr. DUFFY. Yes.

Senator CRAPO. What are you talking about there?

Mr. DUFFY. We would net them down. Right now, these exposures, as they talk about them in the notional value of $55 trillion or $600 trillion in the total marketplace, that is taking account for both sides of the market. We would take them into the clearinghouse and net all these positions out, and so you would net out and compress down the risk associated with them.

Senator CRAPO. So the net risk would be dramatically reduced——

Mr. DUFFY. Reduced by ten is the way we figure it right now, yes, sir.

Senator CRAPO. All right. Thank you. Does anybody else want to jump in on that? Mr. Short?

Mr. SHORT. We would have a similar model involving a central counterparty with comprehensive risk management systems and margining of positions. I guess in distinction from what Mr. Duffy described, we would be a New York trust company, a regulated bank, special purpose bank to which people or major market participants would become members and those who were not members would trade through members. But from a risk management standpoint, it would be very similar to what Mr. Duffy described.

I think one distinction would be this would be a special purpose clearing entity solely for credit default swaps. We understand there is some concern about the idea of mingling credit default swap risk with other risks that broader markets serve. So this would be a special purpose entity that solely clears CDS and credit exposures. It wouldn't touch agriculture. It wouldn't touch other futures or exposures.

Senator CRAPO. Thank you. Let me just ask one last quick question. In a July hearing that we held, and actually this was in the Banking Committee, I asked one of the witnesses whether there was a danger in centralizing the credit risk in one institution and whether that could actually increase systemic risk. That kind of gets back to my first question as to whether we should have one clearing system or not. But is there a danger if we were to centralize all of this risk too much in terms of creating a systemic risk?

Mr. DUFFY. I will just speak on behalf of the CME Group. I don't believe so, Senator. I mean, you look at the products that we trade today. ICE has basically some exclusives on some of their products, one being the Russell 2000 futures contracts, so they are the only one that is able to trade that. They can manage that risk. The CME Group has exclusives on S&P 500 and Nasdaq and other products. So we have been able to manage that risk as one entity, so I don't see that as an issue.

Senator CRAPO. Mr. Pickel and Mr. Short?

Mr. PICKEL. Okay. I think that in our area, of course, that is all very decentralized. We have got all these bilateral relationships and parties should be managing those relationships. To the extent they haven't, that is something that they should improve in terms of their internal processes and risk management. But there are protections in place, including regular calls for collateral, movements of collateral even on a daily basis between counterparties.

In fact, a situation like AIG, what they had agreed to was not regular exchange of collateral for their positions, but provision of collateral only upon a downgrade. And so when they were downtraded, all of a sudden they had a significant liquidity requirement to post collateral for those trades. If, as we think is the better practice, and I think banking supervisors encourage their banks to do this, they have regular collateral exchanging in the relationship. If you see your position declining, you have that additional discipline as well as the credit protection of collateral that you have introduced to that relationship.

So certainly the clearinghouses have a good record of managing that risk and being able to take on significant risk and managing it effectively, but there is also a great benefit to having this diffuse nature of managing risk on a bilateral basis.

Senator CRAPO. Thank you. My time is up.

Chairman HARKIN. Thank you.

Senator Lincoln.

Senator LINCOLN. Thank you, Mr. Chairman. This is a lot. I am getting it all down here.

Mr. Radhakrishnan, just so I understood what you said earlier, you did say that the CFTC felt like it definitely had the Congressional authority to establish a clearinghouse for derivatives, is that correct?

Mr. RADHAKRISHNAN. Yes, ma'am. The CFTC does have the authority to regulate a clearinghouse. Let us say Mr. Duffy's clearinghouse——

Senator LINCOLN. Right.

Mr. RADHAKRISHNAN [continuing]. Were to provide this solution. They have the authority to do it under the law and we have the right to regulate them in that activity.

Senator LINCOLN. Right. Was there ever any concern among regulators at CFTC that derivatives and those that were based on underlying mortgages could pose a threat to the stability of the market?

Mr. RADHAKRISHNAN. Not currently, because all of the products that are cleared by the DCOs that are regulated by us are either exchange-traded products——

Senator LINCOLN. Right.

Mr. RADHAKRISHNAN [continuing]. Or in the case of NYMEX, energy products, and in the case of the CME, interest rate and foreign exchange products. All of those products, OTC products which they clear, basically priced off a deep and liquid futures contract. In the case of the NYMEX OTC clearing initiative, the OTC products that they were clearing were priced off of the NYMEX natural gas contract. In the case of the CME initiative, they were priced off a deep and liquid contract—the Euro dollar contract and foreign currency contracts that the CME trades on its exchange.

Senator LINCOLN. So the regulators there at CFTC had no concerns about their oversight over the counterparty clearing, is that correct? I am trying to get the terminology correct.

Mr. RADHAKRISHNAN. Yes, ma'am. So far, we have no concerns with the clearinghouses that we regulate. We have a constant dialog with our clearinghouses——

Senator LINCOLN. Now, do you have that oversight over ICE?

Mr. RADHAKRISHNAN. We have oversight over ICE Clear U.S., which is a——

Senator LINCOLN. Did the CFTC ever use its special call authority to get any information from ICE with regard to derivative trading?

Mr. RADHAKRISHNAN. I believe it did with respect to trading ICE's exempt commercial market. We did use our special call authority to get information with respect to trading on that platform, which is not an exchange that we regulate.

Senator LINCOLN. That is——

Mr. RADHAKRISHNAN. It was not, until passage of the Farm Bill of 2008.

Senator LINCOLN. It is not. Okay. But, I mean, it works when you have the ability to gather that information or when you have transparency or that window into what you can look at. Then you have the authority to call under that?

Mr. RADHAKRISHNAN. Yes, ma'am.

Senator LINCOLN. I kind of asked a similar question—and there was one other question I actually had for Mr. Duffy. When CME—I mean, you can do swaps on your platform and you have that ability to clear what you need, and that is done in-house, is that correct?

Mr. DUFFY. Correct.

Senator LINCOLN. Okay. Now, what volume do you do on your platform compared to the volume that we have seen in terms of other swaps, in terms of these other—I mean, is it a compatible volume?

Mr. DUFFY. No, ma'am. We do not clear much in the way of OTC-type transactions today. What we do clear in OTC is the transaction with the New York Mercantile Exchange. When we acquired them, they have something called Clearport.

Senator LINCOLN. Right.

Mr. DUFFY. So that is an OTC platform that these contracts get submitted and then they get turned into futures contracts and then we clear them. It is a small part of our business.

Senator LINCOLN. So it is kind of apples to oranges?

Mr. DUFFY. It is in that respect. Otherwise, at the CME Group, the only other product that we have like that is ethanol. So the rest of our products are all standardized futures contracts that we clear. That is the 2.2 billion contracts that I mentioned earlier on.

Senator LINCOLN. Right.

Mr. DUFFY. Now, you have got to take the over-the-counter market and multiply that times five, six, seven times the size compared to the regulated exchange market on clearing. So we clear very, very small amounts of OTC——

Senator LINCOLN. In terms of——

Mr. DUFFY [continuing]. Of OTC products.

Senator LINCOLN. From the platform that you use with those OTCs. So being able to——

Mr. DUFFY. We have the ability to do so. We have the ability to do more and we are trying to get into the business.

Senator LINCOLN. The key would be if we could magnify that to the degree that we would need it for other instruments or other products that might be out there in terms of what you all do.

There was a question I had asked the first panel, but Mr. Radhakrishnan, I would like to ask you. Jurisdiction in the credit default swaps. These instruments can sometimes be based on an event, for example, a bankruptcy or another credit event. I was trying to explain it to my kids and it was very difficult, since we are talking about an event here, perhaps, as opposed to what that underlying debt instrument would be, such as a bond. If that is the case, would you say that there is no jurisdiction for these instruments to be regulated in any way as equity swaps, since there is not a—I mean, the equity is an event as opposed to—I don't even know if you can say equity is an event, but—they are not to be regulated as equity swaps, but there is some argument for their regulation. Who is going to be the regulator? Who do you think would be the most appropriate regulator, if there is one that exists, or do we need to create one?

Mr. RADHAKRISHNAN. I think right now, I think it is clear the CFTC has no jurisdiction over them, and I am not a securities law expert, but I believe that when Congress passed the CFMA, it made it clear that the Securities and Exchange Commission did not have any jurisdiction.

Senator LINCOLN. Right. I think that is correct.

Mr. RADHAKRISHNAN. I think Chairman Cox said so. As for who should be the appropriate regulator, ma'am, that is not a question that I think would be appropriate for me to answer. That is a question for the policymakers to answer. I think it would be appropriate for this committee and for other Members of Congress to listen to a whole wide variety of views as to who would be the most appropriate regulator, although the one thing I can say is that should Congress give this—I know I am sounding like a broken record, but if Congress should decide that a Federal regulator was to regulate this, then Congress should make sure that the regulator has sufficient funds to regulate it.

Senator LINCOLN. Well, that kind of leads to, I think, some of the other things that we have discussed in this committee in terms of the CFTC, and that is whether you have got the resources and the manpower to do all that needs to happen. Do you have any comments on that?

Mr. RADHAKRISHNAN. Ma'am, I think our budget requests, you know, we have made significant requests to Congress. We could always use money. I think you are asking the wrong person, because I could always use more money because I could hire more people, do more things. I leave it at that.

Senator LINCOLN. What about the requirements to meet the new farm bill responsibilities that we have put upon you all? I mean, is there enough? Do you have enough resources in terms of people and other resources to be able to meet those demands?

Mr. RADHAKRISHNAN. I am speaking for myself, ma'am. No, I do not.

Senator LINCOLN. Okay. Thanks, Mr. Chairman.

Chairman HARKIN. Thank you, Senator Lincoln.

Mr. Pickel, in preparing for the hearing and through my reading of everything that has gone on the last month or so, I came across an article that was in the New York Times, February 17 of 2008. Quote, "'The theme had been that derivatives are an instrument that helps diversify risk and stabilize risk taking,' said Henry Kaufman. 'My own view of that has always been highly questionable. Those instruments also encourage significant risk taking and looking at risk modestly rather than incisively,'" end quote.

"Officials at the International Swaps and Derivatives Association, a trade group, say they are confident that the market will stand up, even under stress. 'During the volatility we have seen in the last 8 months'"—this article was written in February of 2008—"'credit default swaps continue to trade unlike other parts of the credit market that have shut down,' said Robert G. Pickel, Chief Executive of the Association. 'Even if we have a series of credit events at the same time, we have the processes in place to enable the market to deliver.'"

Well, I don't know. Today in your testimony, you talked about the process of selling swaps protection, the Lehman Brothers case and bankruptcy. Then we have the scenario with AIG, where the derivatives transactions failed and the U.S. Government stepped in. So it seems to me that bankruptcy plus the U.S. Government stepping in is not the market delivering, and the market is not functioning. So I just wonder if you have a comment on that.

Mr. PICKEL. Well, Chairman Harkin, these are certainly very extraordinary and difficult times. I think that my remarks in February referred to the fact that we have, as an organization, working with our members who are the active market participants, have put in processes that anticipate the possibility that these events might occur and it has been very important for us to focus our initiatives to make sure that those processes are robust and can absorb these events, even though we hoped they would not occur. And in fact, over the last several weeks, the master agreement which we publish which allows counterparties to Lehman Brothers who have a range of derivatives transactions, not just CDS, they have been able to proceed to liquidate those positions and value those positions.

And then most prominently, as you refer to, with the bankruptcy of Lehman Brothers, with the credit events arising out of the Fannie and Freddie situation, which was a credit event under the definitions of our credit default swaps but because of the legislation passed this summer by Congress, it was not an event, a default under the master agreements, we went forward with an auction to value positions for Fannie and Freddie last week. So those are in the process of closing out.

And again, as far as AIG, the credit default swaps were effectively the conduit by which they took underlying risk principally to these collateralized debt obligations, many of which of them were in turn exposed to subprime exposure, which I think your chart very effectively demonstrated, that it is from that base of the mortgages packaged into ABS, further step typically of packaging into collateralized debt obligations. In that situation, people like Merrill Lynch, like Lehman Brothers, like other firms on Wall Street, purchase protection against a possible default on those collateralized debt obligations, a prudent step for them to take in terms of managing the risk and exposure that they had to those underlying risks.

Chairman HARKIN. Well, I come back again to this idea of whether or not, talking about the risk to the overall financial system, some $365 billion still has to be paid. So again, it still leaves—I don't know that I understand your answer completely, but it seems to me we still don't understand the overall risk to the overall financial system of this. You can talk about, well, AIG or Lehman Brothers here, but what does this mean to the overall system? People keep saying systemic risk. Well, the overall system and what this means.

Again, and I kind of loop back to this. Again, this is my own opinion, obviously, as you may have gleaned that I am not convinced that swaps and derivatives are—no matter what the category that they are in, are all good for our economy. So it comes back to this. I mean, again, financial systems have developed different products. In my reading of the history of some of these, it is not that there was a need out there for any of these. It is just that some financial geniuses conjured up collateralized mortgage obligations or collateralized debt obligations or credit default swaps. We never had credit default swaps before the early 1990's. I mean, my wife and I bought a house back in the 1970's. We were fine. We had a fixed-rate mortgage. So why didn't the world fall apart before the 1990's, before we had credit default swaps?

So I keep coming back to this, and I know some people say, well, that is not the whole problem. Well, maybe it is not the whole problem, but it is a big part of it right now. So maybe we ought to at least ban these naked credit default swaps, where it is just a bet between two companies. Or again, as I say, put them on a regulated exchange so that we know who you are, how much you are doing, we can set position limits, we can demand collateral, we can demand that you prove up on a daily basis. And I still haven't gotten an adequate answer on that one yet. It seems to me that could easily be done.

So again, I ask the question, Mr. Pickel, why can't we just say we are going to put all of these on a regulated exchange and you can't have them off of a regulated exchange? I mean, Mr. Short, they do a job of over-the-counter exchange. They do over-the-counter trades. We still have this problem of customized trades and stuff. I don't know how much there is of that, but it seems to me that if you want to do a customized trade, do it on the board. You say you can handle it.

So why shouldn't we do that, Mr. Pickel? I mean, why shouldn't we put these derivatives, these swaps, these derivatives on a regulated exchange and make them fully transparent, regulate them, position limits, everything else we do, because they are, and you can correct me if you think I am wrong, I don't mind that, but they are by their nature a kind of a futures contract.

Mr. PICKEL. Again, we have focused in this industry, the over-the-counter privately negotiated industry, on the ability to respond to customer requirements and customer needs, which are often quite diverse and don't fit into the structures of a highly standardized contract traded on a futures exchange, and that has been our focus over the years, is to provide the ability to develop a flexible, privately negotiated, custom-tailored transaction to deliver value to the customer, and, for instance, again, a very good example are these collateralized debt obligations, which again, keep in mind, those are securities. They are put together as securities. They are distributed as securities.

And what you had with a situation like Merrill Lynch was they found—and they are fairly customized securities and the exposures on the books of, say, a Merrill Lynch for the AAA-rated, highly rated tranches of those securities were building up and somebody at Merrill Lynch, wisely, I believe, said we can buy credit protection via credit default swaps to give us some element of protection against the exposure that is building up on our balance sheet. And so they went out into the market and they bought that protection from various entities who were willing to sell that protection. But it was very much customized to the particular securities, to the particular collateralized debt obligations that existed.

Mr. DUFFY. Senator, may I?

Chairman HARKIN. Yes, Mr. Duffy.

Mr. DUFFY. I would be remiss if I didn't take the opportunity, sir, to echo what you just said. We have been in these halls of Congress for many years saying what you just said. It has come time that we put these products on a regulated platform. It is time for people to see the transparent prices that an exchange provides. It is time for people to have a central clearing that brings the benefits to the economy and the users of this marketplace.

For customized contracts, we have come up, and I said earlier in my testimony that we have formulas to standardize these type of products so we can take them away from the customized way, standardize them, use our IMM dates, our International Monetary Market currency dates to do this type of business. This business belongs on an exchange if it is to continue, sir. And again, I think our model of 150 years with a zero default has been one of the few models in this country that can say that.

I believe that central clearing and a central limit order book, for the world to see what the price is being traded so we know if we want to buy, we know we want to sell. We have no idea how many of these outstanding credit default swaps are even out there because there is no value or price to them. How are we supposed to trade them? The only way to do that is in a central limit order book and in a clearinghouse, such as CME Group. Thank you, sir.

Chairman HARKIN. Thank you, Mr. Duffy.

Mr. Short.

Mr. SHORT. Chairman Harkin, I disagree with what Mr. Duffy said and agree in part with what Mr. Pickel said. I think the real issue here is about transparency and risk intermediation. I think one of the problems in thinking about putting something on an exchange is that it doesn't take into account the fact that there are some very legitimate needs for bespoke customized, tailored swap products. I think the problem is we didn't have appropriate transparency and proper risk systems to manage a lot of that exposure.

I think one of the risks of only saying you are only going to be able to eat vanilla ice cream is that it chokes off financial ingenuity. That is not to disregard the need for appropriate regulation and credit risk intermediation that a central counterparty would bring here. I think it is a more nuanced response. There certainly needs to be the proper level of regulation, but I don't think saying it has to be traded on an exchange is necessarily the answer because that means the exchange is the only party that determines what the product is, and by definition, exchange products are standardized. There is only one flavor.

Chairman HARKIN. Mr. Duffy, your response?

Mr. DUFFY. Senator Harkin, I am sorry, but we have clearly stated in our proposal we can take these customized products and make them standardized in our clearing processes, and I think that if our model was not one to emulate, then I quite surprised why ICE and others have decided to recapitalize the Clearing Corp and emulate the CME Group's model to do exactly what we are trying to do. So I am a little surprised by the answer. Thank you, sir.

Chairman HARKIN. I am, quite frankly, surprised by the answer, too. Mr. Short, do you want to respond?

Mr. SHORT. Sure. I would be happy to respond. I don't think we are necessarily emulating anyone's model and we are talking about bringing in positions that exist in the credit default swaps market and bring them into a clearinghouse. I think the question was whether that needs to be traded on an exchange. That was the answer or question I was addressing.

Chairman HARKIN. Thank you very much. I have another couple, but I have used up more than my share of time on this.

Senator Lugar.

Senator LUGAR. Thank you, Mr. Chairman.

Mr. Pickel, in your written testimony and somewhat in your oral testimony, you mentioned these customized responses to clients that you are able to handle, but you also indicated that beyond that, that is what normal persons like ourselves talk about insurance, people can express opinions about the market, and you legitimize that in your written testimony by saying, after all, if you are making some loans in a particular industry but you notice everybody else in the industry seems to be in trouble, your client and his party might be, too, at that point, so you place some bets against the industry. As a result, if one loan doesn't work out, you might pick it up as the whole thing crashes.

This is an interesting concept. It sort of gets back to the original chart that Senator Harkin had in which we talked about insurance for somebody who might buy it, but this is something beyond that and all these bets one way or another are not very transparent. No one is totaling up the score except ultimately people do.

Now, the point of my bringing all this to the attention is a rather striking and dramatic chart offered in Financial Times today, "Emerging Nations Hit by Growing Debt Fears." And here, essentially, they are using the swap markets, the credit default swaps, to engage the likelihood that various countries, in fact, will default. That is, the whole country will default on debt. You have the flags of the countries and Pakistan, according to the credit default swap situation, has a 90 percent chance the country will default on its debt. Argentina, 85 percent chance. Ukraine, 80 percent. Iceland, 80 percent, much in the news. Pakistan, at least 60 percent.

These are whole countries that are likely to default. They may or may not have ramifications on the United States. They will have ramifications on somebody. And the point of the article is that even as the ministers of the major banks are meeting here today, they are looking over their shoulder and wondering, for instance, in a country such as Iceland, where the government clearly is willing to try to measure up in every way it can, it may be incapable of doing so under these circumstances.

Now, I mentioned these countries specifically, although this could be a different forum, that we have a considerable stake in Pakistan in terms of our foreign policy. This is a crucial element quite outside our discussion of swaps today, and the fate of Pakistan may have a great deal to do about the fate of our military budget, our armed forces, a lot of people in the Middle East, as a matter of fact.

Likewise, Ukraine, much in the news. I visited with President Yushchenko just a few days after I visited with President Shakashvili in Georgia in August and I would say the eyes of the world are on Ukraine and its relations with Russia as well as with NATO and with various other things. And here you have in Financial Times an 80 percent chance that they are going to default on their basic obligations. With a divided government now and a snap election called, a crucial problem in terms of our foreign policy.

You could say much the same thing when you get down to Kazakhstan at only 60 percent, but here we have a question which our whole energy policy in the world revolves around will Kazakhstan diversify its energy portfolio, in essence, send more oil and natural gas south as opposed to north. It makes a huge difference in our economy, in the world economy.

So when we are talking about this in the international context, this is not only serious, but it has dimensions well beyond sort of the interest of the markets going up and down presently, and it is all being defined in this chart by the very thing we are talking about today, these swaps.

This is why, in my judgment, I sort of listened today dispassionately, but I have come to much more of a feeling this is an area that is going to have to have some controls and some very rigid management. I wish that, in fact, the theoreticians who say, let the market work, and so let all fly out and price finding and all the rest of it, and I think that is fascinating. But the repercussions of this are awesome on the other side.

Therefore, I am willing to take a chance that somehow, there are some of these small limitations to a market economics that we are going to have to find. So I am encouraged about what you are saying, Mr. Short. You can do some things now, even without Congress moving or the President or the changes of administrations, but now, because the whole point of this default article is the fear of the major banking systems right now that time is not on their side and that, as a matter of fact, there are going to be changes in governments, including our own. It takes time for new Treasury Secretaries to be confirmed and new Congresses to formulate.

If there is not somebody out here in your province that can actually move and work at this point, why then the great fear also expressed, not only in Financial Times but everywhere else, is whatever happened this weekend will not be soon enough and that the recession coming on, the unemployment, the continued defaults and so forth are going to lead to a new pessimism with regard to our publics, not just in this country but elsewhere. And more power to you. I hope, likewise, over at the CFTC people are paying attention to what you are saying today, because I think it is crucial, not a total step but an important one.

I just take my question period to offer this editorial, Mr. Chairman, because I think some of these points are important to make. Thank you.

Chairman HARKIN. Very good. Thank you, Senator Lugar.

Senator LUGAR. Would you like to reply, Mr. Pickel, since I quoted you in the paper.

Mr. PICKEL. Yes. Senator Lugar, thank you for giving me the opportunity to comment. I think it is a very interesting observation you have made and obviously I am well aware of your involvement in international relations over the years, including meeting with all those leaders around the world.

If we look back at some financial crises in the past, Asian currency crisis, Latin America crisis, other defaults by countries, those all took place in an era before credit default swaps. You weren't able to have any mechanism to hedge against a possible default. No one is saying that just because of those probabilities that it is a certainty.

And in fact, I am always very careful. When somebody calls me up and says, well, this company's credit default swaps are now trading at X amount, does that mean they are going into bankruptcy, and the answer is always it is further information for the marketplace to absorb. It is information that did not exist in the marketplace 10 years ago. So this is very important in terms of transparency and understanding what the exposures of underlying risk is. So by no means, it is a death sentence just because spreads go up a certain amount. It is information that is important to the market to obtain and absorb, and it is information that did not exist even eight or 10 years ago.

Senator LUGAR. Thank you.

Chairman HARKIN. Thanks.

Senator Crapo.

Senator CRAPO. Thank you very much, Mr. Chairman. I was going to try to return to the big picture in my question and Senator Lugar really expanded the vision there.

What I would like to do is—there are a lot of things I would like to get into with the panel. We can do it after the hearing in our dealings. Mr. Pickel has raised the broad question of the need for a completely new regulatory system, a 21st century regulatory system for financial markets, and I totally agree with that.

We have got the issue of customized derivatives that we have already gone into somewhat and the issue of naked short selling and just what that is and how we should approach all of these transactions. But I have only got just a few minutes left in my final question period and what I would like to do is to return to the first question of the hearing, or the purpose of the hearing, and ask each of you if you would just take a minute or so and try to be as succinct as you can, because I am going to ask all of you to respond, but what is the role of derivatives in the current credit crisis?

We have talked a lot in the context of that. Mr. Black in his testimony reminded us that mortgage-backed securities are a derivative, and we have got the collateralized debt obligations and we have got credit default swaps. I guess I really would like to focus my question on what is the role of mortgage-backed securities and collateralized debt obligations versus the role of credit default swaps in terms of the economic circumstances that we face today? Big picture.

Mr. Radhakrishnan.

Mr. RADHAKRISHNAN. Thank you for that question, Senator Crapo. I would prefer to answer your broader question——

Senator CRAPO. Sure.

Mr. RADHAKRISHNAN [continuing]. Because I am not that familiar with mortgage-backed securities and so on. But I think—my understanding has always been that the role of derivatives is to enable people to manage risk and to allow people who are willing to take on that risk to do so for a price. I think that has been the hallmark of trading on our markets and it has allowed people to expand their business.

But I think you have correctly asked the right question, which is if it doesn't do that but does something else, then does it serve a purpose, and I guess that is why we are here.

Senator CRAPO. Thank you very much.

Mr. Duffy.

Mr. DUFFY. Senator, you asked what the role of derivatives is and I think it is really important to distinguish the difference between derivatives, and there are two sets, obviously. There is the unregulated derivatives and then there is the regulated derivatives. Everything that we have heard today from a lot of the witnesses from the first panel, I think were referring to unregulated derivatives. I don't think anybody has made any mention about regulated derivatives and what role they play on a negative side. I think everyone understands that these products play a huge role in the risk management for corporations and businesses all throughout the world, and that is exactly what we have at the CME Group. We have all these different benchmark products.

So again, I think the role of regulated derivatives plays a crucial role in the economy here in the U.S. and I think it has benefited the taxpayers immensely—immensely—over the years by letting people compete for Treasuries on the regulated market, such as the Board of Trade, where the government can buy debt much cheaper. So there is a lot of positives to these listed products.

Senator CRAPO. Thank you.

Mr. Pickel.

Mr. PICKEL. Senator Crapo, to answer your specific question about mortgage-backed securities, CDOs, versus credit default swaps, as I have mentioned, the mortgage-backed securities, CDOs, are securities. They are packaged together as securities. They are distributed as securities. And typically from the bank's perspective, let us say, in going back to Chairman Harkin's chart, you have got those mortgages that are packaged into some kind of security. By putting those mortgages into a special purpose vehicle, the bank can basically get those off of its books into this SPV and often will arrange the underwriting of that and distribution of that.

With a credit default swap, and this is a critical difference, again, it is a bilateral contract. That bank is—first of all, they are typically maintaining—let us take an example of a borrower the bank has lent to. They are maintaining that relationship. Even if they have bought 100 percent protection in the credit default swap market, they still have the loan on the books. They have to maintain that relationship. Furthermore, they have paid money to buy that protection. It is not cost-free. They have got to pay money to the protection seller to get that protection. And furthermore, and this is very important, they are taking on credit exposure, additional credit exposure to the credit seller.

And so anybody who is using these credit default swaps needs to understand that very dynamic nature. It is quite different from taking the obligations and putting them into an SPV and distributing them in the securities networks.

Senator CRAPO. Thank you.

Mr. Short.

Mr. SHORT. I would concur in part with what Mr. Duffy said. I think—well, I guess I would first like to say I don't think I am qualified to address the broader question of the exact role that mortgage-backed securities and CDS have played in the current financial crisis. But I guess I would note that derivatives in and of themselves are not bad. They serve very useful purposes. They allow parties to shift risk and ultimately allow businesses to operate more efficiently. I mean, talking about mortgage-backed securities, they probably allowed Americans to get cheaper mortgages than they otherwise would have gotten.

I think the real issue here is when you have derivatives and you don't have appropriate transparency, you don't have appropriate controls, you don't have appropriate risk intermediation, that is where the problems really arise. But it is not the derivative itself. It is how they are regulated and ultimately overseen.

Senator CRAPO. Thank you. Thank you, Mr. Chairman.

Chairman HARKIN. Thank you.

Senator Lincoln.

Senator LINCOLN. Well, just one last question, Mr. Chairman.

Mr. Pickel, given the fact that there is an unprecedented price movement in commodities, it doesn't appear to be solely due to fundamentals in some cases. Do you think it is time that the Federal regulators have a clear window as opposed to just moving it to another exchange or whatever, I mean, just a clear window in terms of non-traditional speculative activity in the commodities market?

Mr. PICKEL. Well, that is certainly something that we have been engaged with this committee and other Members of Congress in the debates over the last several years and that led to some of the changes that were agreed to in the farm bill when the CFTC was reauthorized, and I think that the steps that were taken there were appropriate and reflected——

Senator LINCOLN. Do they need to go further?

Mr. PICKEL. Well, I think that—I do think, and we have had a lot of discussions about the fundamentals here, and I think a number of reports to Congress, comments from the President's Working Group, have indicated that the fundamentals continue to apply. Now, we are talking about supply and demand. We are talking about expectations about supply and demand. And since——

Senator LINCOLN. What about the OTC, the over-the-counter?

Mr. PICKEL. Well, the over-the-counter market will typically reference the prices that are obtained in the exchange-traded markets, so it is very much the exchange-traded world, whether it is the NYMEX platform that is owned now by the CME or the ICE platform, will provide the prices that are utilized in these transactions.

Senator LINCOLN. Mr. Radhakrishnan, you may not be able to answer this question, but I know that there was obviously the OTC in terms of commodities trading is very different than some of the regular commodities trading. But we saw in the spring a real spike in cotton prices, which the CFTC, I think, is investigating now. Do you have any knowledge of that or any feedback? I have a lot of growers that were left high and dry.

Mr. RADHAKRISHNAN. No, ma'am. But I know that my colleagues in the Market Oversight Division are always looking at price spikes to see if there is any manipulative activity involved. But——

Senator LINCOLN. It was pretty high and pretty quick, so I just was—but we will probably send a letter and see if there is anything that has come out of those investigations.

Mr. RADHAKRISHNAN. Yes, ma'am.

Senator LINCOLN. Thank you, Mr. Chairman. I appreciate the hearing today. It has been very helpful.

Chairman HARKIN. Thank you very much, Senator Lincoln.

I just have a couple of things I wanted to clear up here. Mr. Pickel, Mr. Dinallo in our first panel said that he estimated that 80 or 90 percent of credit default swaps are not customized risk. They are just those directional bets I had on the chart going back and forth. If that is the case, why can't those be standardized, if they are 80 to 90 percent? But maybe you don't agree with that figure because I don't know, either.

Mr. PICKEL. Well, I think even Superintendent Dinallo mentioned that 80 to 90 percent includes a whole range of transactions that might be entered into for different purposes, whether it be— I think his example of the——

Chairman HARKIN. But they were still directional bets. That 80 to 90 percent were——

Mr. PICKEL. They may have had—I thought what he commented was that they might reflect some underlying interest that might be other than a bond or a loan, but nevertheless some underlying exposure either to the particular credit or to the particular industry and that would be appropriate for that—the party that has that exposure to utilize these products in some way. So I think he was suggesting that those that are taking a view on credit, and that is what is happening here, is you have got people here who think that the price of a particular credit default swap for a particular name is relatively cheap or relatively expensive, and these could be investment managers.

In fact, it was mentioned before, the famous quote from Mr. Buffett, but also acknowledged the fact that he has actually—his company is a very active user of credit default swaps, and I think that he is looking at those as investment opportunities for return to better serve his shareholders. So I think he is very much motivated by that.

Now, keep in mind he is a very savvy investor. He understands these products. The people who work for him understand these products. So they engage in these in a prudent way utilizing collateral, making sure that they have done sufficient credit checks of their counterparties. All those protections are critical in the OTC world for these products, whether you have got the underlying exposure or whether you are taking a view on where credit may move over time.

Chairman HARKIN. Thank you.

Mr. Duffy.

Mr. DUFFY. I disagree just a little bit. I know there are some— on the 80 to 90 percent, we are not quite sure of the number, but there are some receivables that are against these contracts, so I will give that benefit. But in our research, and again, we don't take this lightly. We would not be getting into this business if we didn't feel that we could standardize it and essentially clear it. We believe that 80 to 90 percent of that trade can be standardized because it is going to be a lot of participation by hedge funds and other participants that you were referring to earlier in your comments, Mr. Chairman.

Chairman HARKIN. Does anybody else have a comment on that?

The last thing I just wanted to point out, it has been said a number of times about the President's Working Group and their position. I am reminded that in 1999 in a hearing before this committee, and in 2000—I think there were two hearings—the President's Working Group was the one that advocated—advocated—the exclusion of these instruments from the Commodity Futures Trading Commission. So if people are trying to convince me that the President's Working Group has all the knowledge in the world, I am sorry. I don't buy it any more after that one. So they have their views and that is about it.

Senator Klobuchar wanted me to mention that she regrets being unable to attend the hearing but would like to submit questions for the record on this important issue. I forgot to mention this earlier, but to all on this panel and the previous panel, we would like to be able to submit questions in writing from Senators who are not here for one reason or the other that might want to follow up, or maybe some here might want to follow up with written questions, also.

Did you have something?

Senator CRAPO. Mr. Chairman, I just wanted to comment on the line of questioning you were just engaging in. I think that is a very critical issue, this notion of regulated versus unregulated credit default swaps. Ultimately, I assume that a lot of that could be worked out in the negotiations and discussions that are being had with the Federal Reserve. But I just would say to the panel, if there is any more data that could help us, I would welcome you submitting it. I know Mr. Duffy indicated you have done some analysis, and I know Mr. Pickel has a perspective, as well, and others.

But I think that is a very critical issue, because really, what we need to find out here is the answer to the question that this hearing raised. What is the role of derivatives? I think we have opened up the issue here and we have peeled back a couple of layers, but we still need to get a little deeper into this to find out.

Chairman HARKIN. Did you have something you want to add? No?

Well, I don't mean to put a valedictory on this, but I have a couple of charts I just wanted to bring back here again. Just the one there, the sources of U.S. corporate profit, where we have seen over the years manufacturing going down and finances going up. Now, maybe those in the financial community say that is not a big worry, but there is something about that that bothers me. We just seem to be making more money on money.

I have a quote here from Raymond Dalio of Bridgewater Associates, who said the money that is made from manufacturing stuff is a pittance in comparison to the amount of money made from shuffling money around. Forty-four percent of all corporate profits in the U.S. come from the financial sector, compared with only 10 percent from the manufacturing sector. Well, this chart doesn't show it is that bad, but I don't know whether he is right or this chart is right.

But I think that for some reason, that concerns me, that we are just developing these instruments, as I mentioned, the collateralized debt obligations, the collateralized mortgage obligations, the credit default swaps, all these things going back, even back when Fannie Mae started those things back in 1983. And I am not certain, I am not convinced that there was a demand out there for these. It is just people got together and said, we have got a new product here. We can market it and we can make money on it. And they kind of took on a life of their own.

Now, the next chart I have kind of in concert with that is the credit debt as a share of U.S. GDP, and that also bothers me.

When you see for all the years from basically World War II up until about 1990, it was pretty stable. But from about 1990 on, it just skyrocketed. And I guess what bothers me about that is that we are getting further and further in debt. I don't just mean government debt. I mean personal, private debt out there, credit cards and everything else. And as that happens, it strikes me that it crowds out the kind of necessary investments that we may need to make in—well, I said that in my opening statement, things like health care, medical research, the infrastructure of America, retooling our manufacturing for the new energy era that hopefully is coming. And that just—for some reason that chart kind of bothers me, that credit debt as a share of U.S. GDP is now up to 360 percent of GDP and climbing.

It seems to me that at some point, there has to be a reckoning coming and we have to start unwinding some of this debt. I hope we can do it in a way that doesn't create too many dislocations, but I just wonder if we haven't gotten too far into credit debt in this country and into using financial instruments as a way of making money.

I am not saying they are all wrong, but I think it just got out of hand, and that is what this derivatives—that is why I am concerned about the amount of derivatives that are out there and how they keep growing and how we are not leveraging two or six or seven. We are leveraging 30, 35–to-one on some of these instruments. I just can't believe that is healthy for this country.

I don't mean to have the last word. If somebody else wanted to say something, I would be glad to yield to anybody here. But I want to thank all of you very much. We as a Congress, we have got to wade through this. We have got to get the best data and the best facts we can and try to not only do something about the present situation, but also find solutions for the future. What do we do down the road to make sure that these kinds of things don't happen again?

So I thank you all very, very much for being here and the committee will stand adjourned.

[Whereupon, at 1:19 p.m., the committee was adjourned.]

APPENDIX

OCTOBER 14, 2008

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Prepared Testimony of William K. Black
Associate Professor of Economics and Law
University of Missouri – Kansas City

October 12, 2008

Before the Committee on Agriculture, Nutrition & Forestry of the United Slates Senate

Introduction

Thank you for this opportunity to discuss the role of financial derivatives in the ongoing crises, the current system for regulating them, and suggestions for improvement. At your request, I have addressed, briefly, the "big picture" rather than the technical details. Any meaningful discussion of derivatives requires a discussion of the "underlying" – which in the current crisis is some form of debt. The most relevant debts are mortgages, particularly non-prime mortgage debt, which consists of subprime and "alt-a" loans. Some of the structured financial derivatives are extremely complex derivatives of derivatives, but at its core the story begins with mortgages.

Report

The largest financial bubble in world history occurred this decade in U.S. home prices. Financial derivatives were a necessary condition for the bubble to hyper-inflate to this extent and to spread the losses internationally. Prime and non-prime loans were essential to cause the hyper-inflation. Non-prime losses are greatly disproportionate (roughly $1 trillion), but losses on prime mortgages are also severe.

The data allow us to identify and rank the micro-economic factors *directly* feeding and permitting the bubble to hyper-inflate (and to rule out other suggested causes).

1. Non-regulation. The great majority of the bad non-prime loans were made by non-regulated entities or entities that were not regulated as to underwriting and credit quality. Similarly, the major players in the creation of derivatives dependent on mortgage loan quality, e.g., the rating agencies, auditors, and commercial and investment bankers, were not regulated as to underwriting and credit quality.

2. Deregulation. Insured depositories made roughly 20 percent of non-prime loans. They made an even smaller percentage of the worst non-prime loans. However, the largest S&L non-prime lenders have failed or are in crisis because of their non-prime lending. They could not have made these loans but for the removal of rules that required responsible underwriting. The repeal of Glass-Steagall Act contributed to the problem.
3. Desupervision. Where there were regulators with authority to act to require proper underwriting, to forbid imprudent lending, and to require appropriate accounting, they did not exercise their authority effectively.
4. "Control fraud." Control frauds are frauds in which the person that controls the corporation (typically, the CEO) uses its apparent legitimacy and power as a "weapon" to defraud. Accounting and securities fraud is their weapon of choice during the ongoing crises. The FBI has been warning since September 2004 that there was an *"epidemic" of mortgage fraud.* The FBI also reports that *lenders induce 80 percent of all mortgage frauds.* There has been no effective law enforcement response to the epidemic (and statutory changes and hostile court decisions have made it increasingly difficult to bring meritorious accounting fraud cases and recover appropriate damages). Accounting control frauds optimize by growing rapidly, covering up losses (e.g., by refinancing bad loans) and making the worst loans. They grow by leveraging – increasing their debt far faster than they increase their (reported) capital.[1] The primary function of credit default swaps (CDS) and collateralized debt obligations was to allow banks to increase their leverage substantially. This causes bubbles to hyper-inflate. Collectively, this causes fraud losses to be disproportionately large – and hidden. The defining element of fraud is deceit. One first creates trust in the victim and then betrays it. As a result, fraud can corrode trust, and this can cripple markets long before fraud becomes endemic. If we knew that one in one hundred water bottles were contaminated, how many of us would drink from them?
5. Compensation systems created perverse incentives that encouraged control fraud and other abuses. Executive compensation has frequently further "misaligned" the interests of shareholders and the managers and created intense incentives to engage in accounting fraud. A "Gresham's" dynamic can spread this dynamic to competitors. The compensation system for rating agencies and outside auditors creates conflicts of interest that aid and spread accounting fraud. Conservative economic theoreticians assumed that "private market discipline" would prevent accounting fraud. Instead, private parties, such as appraisers, auditors, rating agencies, lenders, and commercial and investment bankers functioned like accelerants in an arson fire. The fraudulent CEOs did not "defeat" these internal and external "controls", they suborned them into becoming their most valuable allies.
6. Volatility. The purported purpose of most financial derivatives is hedging. In the case of CDS, the primary actual purposes are greatly increased leverage and speculation (particularly through "shorting"). Hedging should reduce volatility.

[1] In reality, they are decreasing their true capital by making loans that will eventually lead to enormous losses.

CDS can lead to extraordinary volatility events so large that they pose systemic risks.

7. Preemption. The only aggressive action that the federal regulators took with respect to the surge of non-prime loans was to preempt State efforts to regulate affiliates of federally chartered financial institutions.

The data also allow us to refute two suggested causes of the hyper-inflated bubble. The Community Reinvestment Act (CRA) has existed for decades without causing a housing bubble or an epidemic of accounting fraud. The administration was hostile to the CRA and supported the efforts of the federal agencies to *reduce* enforcement of the CRA during the period the bubble was hyper-inflating. The CRA does not require anyone to make non-prime loans, much less bad non-prime loans. The great bulk of the worst non-prime loans were made by entities (e.g., mortgage brokers and bankers) that are not subject to the CRA. The mortgage brokers and bankers made bad non-prime loans for the same reason other lenders that were subject to the CRA did – it optimized accounting gains. Again, lenders subject to CRA requirements were considerably *less likely* to make abusive non-prime loans than were lender not subject to the CRA.

The second claim is that Fannie Mae and Freddie Mac were the engines driving subprime lending and the bubble. Neither claim is supportable. First, Fannie and Freddie obviously did not originate subprime and alt-a loans. Second, they lost substantial MBS market share this decade precisely because they were so *reluctant* to purchase non-prime mortgages. Third, to the extent they purchased non-prime paper they were disproportionately likely to purchase higher quality paper. Fourth, it was unregulated rating agencies and investment banking firms that crafted, "blessed" and bought and sold the worst non-prime MBS (and Collateralized Debt Obligations (CDOs) and Credit Default Swaps (CDS) based on non-prime MBS). Fannie and Freddie did purchase substantial amounts of this non-prime MBS, but it did so in order to increase its accounting income and if it had not purchased the non-prime MBS some other entities would have done so (at an even higher yield) and those financial institutions would have failed. *At all relevant times, the Office of Federal Housing Enterprise Oversight (OFHEO) had the statutory and regulatory authority to prevent Fannie and Freddie from purchasing any non-prime paper.* The administration, of course, appointed OFHEO's and HUD's leaders. None of these appointees, prior to the bursting of the housing bubble, attempted to restrict Fannie and Freddie from purchasing non-prime paper. The administration *supported* widespread non-prime lending. That is why it took no effective regulatory or statutory steps to curtail it. This was a classic example of de-supervision.

Unfortunately, the current system of regulation of the "underlying" (mortgages) and the financial derivatives can be summarized as non-regulation and de-supervision. Chairman Greenspan, despite the urgings and warnings of his colleague Dr. Gramlich, refused to have the Federal Reserve exercise its unique jurisdictional authority over mortgage bankers and brokers and refused even to have Federal Reserve examiners target subprime lending by affiliates of holding companies that they are supposed to regulate. Chairmen Donaldson and Cox relied on self-regulation by investment bankers. Five large savings & loans (S&Ls) made the bulk of the non-prime loans in what was (formally) the "regulated" sector. The Office of Thrift Supervision (OTS) exemplified the crudest form of de-supervision of these S&Ls – with disastrous results.

There are a number of regulatory responses that we know work very well, and some that risk making things far worse. Two of the most harmful (unintended) consequences of federal deregulation or de-supervision are (1) *de facto* decriminalizing the activity, and (2) making the activity opaque – or worse.[2]

Hindsight is rarely "20:20." Ideologically driven (non) regulators have strong personal and ideological incentives to cover up the scale of the problem and to blame it on anything other than their policies. The history of science shows the immense reluctance to admit that existing paradigms have been falsified. This problem is particularly acute for neo-classical finance and economics scholars because the theories that have been falsified by the ongoing crises are the foundations of modern finance.

Neo-classical economists' methodology, which they asserted made them the only social scientists worthy of the name, has also been falsified. The pricing models that were their most sophisticated development have failed. Mr. Buffett aptly terms them "mark to myth" and Chairman Volcker stresses that they have failed the test of the market place – and if you fail that test you produce derivatives that Mr. Buffett warned would become financial weapons of mass destruction.

Their policy advice, prompted by econometric techniques, was the worst possible advice. It increased the perverse incentives and optimized what we refer to as a "criminogenic environment" – an environment that breeds crime. During the expansion phase of a bubble, econometric studies *must* find that whatever characteristics optimize accounting fraud will have the strongest positive association with "earnings" and "stock appreciation." The econometric study will "prove" that the worst policies are the best policies. The "sign" of the correlation will reverse *after* the collapse of the bubble. Therefore, we urgently need to develop better, more reliable data (which is only possible through regulation), better theories, and better research methodologies.

Here are the practical regulatory steps we need to take:

1. Reliable, complete data are essential to evaluate individual, systematic, and systemic risk. The lack of information on financial derivatives has made it far more difficult for Treasury and the Fed to respond. Ignorance creates gratuitous systemic risk.
2. Regulation v. "private market discipline" is a false dichotomy. "Private market discipline" is vastly more effective when regulation produces more complete and reliable information. Absent regulation, private market "discipline" has become an oxymoron. The elite private entities that were supposed to discipline the

[2] We assume, absent corruption, that the government officials involved did not intend these consequences. Audacious control frauds, however, do intend these consequences and they use the corporation's apparent legitimacy and power to induce elected officials and regulators to create regulatory "black holes" that they can exploit. Enron's cartel, which caused the California energy crisis, is an excellent example of this. Indeed, Ken Lay emulated many of Charles Keating's tactics.

market were the most valuable allies aiding widespread accounting fraud. When the private markets began to exert discipline they did not do so in accordance with theory. Instead of making accurate, fine distinctions based on individual creditworthiness, they shut down entire markets and produced a catastrophe – because bankers no longer trust other bankers' accounting values for assets.

3. The purported justifications for many financial derivatives, including CDS and CDOs, are facially inappropriate. The primary stated purpose for CDS is for banks to increase their leverage dramatically. That means that banks have significantly less capital available when they suffer large losses. It was reckless for the regulators and the industry to encourage this leverage. The purpose of CDOs is even worse. They are designed to increase leverage and take debt off balance sheet (increasing opaqueness) through special investment vehicles (SIVs) that often also took substantial interest rate risk. This harms economic efficiency, inflates bubbles, increases fraud risk, and risks severe economic instability.
4. This is part of related, broader problems the next President and Congress must face. The Basel process for setting bank capital requirements is broken. If it is not fixed we will have recurrent crises. U.S. banking regulators were not unique is supporting provisions of Basel II that were expressly designed to (1) encourage banks to make more mortgage loans, (2) increase bank leverage, (3) mandate that large banks use proprietary models to value their assets and measure their risk.[3] Indeed, the U.S. regulators were more concerned than most of their European counterparts about reducing capital requirements.
5. The CDS market is vastly too big relative to its purported justifications. Something else is going on – massive speculation and very large "shorting." No one knows exactly how much is going on because of non-regulation and deregulation. Again, we cannot afford that ignorance.
6. Even the hedging justification is deeply suspect. Instead of hedging, it appears that the purported hedgers are substituting counterparty risk. Banks have proven techniques (loan syndications) to lay off risk if the size of a loan is too big relative to their capital. There is no reliable evidence that the entities selling "protection" in the CDS market have (1) the underwriting skills to make appropriate decisions and (2) have adequate capital to honor their commitments. If counterparties fail, one can generate a cascade of failures.
7. In sum, we should greatly cut back on CDS, CDOs, and SIVs. Net, they cause harm.

[3] It is impossible, particularly with federal pay caps on government workers, for any regulatory agency in the world to examine effectively a banking system using individual, proprietary models to value assets and measure risk. Moreover, the models have repeatedly, and grossly, underestimated risk and overstated values.

TESTIMONY

TO THE UNITED STATES
SENATE

COMMITTEE ON AGRICULTURE, NUTRITION, AND
FORESTRY

HEARING ON
"THE ROLE OF FINANCIAL DERIVATIVES IN THE
CURRENT FINANCIAL CRISIS"

BY SUPERINTENDENT ERIC DINALLO

NEW YORK STATE INSURANCE DEPARTMENT

TUESDAY, OCTOBER 14, 2008

DIRKSEN SENATE OFFICE BUILDING, ROOM 106

I would like to thank Chairman Tom Harkin, Ranking Member Saxby Chambliss and the members of the Senate Committee on Agriculture, Nutrition, and Forestry for inviting me to testify today at this hearing on the role of financial derivatives in the current financial crisis.

My name is Eric Dinallo and I am Insurance Superintendent for New York State.

I have been asked to discuss with you today one particular kind of derivative--credit default swaps--which have played a major role in the financial problems we now face.

Let me first establish why the New York State Insurance Department is a relevant authority on credit default swaps. I will expand on theses issues at greater length, but to provide a context, I will start with a brief summary.

As credit default swaps were developed, there was a question about whether or not they were insurance. Since initially they were used by owners of bonds to hedge their risk or seek protection or insurance in the case of a default by the issuer of the bonds, this was a reasonable question. In 2000, under a prior administration, the New York Insurance Department was asked to determine if certain credit default swaps were insurance and said no. That is a decision we have since revisited and reversed as incomplete. I will provide more detail on these important decisions shortly.

In addition, since I took office in January 2007, the impact of credit default swaps has been one of the major issues we have had to confront. First, we tackled the problems of the financial guaranty companies, also known as bond insurers or monolines. Credit default swaps were a major factor in their problems. More recently, we have been involved in the bailout of AIG. Again, management of credit default swaps was the biggest source of that company's problems.

Through these experiences, we have needed to carefully study the history and issues surrounding credit default swaps. And we have learned the hard way about their impact on markets and companies.

I am honored to have this opportunity to share with you what we have learned from this experience.

First, let's discuss what a credit default swap is and the different kinds of credit default swaps. A credit default swap is a contract under which the seller, for a fee, agrees to make a payment to the protection buyer in the event that the referenced entity, usually a company or other issuer of some kind of bond, experiences any number of various "credit events", such as bankruptcy, default, or reorganization. If something goes wrong with the referenced entity, the protection buyer can put the bond to the protection seller and be made whole, or a net payment can be made by the seller to the buyer.

Originally, credit default swaps were used to transfer and thus reduce or mitigate risk for the owners of bonds. If you owned a bond in company X and were concerned that the company might default, you bought the swap to protect yourself. Literally the buyer "swaps" risk of default with someone else. That is why it is called a credit default swap. The swaps could also be used by banks who loaned money to a company. This type of swap is still used for hedging purposes.

Over time, however, swaps came to be used not to reduce risk, but to create or assume it. This second type of swap is little more than a gamble on the value of a particular reference obligation. Institutions that did not own the obligation bought and sold credit default swaps to place a directional bet on a company's credit worthiness. In early May, we began to use the term "naked credit default swaps" to describe swaps bought by speculators because in that case the swap purchasers do not own the underlying obligation. The protection becomes more valuable as the company becomes less creditworthy. This is similar to naked shorting of stocks.

I have argued that these naked credit default swaps should not be called swaps because there is no transfer or swap of risk. Instead, risk is created by the transaction. Indeed, you have no risk on the outcome of the day's third race at Belmont until you place a bet on horse number five to win.

We believe that the first type of swap, let's call it the covered or "sartorial" swap, is insurance. The essence of an insurance contract is that the buyer has to have a material interest in the asset or obligation that is the subject of the contract. That means the buyer owns property or a security and can suffer a loss from damage to or the loss of value of that property. With insurance, the buyer only has a claim after actually suffering a loss.

With the covered swaps, if the issuer of a bond defaults, then the owner of the bond has suffered a loss and the swap provides some recovery for that loss. The second type of swap contains none of these features.

Because the credit default swap market is not regulated, we do not have valid data on the number of swaps outstanding, how many are naked, who bought, who sold and on which issuers they have been written. Estimates of the market were as high as \$62 trillion, though lately the market has been reduced to an estimated \$55 trillion. By comparison, as of the second half of this year, there was only about \$6 trillion in corporate debt outstanding, \$7.5 trillion in mortgage-backed debt and \$2.5 trillion in asset-backed debt, according to data from the Securities Industry and Financial Markets Association. That's a total of about \$16 trillion in private sector debt. So it appears that swaps on that debt could total at least three times as much as the actual debt outstanding.

When we were dealing with finding a solution for AIG, we knew the company had written almost half a trillion dollars in swaps, but we had no idea how much in swaps had been written on AIG itself or by whom. That meant we did not know what the broader effect of an AIG bankruptcy would be. Also, in our work on the bond insurers, we could not determine the total credit default swaps written on companies such as MBIA and Ambac.

As one of the efforts to stop the current financial crisis, the SEC suspended shorting the stock of 700 companies and all naked shorting of stocks. But nothing was done about the shorting of credit through credit default swaps, though there are much larger numbers involved.

Now, I think it would be useful for your purposes to go into some of the history, including important legislative decisions.

Gambling, betting or speculating on movements in securities or commodities prices without actually owning the referenced security or commodity is nothing new. As early as 1829, "stock jobbing", an early version of short selling, was outlawed in New York. The Stock Jobbing Act was ultimately repealed in 1858 because it was overly broad and captured legitimate forms of speculation. However, the question of whether to allow bets on security and commodity prices outside of organized exchanges continued to be an issue.

"Bucket shops" arose in the late nineteenth century. Customers "bought" securities or commodities on these unauthorized exchanges, but in reality the bucket shop was simply booking the customer's order without executing on an exchange. In fact, they were simply throwing the trade ticket in the bucket, which is where the name comes from, and tearing it up when an opposite trade came in. The bucket shop would agree to take the other side of the customer's "bet" on the performance of the security or commodity. Bucket shops sometimes survived for a time by balancing their books, but were wiped out by extreme bull or bear markets. When their books failed, the bucketeers simply closed up shop and left town, leaving the "investors" holding worthless tickets.

The Bank Panic of 1907 is famous for J.P Morgan, the leading banker of the time, calling all the other bankers to a meeting and keeping them there until they agreed to form a consortium of bankers to create an emergency backstop for the banking system. At the time there was no Federal Reserve. But a more lasting result was passage of New York's anti-bucket shop law in 1909. The law, General Business Law Section 351, made it a felony to operate or be connected with a bucket shop or "fake exchange." Because of the specificity and severity of the much-anticipated legislation virtually all bucket shops shut down before the law came into effect, and little enforcement was necessary. Other states passed similar gaming or bucket shop laws. Interestingly, to this day, companies wishing to use the world "exchange" must receive permission from New York State.

Thus, the various bucket shop laws essentially prohibit the making or offering of a purchase or sale of security, commodity, debt, property, options, bonds, etc., upon credit or margin, without intending a bona fide purchase or sale of the security, commodity, debt, property, options, bonds, etc. If you think that sounds exactly like a naked credit default swap, you are right. What this tells us is that back in 1909, 100 years ago, people understood the risks and potential instability that comes from gambling on securities prices.

With the growth of various kinds of derivatives in the late 20th Century, there was legal uncertainty as to whether certain derivatives, including credit default swaps, violated state bucket shop and gambling laws.

The Commodity Futures Modernization Act of 2000 ("CFMA"), signed by President Clinton on December 21, 2000, therefore created a "safe harbor" by (1) preempting state and local gaming and bucket shop laws except for general antifraud provisions, and (2) exempting certain derivative transaction on commodities and swap agreements, including credit default swaps, from CFTC regulation.

Thus CFMA stated: "This Act shall supersede and preempt the application of any state or local law that prohibits or regulates gaming or the operation of bucket shops."

CFMA also amended the Securities and Exchange Acts of 1933 and 1934 to make it clear that the definition of "security" does not include certain swap agreements, including credit default swaps, and that the SEC is prohibited from regulating those swap agreements, except for its anti-fraud enforcement authority.

Therefore, by ruling that credit default swaps were not gaming and not a security, the way was cleared for the growth of the market. But there was one other issue. If some swaps—covered swaps—were considered insurance, then they would be regulated by state insurance departments. The capital and underwriting limits in insurance regulation could have threatened the rapid growth in the market for these derivatives.

So at the same time, in 2000, the New York Insurance Department was asked a very carefully crafted question. "Does a credit default swap transaction, wherein the seller will make payment to the buyer upon the happening of a negative credit event and such payment is not dependent upon the buyer having suffered a loss, constitute a contract of insurance under the insurance law?"

Clearly, the question was framed to ask only about naked credit default swaps with no proof of loss. Under the facts we were given, the swap was not "a contract of insurance", because the buyer had no material interest and the filing of claim does not require a loss. But the entities involved were careful not to ask about covered credit default swaps. Nonetheless, the market took the Department's opinion on a subset of credit default swaps as a ruling on all swaps and, to be fair, the Department did nothing to the contrary.

In sum, in 2000 as a society we chose not to regulate credit default swaps, whether as insurance, as a security or gaming.

Why did that matter? As we have seen, the financial system has been placed in peril because there was no comprehensive management of counterparty risk. Deals were made privately between two parties. These bilateral arrangements mean that there are no standards for the solvency of counterparties, who can assign the credit default swaps to other parties. The buyer does not know how much risk the seller is taking on. There are no requirements for the seller to hold reserves or capital against the risks it is taking on by selling swaps. And no one knows who owns or where the credit default swaps ultimately reside.

None of this was a problem as long as the value of everything was going up and defaults were rare. But the problem with this sort of unregulated protection scheme is that when everyone needs to be paid at once, the market is not strong enough to provide the protection everyone suddenly needs.

Unlike insurance, credit default swaps are marked to market. That means, the value of the swap reflects the current market value, which can swing sharply and suddenly. Value changes require the sellers to post collateral. Sudden and sharp changes in the credit rating of the issuer of the bonds or of the bonds themselves can produce large swings in the value of the swaps and thus the need to post large and increasing amounts of collateral. That capital strain can produce sudden liquidity problems for sellers. The seller may own enough assets to provide collateral, but the assets may not be liquid and thus not immediately accessible. When many sellers are forced to sell assets, the price of those assets falls and sellers are faced with taking large losses just to meet collateral requirements. As the prices of the assets are driven down by forced sales, mark-to-market losses increase and the collateral posting cycle continues. Meanwhile, the underlying assets may continue to perform--paying interest and principal in full.

The above was a substantial part of the problem at AIG. A ratings downgrade on September 15 produced immediate collateral calls. The company did not have sufficient liquid assets.

In addition, chains of counterparty exposures mean that if any one link in the chain—any one counterparty—fails, others with exposure to that counterparty may also fail setting off a chain reaction. Many financial institutions bought protection from AIG, and there was great uncertainty as to whether all of these institutions could survive AIG's failure.

Was the AIG bailout necessary? I believe it was. Thanks to the protective moat created by state regulation, AIG's insurance operations were insulated from the problems in other AIG subsidiaries and are solid, profitable companies. Many of AIG's companies are leaders in their markets. They have substantial value. But that value could not be realized over a weekend. The bailout will provide time for an orderly restructuring of AIG's operations. It is possible that AIG will survive, as a smaller but much stronger insurance-focused enterprise. At least some of its operations will be sold.

Some argue that the company should have been filed for bankruptcy, as Lehman did. AIG has business relations with just about every major bank in the world. At a time when the financial system and in particular the credit markets are already deeply troubled, the risks of allowing AIG to file for bankruptcy were, in my opinion, just too great. The New York Federal Reserve Bank and the Treasury appear to share that view.

But that systemic risk does underline the need for us to heed New York Governor David Paterson's call to regulate the credit default swap market. In a recent statement, Governor

Paterson said, "The absence of regulatory oversight is the principal cause of the Wall Street meltdown we are currently witnessing. This is why New York took the crucial next step of planning to regulate an area of the market which had previously lacked appropriate oversight, but that is indisputably as regulatable as insurance. I strongly encourage the federal government to follow our approach and bring stronger regulatory oversight to these markets. New York stands ready to work expeditiously with all concerned to find a workable solution to this problem."

In an interview with the New York Times, Governor Paterson called credit default swaps "gambling" and noted that they were a major cause of AIG's problems. He told the paper that "when we peeled back the onion, we found out that AIG had so many credit default swaps that we couldn't calculate how much money they probably had" lost.

On September 22, Governor Paterson announced that New York State is prepared, beginning in January, to regulate part of the credit default swap market which has to date been unregulated. The State is prepared to provide clear regulatory guidance where credit default swaps are used as "insurance" to protect or "hedge" the value of investments held by the purchaser. These transactions are, both functionally and legally, financial guaranty insurance policies.

As I noted, the 2000 decision by the Insurance Department only considered naked credit default swaps. Last month, we determined that covered credit default swaps are insurance and therefore potentially subject to state regulation.

What would be the benefit of treating covered credit default swaps as insurance? Insurers must hold capital and reserves against risks. Insurers are subject to underwriting restrictions that ensure diversification. Insurers are not permitted to write policies with acceleration events, downgrade triggers or collateral calls. While financial guaranty insurance companies have been downgraded, they have maintained their solvency and liquidity. In short, if they were regulated as insurance, buyers of covered credit default swaps would be assured that they could actually have protection when they need it.

What New York State is doing fits our role as insurance regulators. We are providing an appropriate way for those with an insurable interest to protect themselves. Our goal is to ensure the terms of credit default swaps are written as a mechanism for protecting buyers against actual losses and not for betting on the credit quality of a third party. We will also ensure that whoever sells protection is solvent, in other words, can actually pay the claims. There is currently no such protection for parties to credit default swaps that use them as insurance.

The primary goal of insurance regulation is to protect policyholders by ensuring that providers of insurance are solvent and able to pay claims on policies they issue. The goal of regulating these swaps is not to stop sensible economic transactions, but to ensure that sellers have sufficient capital and risk management policies in place to protect the buyers, who are in effect policyholders and to ensure stable markets.

However, we recognize that carving up the credit default swap market is not the ideal solution. And we recognize that there are some valid uses of naked swaps to provide liquidity in the market for risk transfer. There may be different valid ways of having a material interest besides directly owning a bond, such as being long a stock, owning part of a syndicated loan or having a receivable. Also, it may be valid to use the swaps for various sophisticated trading strategies.

Governor Paterson's announcement that New York was ready to regulate part of the market starting January 1 framed the dialogue and pushed forward the discussion of regulating the entire market. The day after Governor Paterson's announcement, SEC Chairman Cox asked for the power to regulate the credit default swap market. And shortly afterward, the New York Federal Reserve began a series of meetings to discuss how to proceed.

There are a number of possible effective means of regulating the entire market, including an exchange, a clearing corporation or a centralized counterparty. Properly designed and operated, any solution would include margin requirements to ensure that there is sufficient capital and liquidity. There should be security funds and other mechanisms to manage counterparty default equitably and predictably. It should provide transparency, both with regard to prices and with regard to the amount of exposure by all counterparties. These measures would ensure that credit default swaps could be a tool for managing risk, without becoming a risk to the entire financial system. We support this effort to find and implement an effective holistic solution.

Credit default swaps played a major role in the financial problems at AIG, Bear Stearns, Lehman and the bond insurance companies. One of the major causes of this financial crisis was not how lax or tight we regulated or how easy or hard we enforced, but what we chose not to regulate. Clearly, it is time to start regulating credit default swaps.

As Governor Paterson said on September 22, New York stands ready to work expeditiously with all concerned to find a workable solution to the problem of how to regulate credit default swaps.

Thank you and I would be happy to answer any questions.

Testimony of Terrence A. Duffy
Executive Chairman, CME Group Inc.
Before the Senate Committee on Agriculture, Nutrition and Forestry

October 14, 2008

I am Terrence A. Duffy, executive chairman of CME Group Inc. Thank you Chairman Harkin and Ranking Member Chambliss for inviting us to testify today on these critical issues.

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 CME Inc., The Board of Trade of the City of Chicago Inc., NYMEX 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 food or energy 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 also offer order routing, execution and clearing services to other exchanges as well as clearing services for certain contracts traded off-exchange. CME Group is traded on NASDAQ under the symbol "CME."

You asked us to discuss the role of financial derivatives in the current financial crisis. Obviously, financial 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. This broad question has been the topic of dozens of scholarly books and articles, not to mention innumerable class action and shareholder derivative law suits. There seems to be a consensus that the financial crisis is not a consequence of the instruments; it is a problem with distribution and trading of such contracts in the unregulated, over-the-counter market that has not employed sufficient disclosure and risk management techniques. Derivatives are a tool for managing a firm's finances. Like all tools, they are neither beneficial nor harmful in themselves. Those involved with derivatives as dealers, investors, bankers or corporate treasurers need to understand how the instruments work, how they fit into the organization's business plan, and what risks the use of derivatives pose to the organization.

It has been the lack of price transparency and the failure to properly measure and collateralize the risk of those instruments in the OTC markets that has 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 this Committee, the CFTC and our industry can be justifiably proud.

When Lehman Brothers filed for bankruptcy last month, no futures customers lost a penny or suffered any interruption to its ability to trade. The massive proprietary positions of Lehman were liquidated or sold, with no loss to the clearing house and no disruption of the market. This tells us that our system works in times of immense stress to the financial system.

Fourteen years ago, on June 14, 1994, we testified before the Subcommittee on Environment, Credit, and Rural Development of the Committee on Agriculture of the House of Representatives on the topic of regulatory issues for OTC derivatives.[1] At that time, OTC swaps were in their infancy - the market had grown from approximately $2 trillion in 1989 to less than $8 trillion in 1994. We sounded a number of very clear warnings respecting the steps that would be necessary to assure that this rapidly growing market did not result in systemic problems to our economy.

> "There are common themes in the recent stories, beyond the obvious ones of massive financial losses and attempts to shift the blame to others. . . In almost all cases of unexpected losses, properly linked to derivative instruments, three elements are present, to varying degrees: (1) the accuracy of pricing the instruments involved; (2) the assessment of risk before the fact; (3) and the rapidity with which small losses became huge.
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> "First, the initial pricing of exotic instruments, such as tranches of collateralized mortgage obligations (CMOs), is almost always done by proprietary computer programs. This is how Wall Street's "rocket scientists" earn their living. The theories behind these programs can be very complex, but they generally do not account for the effects of illiquidity or "irrational" behavior that can turn buyers into sellers with a simple change in sentiment.
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> "The unwillingness or inability to evaluate risk, before the fact, is another common theme in these stories of losses from derivatives. Once the losses mount, everyone involved is absolutely shocked that such an event could occur. But this reaction is neither believable nor excusable. Every one of these derivative positions can be stress tested before the market moves. For example, what would happen to the position if interest rates fell by 50 basis points, or rose by 100? The same computer models that price these instruments in today's market environment can simulate hundreds of different outcomes in a matter of seconds. It is absolutely imperative that users of derivatives ask these "what if" questions. They must also receive answers that make them completely comfortable with the investment objectives and the risks that they are assuming.

[1] Testimony of CME's then Chairman John F. Sandner

"The third common theme relates to how quickly small losses become huge. It is unfortunately a sad fact of human nature that when errors are made, the tendency is to try to buy time for the situation to reverse itself. If a corporate treasurer has taken a position and lost, there is a temptation to try to trade out of the problem. Risking the shareholders' wealth in an attempt to replace previous losses may be the only way to preserve one's job. For a fund manager, there is a perverse reality that there is little difference between losing 50 percent or 100 percent of the investors' capital, since either result would likely lead to being fired. If a second risky position pays off, there is the chance that everything will right itself. In the publicized cases, such subsequent trades seemed to make matters worse.

"At this point, I want to contrast the benefits of exchange trading of derivatives with trading them O-T-C. . . . For years, exchanges trading derivatives, such as futures and options, have used procedures that promote careful risk management. Every day the market determines and discloses settlement prices based on the forces of public supply and demand. These prices may not always fit the ideal predicted by a computer model, but they do reflect real market conditions. Using public prices every day avoids the pitfalls of internally derived price evaluations.

"In the realm of before the fact risk analysis, portfolios of exchange-traded products have all been stress tested using the exchange's performance bond programs that simulate extreme changes in both price and volatility. These programs are designed to ask the question, "What is the worst possible outcome one can reasonably expect?" They do not actively judge whether that event will occur or not, but instead look neutrally at all possible outcomes. Once the biggest risk is identified, the Exchange requires collateral in the form of performance bonds against the position.

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"The Exchanges also have a long history of keeping small losses from growing by using daily marks to market and variation payments. If a position's value erodes, there is a daily call for cash. There is simply no opportunity to postpone judgment day with an exchange-traded derivative. Small losses must be met head on and evaluated. In the world of exchange-traded derivatives, it is rare that losses can be hidden from senior management, or that positions can be expanded in an attempt to recoup the losses already incurred from a bad strategy."

Since at least the early '90s, CME has had a consistent philosophy respecting the regulation of OTC derivative trading and 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.

On September 26, 2007, I testified before the House Agriculture Subcommittee on General Farm Commodities and Risk Management and discussed our view of the success of the Commodity Futures Modernization Act and the amendments that we believed were necessary to bring all trading of all standardized futures contracts under the control of the CFTC.

I do not intend to repeat that testimony, which was detailed and extensive. I will only note that we suggested that Congress look to "first principles," which means the findings and purposes adopted by Congress to guide the Commission's exercise of its jurisdiction. Section 5(b) of the Commodity Exchange Act charged the Commission with a duty to oversee "a system of effective self-regulation of trading facilities, clearing systems, market participants and market professionals" and to "deter and prevent price manipulation or any other disruptions to market integrity; to ensure the financial integrity of all transactions subject to this chapter and the avoidance of systemic risk; to protect all market participants from fraudulent or other abusive sales practices."

We suggested that there is a growing conflict between these "purposes" and the statutory exemptions for unregulated markets that had been inserted into the CEA by various special interests. It is clear to us that all of the key purposes mandated by Congress in Section 5(b) are jeopardized if trading facilities for contracts in exempt commodities are permitted to coexist with regulated futures exchanges that list those same commodities.

Rather than looking back and trying to assess blame, we want to move forward and explain what CME Group is offering and planning to offer to alleviate the risks to the economy currently represented by the almost $600 trillion in outstanding notional value of OTC swaps. We are in the process of offering a means to convert a significant proportion of outstanding OTC interest rate swaps into regulated exchange traded futures. If the dealers and their customers accept this program, we expect that standardization of these outstanding contracts and submission to our clearing system will permit a multilateral netting process that will reduce the outstanding exposure on the instruments submitted to our clearing system by a factor of at least five.

I want to particularly focus on our plans to play a role in the Credit Default Swap market. The CDS market has grown because credit derivatives permit dispersion and realignment of credit risks. These instruments are a tremendously valuable financial tool in the right hands and used properly. However, the individual and systemic risks created by the exponential growth of such contracts has not been properly managed - in some cases it appears not to have been understood by the managers who were highly compensated for promoting these instruments. The lack of transparent pricing, standardized contract terms, multilateral netting and all of the other advantages that flow from an integrated trading and central counterparty clearing system have compounded risk and uncertainty in this market. The gross notional exposure in that market is about $55 trillion. It is estimated that portfolio compression by netting could reduce that exposure by a factor of ten.

There is a solution. The transparent price discovery and multilateral trading and clearing mechanisms that has been proposed by CME and Citadel Investment Group offers a systematic 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. Our systematic multilateral netting and well-conceived collateralization standards 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.

Let me provide a few examples of the problems, and the solutions that our proposal offers:

- First, CDS markets are opaque: best price information is not readily available, as it is on an electronic trading facility. Efficient and accurate mark-to-market practices are hindered by the lack of transparency. Disagreements are common, leading to subjective and inconsistent marks and potentially incomplete disclosure to investors of unrealized losses on open positions. For example, earlier this year, Toronto Dominion Bank announced a $94 million loss related to credit derivatives that had been incorrectly priced by a senior trader. In an exchange model, with transparent pricing and broad market data distribution, such errors are much less likely to occur.

- Second, risk assessment information is inadequate, and risk management procedures are inconsistent across the market. Precise information on gross and net exposures is not available. The true consequences of a default by one or more participants cannot be measured – exactly the sort of systemic risk brought to light by the Bear Stearns and AIG crises, which caused major disruptions in the market. As Bear Stearns and AIG faltered, credit spreads for most dealers widened, volatility increased and liquidity declined. Intervention became necessary.

  Transparent market information combined with risk management protocols enforced by a neutral clearinghouse could have mitigated this outcome. Risk managers would have had accurate and timely information on their firms' positions, exposures and collateral requirements. Collateral to cover future risks would have been in place or positions would have been reduced. The clearinghouse and regulators would have seen and been able to manage concentration risks within a particular portfolio, and stress-test the consequences of a major default.

- Third, gross exposures for bilateral CDS transactions magnify systemic risk because a failure in the payment chain can spiral out of control.

  Our proposal goes beyond the plans of dealer-owned clearing systems, which only address the needs of the inter-dealer market. As we understand it, non-dealers, who may account for nearly half of current trading volumes, would not directly benefit from trade novation. Excluded participants also would reap little benefit from the clearinghouse's guarantee of performance. Settlement risk would be mutualized for some, but not all, trades.

Our proposal, which is open to both dealers and their customers, offers scalable, efficient trading and clearing mechanisms to market participants and brings price transparency to the entire market. Our systems include nearly instantaneous trade confirmation.

Our long experience is a tremendous asset in the fight against systemic risk in the CDS market. The CME Clearinghouse currently holds more than $60 billion of collateral on deposit and routinely moves more than $3 billion per day among market participants. We conduct real-time monitoring of market positions and aggregate risk exposures, twice-daily financial settlement cycles, advanced portfolio-based risk calculations, monitor large account positions and perform daily stress testing. Our clearinghouse has a proven ability to scale operations to meet the demands of new markets and unexpected volatility.

The CDS market requires product structures, rules and regulatory oversight that are suited to the needs of all participants. That may not occur if centrally traded and cleared credit products must be fitted within regulatory frameworks that were developed for different markets or to meet different policy goals. We are working with the New York Federal Reserve, the CFTC and the SEC to find a way quickly to bring our solution to market. We are encouraged that the regulators are highly motivated to contain the problem without delay and that cooperation among them will eliminate the jurisdictional and regulatory uncertainties that might otherwise delay a solution.

I thank the Committee for the opportunity to share CME Group's views, and I look forward to your questions.

TESTIMONY OF
DR. RICHARD R. LINDSEY
PRESIDENT, CALLCOTT GROUP LLC
BEFORE THE
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY
UNITED STATES SENATE
OCTOBER 14, 2008

I. Introduction

Good afternoon Chairman Harkin, Ranking Member Chambliss, and members of the Committee. My name is Richard Lindsey and I am President of Callcott Group LLC, a consulting firm specializing in risk management and portfolio allocation. I am also the chairman of the International Association of Financial Engineers. Previously, I have been a finance professor at Yale University, the Chief Economist and the Director of Market Regulation at the Securities and Exchange Commission, and, until December of 2006, the President of Bear Stearns Securities Corporation – the prime brokerage and clearing business of Bear Stearns. I am pleased to be here today to testify at the Committee's hearing on the Role of Financial Derivatives in the Current Financial Crisis.

We are, without a doubt, in the midst of the most serious financial crisis since the late 1920s. Millions of people are defaulting on mortgages; the world's financial markets have been shocked both by enormous losses, and by the fear that there are more losses to come; financial institutions that were once household names have been forced into bankruptcy or fire sales; and governments around the world are attempting to stabilize the markets with coordinated policies, interest rate cuts, and even direct cash infusions. In the middle of our collective shock at the magnitude and range of this calamity, everyone is looking for the culprit – what caused this crisis? Was it the greed of Wall Street? Incompetent regulators? Deregulation? Derivatives?

My testimony today will address certain fundamental facts associated with financial derivatives (focusing on credit default swaps) in an attempt to clarify and correct some of the misconceptions that have been widely reported in the popular press. I will then discuss the systemic risks inherent in the use of credit derivatives, the role of regulation in controlling those risks, and what can and should be done to mitigate those risks. Finally, I suggest a way forward through the current crisis.

II. Financial Derivatives – Myth and Reality

In general, financial derivatives take two forms: (i) exchange-traded derivatives, which are traded on recognized exchanges or boards of trade, and (ii) over-the-counter ("OTC") derivatives, which are privately negotiated, customized bilateral contracts, the obligations under which may only be transferred under certain agreed upon terms. The OTC derivatives market is usually substantially larger than the exchange-traded derivatives market.

Whether it is exchange-traded or over-the-counter, a derivative is always a bilateral agreement that shifts risk from one party to another. A credit derivative is an agreement explicitly designed to shift credit risk between two parties, and its value is determined by, or derived from, the credit performance of one or more corporations, sovereign entities, or securities. Credit derivatives were originally developed by financial institutions, primarily banks, as a means of hedging and diversifying credit risks in a manner similar to the manner used for hedging interest rate and currency risks. But the market for credit derivatives has also developed into a low cost method for investing in credit exposure (again, just like the market in interest rates and currencies). While credit derivatives are often pejoratively described in the media as a "bet", it is important to realize that one could equally describe all investments as "bets". When we buy the stock of a corporation, we are "betting" that the stock will be worth more in the future than what we paid. When we buy a bond, we are "betting" that the corporation will be solvent and repay its debts. Even when we buy US Treasuries, we are making a "bet" that the US Government will be able to repay its obligations (ideally without inflating away their value). To be sure, each of these investments or "bets" has a different risk profile, but it doesn't change the underlying fact that each investment always contains risk.

Credit default swaps (CDS) represent the vast majority of credit derivatives. A CDS is a contractual agreement to transfer the default risk of one or more entities or credits from one party to the other. The protection buyer pays a periodic fee to the protection seller during the term of the CDS. In return for this fee (usually called a spread), the protection seller compensates the protection buyer if the underlying credit defaults, declares bankruptcy, or experiences another agreed-upon credit event. The protection buyer is entitled to protection on a specified face value of the underlying credit's debt, the "notional amount." The underlying entity is not a party in any way to the contract, and it is not necessary for the buyer or seller to obtain the underlying credit's consent to enter into a CDS.

The fact that the underlying credit is NOT a party to the agreement and, further, that neither the protection buyer nor the protection seller needs to own the debt of the entity, has also recently been subject to a great deal of media hyperbole. This fact is frequently and shrilly cited as evidence that t credit derivatives are a "bet". But exactly the same statement could be made about futures contracts or stock options – neither the purchaser or the seller of those contracts needs to hold a position in the underlying commodity or stock; nor do they need the permission of the company (in the case of a stock option) or the farmer (in the case of an agricultural commodity) to enter into the contract in the first place. This is an old argument that simply misses the point that derivative instruments allow for the separation, identification, and isolation of certain risks through the establishment of new markets with new instruments, and thereby enhance the efficiency of capital markets and provide for better risk sharing and capital allocation.

Two simple examples may help to make this clear. First, consider Bank A, which has merged with another bank. The management of Bank A may feel that the loan portfolio of the combined banks is overexposed to a given credit, and may want to reduce that credit risk. Buying protection through a credit default swap provides a means by which Bank A can reduce its exposure to that credit, without endangering the business relationship (since the underlying credit need never know about the swap). This would be an example of a hedge where the protection buyer has a previous exposure to the underlying entity. In this case, Bank A can reduce exposure to an entity and increase the diversification in its portfolio; thereby decreasing risk and improving efficiency.

Now consider Bank B which wants to diversify its credit exposure but does not have a relationship with the quality of credits it desires. Bank B can sell protection through a credit default swap as an alternative to making loans or buying bonds. This is economically equivalent to lending directly to the desired credits. In this case, Bank B is able to diversify its loan portfolio and improve the quality of its credits; thereby decreasing risk and improving value for its shareholders. Importantly, in the second example, Bank B does not have a previous exposure to the underlying entity, but is able to gain exposure through the credit default swap market. Neither one of these banks could have achieved its objective without the existence of a viable market for credit derivatives – in both cases credit default swaps decreased risk and increased the efficiency of the financial markets.

The next misperception appears to be associated with the size of the credit default swap market. By virtue of the fact that the market is one of bilateral contracts, it is difficult to determine its size except through surveys like those conducted by the British Banker's Association (BBA) and the International Swaps Dealers' Association (ISDA). Even then, the only size statistic is the notional value associated with credit default swaps, which at the end of June 2008 was reported by ISDA to be $54.6 trillion. It is important to recognize, however that the notional value does not represent outstanding liabilities. The notional value represents the amount of money that protection sellers would owe protection buyers if every single underlying credit entity defaulted and the value of their debt went to zero. Given the primary credits upon which credit default swaps have been written, this would mean that the companies General Motors, Ford, ATT, Eastman Kodak, Time Warner, General Electric, Telecom Italia, France Telecom, and the countries of Brazil, Mexico, Turkey, France, Italy, and Japan all defaulted simultaneously and the value of their debt went to zero. That scenario is highly improbable.

In addition, buyers and sellers of credit protection are not unique. If a dealer sells $100 million notional of credit default protection on ATT to one customer, and buys $100 million notional of credit default protection from another customer, that represents a total of $200 million notional, even though the dealer no exposure to the underlying credit (it does have counterparty risk with the customers). In fact, according to the BBA, dealer positions represent more than 50% of the of the credit default swap market and, as can best be determined from public disclosures, have nearly equally balanced CDS exposures, consistent with the dealer business model. Finally, it is important to remember that credit default swaps, like all derivative contracts, are zero sum contracts – the loss of one party in the contract exactly equals the gain of the other party. In aggregate, therefore, the losses incurred by protection providers equal the gains realized by protection buyers, making the overall CDS market a "closed system", where gross losses equal gross gains, and both, when added, net to zero.

This is in contrast to the cash bond market where credit losses result in permanent loss of value.

The actual number that we should focus on is the gross replacement value of all outstanding credit default swaps, which according to the BBA was a little over $2 trillion at the end of 2007, or just under 3.5% of the notional amount for that period. That number represents the cost of replacing all the existing contracts in the market, just as the market price of an equity security represents the price at which it can be bought or sold in the open market. It is equal to the difference between the present value of fixed-rate premium payments to be made by protection buyers and the present value of the credit event-driven payments that the market expects will be made by protection sellers over the life of the swaps.

None of this is to say that the credit default swap market does not contain risk. And it is important to note that with a CDS, the risks assumed by the protection buyer and protection seller are not symmetrical. The protection buyer essentially takes a short position in the credit risk of the underlying entity, thereby eliminating any exposure to default (if it had any exposure to begin with). But in eliminating that exposure, the buyer takes on two forms of counterparty exposure: the first to the simultaneous default by the underlying credit entity and by the protection seller; and the second to replacement risk resulting from the default by only the protection seller. In addition, the protection buyer may have basis risk to the extent that the reference credit specified in the CDS does not precisely match the hedged asset. The protection seller, in contrast, takes a long position in the credit risk of the underlying entity combined with the counterparty risk associated with the buyer defaulting on its promised payments.

So in a credit default swap someone is always taking on the risk of default by the underlying credit (the protection seller), and both parties are taking on counterparty risk – the risk of doing business with each other. This counterparty risk, under the strain of the current crisis, has increased significantly beyond market expectations. Furthermore, counterparty risk has increased simultaneously for all counterparties, an event that even if it had been modeled by risk managers would have been viewed as a very low probability. I shall return to the issue of counterparty risk in the next section.

In addition, there is a more subtle form of risk associated with the credit derivative market and, in fact, with any derivative market –that is the understanding – or lack thereof – of the product and its use. Ultimately, this risk exists because of the gross and widespread failure by senior management and boards of directors of publicly traded companies. It is the duty of directors and company management to oversee the operations and understand the risks that their institutions are taking. In other words, it is not sufficient for members of the board to simply ask, and to be told that a given risk is hedged (or that the risk to an underlying credit has been "insured") and go no further. Each board member needs to have understood that in hedging the company took on a different counterparty risk. Did the board members ask about the quality of those counterparties? The overall exposure and risk concentration with each counterparty? Did they understand that they were writing protection on multiplies of the underlying credit? Did they have adequate understanding and control over a very new derivative product with a remarkable growth rate?

III. Systemic Risk and Regulation

In the previous section, I discussed the notional amount of credit default swaps outstanding. The large notional amount of contracts is not, in and of itself, a systemic issue, but the failure to adequately measure and manage the counterparty risks associated with that notional can carry significant systemic implications, as we have seen with the market's aggregate exposure to AIG. The bankruptcy of a major CDS counterparty like AIG would have exposed all of its counterparties to replacement risk and potential earnings shortfalls. There would have been a major disruption for dealers, since most of their CDS trading is done on a "matched-book" basis, and the loss of protection on one side would have increased their overall risk exposure. Given the size of the credit default swap market and the operational intensity of replacing all of those contracts, it is uncertain what would have happened.

There also could have been a "domino effect" – any appearance of significant problems with a major CDS counterparty may lead to a sudden increase in the number of novation (or transfer) requests as counterparties attempt to reduce their exposure to that firm. This can become a liquidity event for a firm as counterparties, with which the firm has a net receivable position, move their trades away and withdraw any cash collateral in the process. Similarly, when counterparties with which the firm has a net payable position assign their trades to new counterparties, the firm may be required to meet higher collateral requirements, including initial margin. Such a sudden "cash call", combined with any other difficulties experienced by the firm, can have significant negative (self-fulfilling) consequences.

A mechanism which would alleviate much of the potential stress associate with the failure of a major counterparty would be centralized clearing for credit default swaps. This would place a clearing organization on each side of a credit default swap; thereby replacing the counterparty risk with risk of the clearing organization. This is essentially the same mechanism that is used for listed stock options and futures. In addition to reducing counterparty risk, other significant benefits would flow from the use of a centralized clearing mechanism: (1) a clearing organization would require capital in the form of clearing deposits for each of the participants, and that capital requirement would increase with the level of activity of each participant; (2) participants in the market, the public, and regulators would have a precise understanding of the size and location of exposures; and (3) centralized clearing is likely to force the market to standardized terms and conditions, which would reduce operational complexity, improve liquidity, and make swap contracts more fungible.

Recognize that centralized clearing does not eliminate the risk associated with a counterparty default, it simply shifts that risk to a clearing organization that has the incentive to minimize such defaults by charging the appropriate clearing deposit. A clearing organization mutualizes this risk, and a clearing organization is only as strong as its risk management system and combined clearing members. Moreover, centralized clearing does not imply centralized trading. While there is nothing inherently wrong with centralized trading (such as on an exchange or a board of trade), too often the clearing organizations attached to those entities are used to prevent competition, rather than to promote competition in the marketplace.

The second mechanism for reducing the potential systemic risk associated with credit default swaps (or, in fact, any derivative product) is the establishment of appropriate capital requirements. Capital charges should not be solely based upon the level of market risk associated with the swap book (which, as we have seen, even when hedged can leave counterparty risk), but also upon counterparties. While multiple counterparties may diversify the risk to some extent, the capital charges should increase with aggregate exposure to those counterparties. In other words, even if the market risk cancels in a hedged transaction, the counterparty risk should (at a minimum) double unless it is a true cancellation of the contract.

The third mechanism for reducing the potential systemic risk is to increase the transparency associated with each reporting company's use of credit derivatives. The Financial Accounting Standards Board (FASB) has amended FASB Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*, to require enhanced disclosure by sellers of credit derivatives, and FASB Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness to Others*, to require an additional disclosure about the current status of the payment/performance risk of a guarantee. These amendments have the effect of requiring disclosure of such details as the nature and term of the credit derivative, the reason it was entered into, and the current status of its payment and performance risk. In addition, the FASB amendments require sellers to provide the amount of future payments they might be required to make, the fair value of the derivative(s), and whether there are provisions that would allow the seller to recover money or assets from third parties to pay for the insurance coverage it has written. The amendments are effective for reporting periods (annual or interim) ending after November 15, 2008 and should significantly increase the transparency of this market.

The final mechanism for reducing potential systemic risk that I will discuss today is, in my view, the most important. Corporate senior management and boards of directors must recognize their responsibility to understand and control the risks that their firms are assuming, through both business operations and financial market activity. It is not sufficient to receive assurances that everything is well controlled – each individual has a duty to probe, to challenge, and to ensure that he or she has confidence in and understands the answers. It is not the board's responsibility to know and understand every single trade, but each board member must understand the firm's business lines and the use (and misuse) of derivatives. If the board is not truly confident in its understanding of derivatives and the associated risk controls, then the firm should not be allowed to use or trade derivatives.

IV. A Way Through the Crisis

Although not strictly part of today's hearing, I would be remiss if I did not say a few general words about derivatives and their relation the current crisis. First, in the strictest sense, derivatives do not create risk, they simply allow risks that already exist to be traded and redistributed. If corporations or individuals use derivatives to expose themselves to an inappropriate level of risk (i.e. risks that they cannot manage or absorb), then those corporations or individuals have created real risks in the economy. Those risks were not created by derivatives, they were created by individuals or corporations making bad choices when using derivatives. For a firm – or for the press – to claim otherwise is for the firm to refuse to take responsibility for its own actions, or for the press to refuse to place responsibility where it rightly belongs.

The current financial crisis was not caused by derivatives. It results from the bursting of an asset price bubble in the real estate market. The cause of that price bubble was a combination of (1) a low interest rate regime (the Federal Reserve's response to the bursting of the internet bubble) and (2) a specific, but misguided, government policy to make home ownership widely available even to those without traditionally "good" credit ratings. The losses associated with the bursting real estate bubble are real, and those costs must be borne by someone. The financial system can transfer those losses from party to party, but in the end, until the real losses are absorbed by the economy, we will have uncertainty, turmoil, and financial disruption.

Just about a year ago, I proposed to the House Subcommittee on Capital Markets a solution to mitigate the transfer of losses in the economy by having defaulting mortgagees become renters and having the mortgage pools as landlords owning the real estate. My proposal came too early – before the crisis had reached its current extent. A colleague of mine, Dr. Stephen Figlewski, has recently proposed a similar solution that I think is superior to mine. Recognizing that the real estate losses in the economy are what is causing the current financial crisis, he proposes that instead of purchasing the derivative contracts (which have mortgages as the underlying), Treasury should simply take over ownership from defaulting mortgages and guarantee the original mortgage payments. This highly elegant solution immediately eliminates all of the uncertainty and should serve to immediately stabilize the financial markets. While the taxpayer still bears the burden associated with whatever the real losses are in the economy, it is likely that those losses will be much smaller guaranteeing mortgage payments than by purchasing the myriad contracts written predicated on those payments. Moreover, the government will own the underlying real estate, which clearly has a long term value.

Testimony of Robert Pickel
Chief Executive Officer,
International Swaps and Derivatives Association
Before the
Senate Committee on Agriculture, Nutrition and Forestry

October 14, 2008

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 850 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 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. Among other types of documentation ISDA produces definitions related to credit default swaps.

About Credit Default Swaps

Credit default swaps (CDS) are privately negotiated contracts which require one party to pay another in the event a third party cannot pay its obligations. To use an example, an investment fund that owns a large number of bonds issued by a corporation may want to protect its investors against the possibility that the corporation goes bankrupt. The investment fund would then seek a counterparty, usually a commercial bank, an investment bank or other financial institution, that is willing to enter into a CDS contact. Under the terms of this contract the investment fund agrees to periodically make payments to the counterparty, usually every six months for a specified time period such as five years. The counterparty (e.g. the bank, investment bank or financial institution) agrees to pay the full amount on bonds or loans issued by the corporation if there is a "credit event". Parties to a CDS contract are free to choose what constitutes a "credit event"; under standard ISDA documentation credit events include an issuer's bankruptcy, the acceleration of payments on its obligations, default on its obligations, the failure to pay its obligations, the restructuring of the issuer's debt or a repudiation or moratorium on payment on its obligations.

Credit derivatives like CDS serve multiple uses. As in the example above a CDS can be used by the owner of a bond or loan to protect itself against the risk that the borrower won't make good on its promises. A CDS can also be used to hedge against other risks related to the potential default of a borrower. For instance, an auto parts company that is heavily reliant on one auto manufacturer as its primary customer might seek to protect itself against the risk that manufacturer will go out of business. One way to do so would be to purchase credit protection (through a CDS) on that company. Though not a perfect hedge, such protection could at least help limit the fallout from that customer's bankruptcy.

CDS can also be used to express a view about the health of a particular company or the market as a whole. An investment fund might believe that there will be a large number of corporate bankruptcies in the future. In order to meet its fiduciary duty to invest its clients' money prudently the fund might seek to generate returns during those bankruptcies by purchasing credit protection on one or more companies the fund believes are most likely to default. Use of credit derivatives in this manner is similar to someone who sells wheat futures or buys put options on a security when they don't own the underlying wheat or shares. In each case the idea is to maximize profits from a decline in prices.

Recent Market Turmoil

Beginning in the summer of 2007 investors became aware of growing problems in certain securities backed by residential mortgages. In particular, it appeared that home loans made to borrowers with lower credit scores were experiencing higher-than-expected rates of default. This occurred simultaneously with an increasingly steep drop in the value of homes in the US. Thus mortgage loans were defaulting and the value of the homes that secured the loans were falling below the value of the loan itself.

Some of these mortgage loans had been sold by lending banks and repackaged as securities called "collateralized debt obligations," or "CDOs". Although CDO and CDS are similar abbreviations, they are very different products. As described above a CDS is a privately negotiated contract between two parties. A CDO, on the other hand, is an investment security that can be bought and sold freely on the market. Like other securities in the US, CDOs are subject to the disclosure and other requirements of the securities laws; nevertheless it appears that these CDOs, widely sold to investors throughout the US and the world, were fundamentally mis-priced. Worse, in some cases the structures of the CDOs themselves were extremely complicated and apparently not well understood.

As mortgage defaults increased and housing prices fell, the value of these CDOs became increasingly unclear. The secondary market for CDOs disappeared as buyers were unwilling to purchase securities backed by assets which were declining in value. When markets lack buyers it becomes difficult to determine the fair value of an asset; banks, investment firms, institutional investors and others were required to mark down the value of their portfolios. On paper these institutions themselves appeared to be rapidly losing value.

The Role of CDS in the Market Turmoil

From ISDA's conversations with regulators and market participants it appears that the role of CDS in the recent market turmoil can be described as follows:

First, CDS make the pricing and extension of credit more efficient. If a lender can be sure it will be repaid regardless of whether a borrower defaults, it is more likely to lend. There are many reasons that the last ten years have seen a world flooded with cash: loose monetary policy on the part of central banks; oil countries seeking to invest wealth generated by high energy prices; tremendous economic growth in emerging markets like India, China and Brazil. Experience demonstrates that, in retrospect, many loans were made that never should have been made.

Second, many credit derivatives require counterparties to post collateral in order to guarantee payment. Under any derivative contract both parties guarantee they will make payments to each other based on the value of some other asset or index thus both parties face risk both in terms of the price of that asset as well as the risk that their counterparty will be able to make its required payment. It is because of this last type of risk, called "counterparty credit risk," that a derivative contract counterparty may be required to increase the amount of collateral it gives to the other party to the contract if the first party experiences a change in its financial condition. For instance, a triple A rated company will generally be required to post less collateral than a single A rated company. But if that triple A rated company faces a ratings downgrade, it may be required to post more collateral.

In a typical situation a party that sells protection under a CDS contact is guaranteeing that it will pay the value of bonds issued by a third party. If that third party's financial condition worsens the counterparty that bought protection will require that the protection seller post more collateral. If this happens at the same time the protection seller has also suffered a deterioration in financial condition, it will be required to post still more collateral. Improperly managed, a derivatives counterparty could face a situation akin to a run-on-the bank, where as its financial condition worsens it becomes subject to more and more collateral calls until it can no longer meet its obligations under its derivatives contracts. This risk is not new or confined to derivatives markets; many financial contracts have a "material adverse change in condition", or MAC, clause that functions similarly. Swap participants have long been aware of this risk; the need for careful management was highlighted 15 years ago in a document outlining good risk management practices for the Group of Thirty, the widely cited "Derivatives: Practices and Principles." Nevertheless for counterparties that fail to follow good practices the consequences can be significant.

This appears to be what happened in the case of AIG. AIG was one of America's largest corporations, an insurance company regulated under the laws of the State of New York as well as a thrift holding company supervised by the Office of Thrift Supervision. AIG was highly rated by SEC licensed rating agencies, who considered it well capitalized. Many of AIG's derivatives counterparties apparently did not require it to post collateral; in particular AIG Financial Products, a wholly owned subsidiary of AIG active in the derivatives business, did not routinely post collateral. When on September 16, 2008, AIG's credit rating was downgraded, its creditors, including counterparties to derivatives contracts, demanded the company post more collateral than it had available. AIG was unable to meet its contractual obligations and sought assistance from the US government.

While the market value of AIGs contracts has declined, and its collateral requirements have increased, we are not aware that they have been called upon to make payments following defaults on significant numbers of obligations. An increase in the market value of mortgage backed securities, or merely the performance of the mortgages underlying the mortgage backed securities it has guaranteed, would reduce AIG's difficulties substantially. To our knowledge AIG has performed on all of its obligations.

The Performance of Credit Derivatives in the Current Market

The last several weeks have seen five major credit events. On September 15 Tembec Inc., a Canadian forest products company, filed for bankruptcy in the US. This filing was largely lost in the cavalcade of bankruptcies and credit events that followed: Fannie Mae and Freddie Mac, two of the world's largest issuers of debt, were taken into government conservatorship. Shortly thereafter Lehman Bros., one of the largest OTC derivatives dealers, filed for bankruptcy. Then Washington Mutual likewise filed for bankruptcy protection.

All of the above companies were referenced under a large number of CDS; with the exception of Tembec they also tended to be counterparties to a large number of other types of derivatives trades. Despite defaults by these firms, the derivatives markets, and in particular the CDS market, has continued to function and remain liquid. This is true even while the other parts of the credit markets have seized-up and the equities markets continue to decline precipitously. Credit derivatives remain one of the few ways parties can continue to manage risk and express a view on market trends.

The failure of Lehman Bros. provided a test case for managing the default of a major derivatives dealer. Despite dire predictions and erroneous press reports, OTC derivatives transactions are designed to deal with the failure of any market participant, even a major dealer. Starting in the late 1980s, Congress acted to amend the bankruptcy and banking insolvency statutes to ensure that the failure of a major counterparty to a qualified financial contract, such as a swap agreement, would not spread systemically and threaten other market participants. Thus, under US law the counterparties to a failed firm like Lehman Bros. are able to net-out payments owing to and from the bankrupt counterparty without having to wait for a bankruptcy judge to resolve all claims. Additionally, counterparties are allowed to foreclose on collateral the failed party posted. In this way a derivatives counterparty is protected against suffering large losses because the other party to the contract can't meet its obligations.

The bankruptcy of Lehman Bros. shows the strength and resiliency of this system. The failure of this large Wall Street firm has not caused the failure of its derivatives counterparties; that risk was contained because of the prudent structure of insolvency law in the US and the apparently sensible collateral requirements of Lehman's counterparties.

In addition to the resiliency of the derivatives markets in the face of the failure of a major counterparty, the credit events involving Fannie and Freddie likewise demonstrate the strength of the business. As noted above Fannie and Freddie were two of the world's largest issuers of debt and likewise two of the largest objects of CDS protection. When the US government decided to place these GSEs in conservatorship, the credit event provisions of the standard ISDA documents were triggered. That meant that thousands of CDS trades on Fannie and Freddie needed to be settled. Likewise, Lehman was also the object of thousands of CDS trades which needed to be settled in light of that company's bankruptcy.

As has occurred in previous credit events ISDA held an auction to determine the cash price of the outstanding debt of Fannie, Freddie and Lehman. These auctions, occurring on October 8 (in the case of the GSEs) and October 10 (in the case of Lehman) were done according to well established procedures and resulted in the successful settlement of the outstanding CDS trades on the three companies. As has occurred in the case of previous credit events, participants in the CDS business have seen their trades settled in an orderly fashion and according to swap participants' expectations

Conclusion

As this testimony makes clear, both the role and effects of CDS in the current market turmoil have been greatly exaggerated. There is no question that CDS facilitate lending and corporate finance and, as such, have impacted and been impacted by recent events. However to say that CDS were the cause, or even a large contributor, to that turmoil is inaccurate and reflects an understandable confusion of the various financial products that have been developed in recent years. There is little dispute that ill advised mortgage lending, coupled with improperly understood securities backed by those loans, are the root cause of the present financial problems. It is also true, however, that recent market events clearly demonstrate that the regulatory structure for financial services has failed. Laws and regulations written in the 20th century, in many cases designed to address markets which existed in the 18th century, need to be changed to account for 21st century markets and products. An in-depth examination of US regulatory structure is self-evidently warranted.

In this examination it is ISDA's hope that the facts surrounding OTC derivatives, and the role they continue to play in helping allocate risk and express a view on market activity, will highlight the benefit of derivatives and of industry responsibility and widely applied good practices. Derivatives have continued to perform well during a greater period of stress than the world financial system has witnessed in decades. In the wake of failures of major market participants, both counterparties and issuers of debt, CDS participants have settled trades in an orderly way precisely according to the rules and procedures established by Congress and market participants. In this respect CDS activity has been a tremendous success. We are confident that policymakers and market participants alike will find their prudent efforts in helping build the infrastructure for derivatives over the last twenty five years have been rewarded.

Written Testimony of DCIO Director Ananda Radhakrishnan Before the Senate Committee on Agriculture, Nutrition, and Forestry

October 14, 2008

Chairman Harkin, Ranking Member Chambliss, and other distinguished Members of the Committee, I am pleased to have this opportunity to appear today to discuss risk management for credit default swaps (CDS). The Commodity Futures Trading Commission (CFTC) welcomes the opportunity to discuss over-the-counter (OTC) derivatives and the benefits derived from clearing such products.

OTC Swaps and Regulated Futures Transactions

From the beginning of U.S. futures trading in the mid-1800s until recently, regulated futures exchanges offered the primary means by which commercial entities could manage their physical market price risks. During the 1980s, however, financial institutions began to develop non-exchange-traded derivatives contracts that offered similar risk management benefits. In 1981, the World Bank and IBM entered into what has become known as a currency swap. The swap essentially involved a loan of Swiss francs by IBM to the World Bank and the loan of U.S. dollars by the World Bank to IBM. The motivation for the transaction was the ability of each party to borrow the funds they were loaning more cheaply than the counterparty, thus reducing overall funding costs for both parties. This structure of swapping cash flows ultimately served as the template for swaps on any number of financial assets and commodities.

The development of the OTC swap industry is related to the exchange-traded futures and options industry in that a swap agreement can function as a competitor or complement to futures and option contracts. Market participants often use swap agreements because they offer the ability to customize contracts to match particular hedging or price exposure needs. Conversely, futures markets typically involve standardized contracts that, while often traded in very liquid markets, may not precisely meet the needs of a particular hedger or speculator. The OTC swap market has grown significantly because, for many financial entities, the OTC derivatives products offered by swap dealers have distinct advantages relative to futures contracts.

Yet, these OTC swap transactions are largely unregulated. With respect to the CFTC, the Commodity Exchange Act (CEA) excludes most OTC financial derivatives, including CDS, from its regulatory and enforcement jurisdiction.[1]

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[1] *See, e.g.*, CEA, 7 U.S.C. §§ 2(d) and 2(g). Section 2(d) excludes from CEA coverage transactions involving an "excluded commodity" (a broad range of interest rate, currency, credit, equity, weather, and other derivatives) that are not executed on a trading facility and are entered into solely by eligible contract participants. Section 2(g) excludes from CFTC regulation transactions involving a commodity other than an agricultural commodity that are not executed on a trading facility if they are entered into solely by eligible contract participants and are subject to individual negotiation.

Section 2(d)(2) also excludes transactions involving an excluded commodity that are executed through an electronic trading facility by eligible contract participants trading on a principal-to-principal basis, or by certain authorized fiduciaries or investment managers. Finally, under Title IV of the Commodity Futures Modernization Act of 2000 (CFMA), an exclusion from the CEA was created for certain individually-negotiated swap agreements offered by banks to eligible contract participants.

Credit Default Swaps

The current financial crisis is requiring policymakers to rethink the existing approach to market regulation and oversight. Many observers have singled out OTC credit derivatives, including CDS, as needing greater scrutiny and transparency.

OTC credit derivatives emerged in the mid-1990s as a means for Wall Street financial institutions to buy insurance against defaults on corporate obligations. Specifically, OTC credit derivatives are bilateral off-exchange instruments that allow one party (the protection buyer) to transfer credit-related risks associated with the actual or synthetic ownership of a "reference asset" to another party (the protection seller) for a price.[2] The reference asset associated with an OTC credit derivative may be a corporate debt obligation (such as a bond or a bank loan), a sovereign debt obligation, an asset-backed security (such as commercial mortgage-backed securities), or any other obligation or debt. Credit derivatives transfer the credit risks attendant to the actual or synthetic ownership of a reference debt obligation.

The most common credit derivative product is the CDS. Under a CDS, the protection seller promises to compensate the protection buyer for the economic loss associated with a material decline in the value of a reference asset that is triggered by the occurrence of a pre-determined "credit event," such as a filing for bankruptcy or default on a debt payment by the issuer of the reference asset. In some CDS contracts, the protection buyer pays the protection seller a "periodic premium" for the protection.[3] If a triggering credit event occurs, then the protection buyer would receive a full lump-sum payment that is some fraction of the par value of the reference asset, to compensate the buyer for the asset's devaluation. In turn, the protection buyer would deliver the devalued asset to the protection seller.

The estimated notional amount of CDS transactions has nearly doubled every year since 2001 to reach an estimated peak of $62 trillion in 2007, before receding 12 percent to $54.6 trillion as of June 30, 2008.[4] In all likelihood, this number somewhat overstates the actual size of the CDS market because many traders hold offsetting positions that have not been netted against each other. Nevertheless, the size of total CDS positions is substantial.

The Benefits of Clearing of OTC CDS Transactions

Recent events have uncovered the risks that certain CDS transactions pose to the financial system. American International Group, an insurance company, reportedly issued CDS transactions covering more than $440 billion in bonds, leaving it with obligations that it could not cover in the current market conditions. This CDS exposure factored into the Federal

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[2] In the OTC market, the terminology "protection seller" and "protection buyer" is used to refer to the seller and the buyer of a credit derivative.

[3] CDS pricing is based on (i) the probability that the issuer of the reference asset will experience a credit event, and (ii) the expected recovery rate for the reference asset. Credit events are defined in Article IV of the 2003 International Swaps & Derivatives Association's (ISDA) *Credit Derivatives Definitions*. These definitions and standards are well established, and they have been adopted for widespread use in the OTC market.

[4] ISDA News Release, Sept. 24, 2008 (available at http://www.isda.org/press/press092508.html).

Reserve's decision to provide an $85 billion conditioned loan to the ailing company to prevent its failure and a possible contagion event in the broader economy.[5] Clearly, there are major risks associated with these products that need further review.

The dispersed and non-standardized nature of many OTC instruments makes finding a regulatory solution a challenging task. But policymakers must strive to increase the transparency of these transactions and find ways to mitigate the systemic risk created by firms that offer and hold these off-exchange instruments. While wholesale regulatory reform will require careful consideration, centralized clearing is one immediate and proven solution that could help mitigate the risks associated with these products.

Clearing mitigates counterparty risk by substituting the credit of the clearinghouse for the credit of the counterparty. In addition, clearing: (1) addresses the assessment of market risk and price transparency by publishing a settlement price each day for each product; (2) increases liquidity by enabling participants to offset positions against entities other than the original counterparty; and (3) facilitates order processing by establishing standard procedures and deadlines. For these reasons, this solution has been advocated by CDS market participants and the President's Working Group on Financial Markets (PWG). The PWG first recommended providing clearing solutions for OTC derivatives in a 1999 report to Congress.[6]

Clearinghouses have been available for many years as a means for mitigating the risks associated with exchange-traded financial products. Whether securities, options, or futures, centralized clearinghouses ensure that every buyer has a guaranteed seller and every seller has a guaranteed buyer, thus minimizing the risk that one counterparty's default will cause a systemic ripple through the markets. The clearinghouse is able to take on this role because it is backed by the collective funds of its clearing members.

Clearing would enable parties to a CDS transaction to focus solely on obtaining the best price for the transaction, without regard to whether the parties executing opposite them are capable of performing their obligations. Because the clearinghouse would serve as the central counterparty to all transactions, parties could close out their positions without having to seek out the original counterparties to their trades.

Clearing would also strengthen the infrastructure of CDS trading by facilitating more timely and accurate post-trade processing. For many years, post-trade processing of OTC derivatives has been a decentralized, paper-based process. As a result, the enormous growth in trading volume led to massive backlogs in confirming trades. Various initiatives have been undertaken to improve the trade processing of CDS transactions, and progress is being made toward resolving the backlogs; however, much work remains to be done. By contrast, as evidenced by the performance of U.S. futures clearinghouses, efficient and accurate trade processing is a hallmark of clearing. Adopting a clearing regime for CDS would prevent such backlogs from developing in the future.

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[5] Indeed, it now appears that AIG may be the beneficiary of up to an additional $37.8 billion in federal aid.

[6] Over-the-Counter Derivatives Markets and the Commodity Exchange Act, Report of the President's Working Group on Financial Markets, November 1999.

Centralized clearing addresses the root problems the markets are confronting today—the constriction of credit due to fear of default. Indeed, for futures contracts—the standardized on-exchange cousin of OTC derivatives—clearing has worked extraordinarily well in managing credit risk. The first independent U.S. futures clearinghouse was established in 1925, and this model helped launch others. Today, the world's largest derivatives clearing facility is located in the United States and routinely moves billions of dollars per day in mark-to-market settlements, including a record $12.7 billion on January 23, 2008, without any disruption. In 2007, that same facility traded a record 2.2 billion derivative contracts valued at more than one quadrillion dollars.

For regulated futures exchanges, the clearing and settlement mechanism serves to lessen the likelihood that large losses by a trader will cause a contagion event. At least twice daily, futures clearinghouses collect payments from traders with losing positions and credit traders with profitable positions. This twice-daily "mark to market" prevents the buildup of significant losses. Importantly, no U.S. futures clearinghouse has ever defaulted on its guarantee.

Just as significant, the clearing process provides transparency to regulators. When transactions are cleared, government and exchange regulators receive daily trader and pricing information, which helps them to police for manipulation and fraud and to uphold the integrity of the market.

Current Regulation of OTC Derivatives Clearing

Clearing has been proven to work for OTC derivatives. After Enron's demise in 2001, the OTC energy derivatives markets "locked up" because many energy companies lacked the requisite financial standing to back their off-exchange trades. In response, the New York Mercantile Exchange (NYMEX) sought and received approval from the CFTC in 2002 to clear OTC energy products for the first time. Today, a significant number of OTC energy derivatives are cleared through regulated clearinghouses, which has reduced systemic risk and allowed regulators a greater window into this marketplace. Clearing for OTC products now extends beyond just energy products to financial products such as forward rate agreements and foreign currency swaps.

Under existing law, any derivatives clearing organization (DCO) that is registered with the CFTC may clear all OTC derivatives without further registration or subjecting itself to any additional regulatory requirements.[7] Pursuant to the CEA, the CFTC regulates DCOs and has the statutory mandate to ensure the financial integrity of transactions subject to the CEA and to avoid systemic risk. The CFTC relies on the 14 core principles for DCOs set forth by Congress in the CEA, 7 U.S.C. § 7a-1, as a means of evaluating whether DCOs comply with U.S. law.

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[7] The CFMA added Section 409 to the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), 12 U.S.C. § 4422, which governs the clearing of OTC derivative instruments by multilateral clearing organizations (including DCOs). Section 409 of FDICIA prohibits a person from operating a clearing organization for OTC derivative instruments except if that person is registered with the CFTC or the SEC, or is supervised by certain approved foreign financial regulators, or unless that person is a type of banking organization.

In analyzing compliance with these principles, the CFTC looks to the controls and tools utilized by a clearinghouse, including: (1) appropriate membership standards and continuing oversight of members; (2) collection of position reports from large traders; (3) daily mark-to-market of all open positions; (4) collection of an appropriate amount of performance bond (sometimes referred to as "margin"), which serves to cover any losses that cannot be met by the market participant; (5) periodic stress-testing of open positions; (6) an ability to liquidate all of a market participant's open positions quickly; and (7) availability of other financial resources for use by the clearinghouse to cover any member default. Any clearinghouse seeking to clear CDS transactions will need to show in its proposal that it can bring such tools to bear.

While DCOs do not need pre-approval from the CFTC to clear OTC derivatives, any such initiative would be required to comply with the relevant core principles set forth in the CEA, and the CFTC would review it for compliance with those principles. In addition, the CFTC would need to approve in advance any request by a DCO to commingle funds associated with "cleared-only" OTC derivatives with the DCO's customer segregated funds. The customer funds underlying exchange-traded futures and options are required to be held in a separate account and to be segregated from the funds of the clearing member and of the DCO. The CEA and CFTC regulations prevent any other funds from being held in the segregated account absent permission from the CFTC. This is a critical customer protection feature that is designed to ensure that customer funds for exchange-traded futures and options are protected and available for withdrawal or transfer even if the clearing firm in question experiences severe financial distress or goes into bankruptcy. In appropriate circumstances, the CFTC has permitted DCOs to commingle customer funds associated with "cleared-only" OTC derivatives with customer funds associated with exchange-traded futures and options in the segregated account. The CFTC has permitted such treatment only when it has concluded that the benefits of permitting such commingling outweigh the risks.

Separate from clearing, the creation of a trading platform for CDS products also could be beneficial because it would enhance pricing transparency, liquidity for the product, and order processing. However, the utility of some of these customized off-exchange instruments might be lost if they become sufficiently standardized to be listed on a multilateral exchange trading facility. For example, two major U.S. derivatives exchanges listed credit derivatives products in 2007, but neither product was able to gain a significant market share.

In closing, the CFTC, in conjunction with other financial regulators, will continue to seek ways to provide clearing solutions for OTC derivatives. Last month, in its swaps report to Congress, the CFTC recommended the further use of clearing for OTC derivatives. There are several private sector clearing initiatives currently being considered by Federal regulators, and it is imperative that policymakers work cooperatively and expeditiously to conduct their due diligence and allow appropriate programs to begin operations promptly. While comprehensive financial reform might take time, encouraging centralized clearing is one immediate step that can reduce risk in the markets and benefit the U.S. economy.

Thank you for your leadership on this critical issue. We look forward to participating fully in Congressional and regulatory efforts to address these issues and to implement policies and practices that serve the public interest.

ICE

WRITTEN TESTIMONY OF JOHNATHAN SHORT
SENIOR VICE PRESIDENT AND GENERAL COUNSEL
INTERCONTINENTALEXCHANGE, INC.
BEFORE THE SENATE
COMMITTEE ON AGRICULTURE

OCTOBER 14, 2008

Introduction

Chairman Harkin, Ranking Member Chambliss, I am Johnathan Short, Senior Vice President and General Counsel of the IntercontinentalExchange, Inc., or "ICE." We very much appreciate the opportunity to appear before you today to discuss the role of credit derivatives in the financial markets and discuss ICE's efforts, along with other market participants, to introduce transparency and risk intermediation into the OTC credit markets. ICE is proud to be working with the Federal Reserve Bank, the Commodity Futures Trading Commission ("CFTC"), and the Securities Exchange Commission on these efforts that are vital to the health of our financial markets. Importantly, ICE has a history of working with OTC market participants to introduce transparency and risk intermediation into markets, having been a pioneer in the introduction of transparent electronic trading into the energy markets and having introduced cleared OTC energy swap contracts into its markets in 2002 in response to a market crisis in the energy markets – a freezing of credit and transactions – much like the crisis faced today in the broader financial markets.

Background

ICE was established in 2000 as an electronic over-the-counter (OTC) market. Since that time, ICE has grown significantly, both through its own market growth fostered by ICE's product, technology and trading innovations, as well as by acquisition of other markets to broaden its product offerings.

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 a separate 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 US), a CFTC-regulated Designated Contract Market (DCM) headquartered in New York 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.

ICE also owns and operates three clearinghouses: ICE Clear US, a Derivatives Clearing Organization under the Commodity Exchange Act, located in New York and serving the markets of ICE Clear US; ICE Clear Europe, a Recognised Clearing House located in London that will serve ICE Futures Europe and ICE's OTC energy markets; and ICE Clear Canada, a recognized clearing house located in Winnipeg, Manitoba that serves the markets of ICE Futures Canada.

Finally, and of importance to this discussion, ICE recently acquired Creditex Group. Founded in 1999, Creditex is a global market leader and innovator in the execution and processing of credit derivatives. Creditex operates a hybrid model of voice and electronic execution, and was the first to successfully launch electronic trading for credit default swaps in 2004. In the last few years, Creditex has worked collaboratively with market participants on three important initiatives which directly address calls by regulators, most notably the Federal Reserve Bank of New York, for improved operational efficiency and scalability in the credit derivatives market.

In 2005, Creditex helped to develop the ISDA Cash Settlement Auctions which are the market standard for credit derivative settlement and have been used in recent weeks to allow orderly settlement of CDS contracts referencing Fannie Mae, Freddie Mac and Lehman Brothers. Also in 2005, Creditex launched its subsidiary, T-Zero, which is now the industry standard for trade transmission and same-day trade matching. The platform addresses recommendations by the President's Working Group earlier this year for flexible and open architecture, ambitious standards for accuracy and timeliness of trade matching errors and operationally reliable and scalable infrastructure. In recent months, Creditex has also worked collaboratively with industry participants to launch a platform to allow efficient compression of offsetting CDS portfolios of major dealers. The platform reduces operational risk and provides capital efficiency.

Credit Derivatives and the Importance of Credit Derivatives Clearing

ICE has earned a reputation as an innovator in introducing clearing and transparency to the energy derivatives markets. ICE was the first to introduce clearing to the power markets, which were the domain of voice brokered, bilateral transactions. Voice brokered transactions offer limited transparency and cater to the largest customers. Now, the energy markets are predominately cleared with the attendant benefits of mitigation counterparty credit risk and related systemic risk that can flow from the failure of a large trading counterparty that has bilateral agreements with a large number of market counterparties. Of equal importance, regulators such as the CFTC and the Federal

Energy Regulatory Commission ("FERC") were provided with important market and individual trading information that has allowed each agency to better understand, monitor, and discharge their respective regulatory obligations with respect to these vital markets. In its last State of the Markets Report, FERC remarked ICE "provides the clearest view we have into bilateral spot markets."[1]

Like energy derivatives, credit derivatives serve an important role in the broader financial markets, allowing parties to shift credit risk, such as the downgrade in a company's debt, or insure against a default in connection with a credit instrument. A common type of credit derivative is the credit default swap, in which the buyer agrees to make a payment or series of payments to the seller. In return, the seller agrees to pay the buyer should a specified credit event occur. Presently, the credit market is very similar to the way energy markets worked earlier this decade; most transactions are bilaterally executed through brokerage firms. This is not a transparent or efficient way for a market to operate. Critically, the bilateral nature of the market leaves participants exposed to counterparty risk. 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, they then stop lending to each other and the credit markets freeze.

The question before us today is how to bring appropriate transparency to the credit derivatives markets, as well as how to appropriately mitigate counterparty credit risk and resulting counterparty default risk that can have implications in the broader financial markets when a large market counterparty defaults on its obligations. ICE believes that the mutual goals of transparency and mitigation of counterparty credit risk and systemic risk can be achieved through the introduction of clearing and appropriate reporting obligations to regulators.

ICE's Proposed Solution

ICE has announced an agreement in principle with leading credit market participants, Markit, Risk Metrics and the Clearing Corporation to introduce a clearing solution to address this problem. Founded in 1925, the Clearing Corporation is an independent clearinghouse, owned by some of the largest derivatives dealers, including many of the largest credit derivatives brokers. The Clearing Corporation has been a leader in devising a credit derivatives clearing solution. With its Creditex subsidiary and its partnership with the Clearing Corporation, ICE believes it can offer a clearing solution uniquely tailored to the credit derivatives market.

[1] Federal Energy Regulatory Commission, 2007 State of the Markets Report, pg. 9 (Issued, March 20, 2008).

To clear credit default swaps, ICE will form a limited purpose bank, ICE US Trust. ICE US Trust will be a New York trust company that will be a member of the Federal Reserve System, and therefore will be subject to regulatory and supervisory requirements of the Federal Reserve System and the New York Banking Department.
ICE US Trust will meet the statutory requirements for a multilateral clearing organization, or MCO, as a State member bank. As an MCO, ICE Trust, pursuant to section 409 of the FDIC Improvement Act, will be allowed to be a clearinghouse for OTC derivatives.

ICE US Trust will offer its clearing services to its membership. Membership will be open to market participants that meet the clearinghouse's financial criteria, and third parties unable to meet membership criteria will be able to clear through members of the clearinghouse. ICE US Trust will review each member's financial standing, operational capabilities (including technical competence), systems and controls, and the size, nature and sophistication of its business in order to meet comprehensive risk management standards with respect to the operation of the clearinghouse. In order to supplement ICE US Trust's own monitoring processes, members will have a general obligation to immediately notify ICE US Trust of any infringement of its rules or applicable laws or of any financial or commercial difficulty on the part of themselves or any member and, as soon as practicable thereafter, give the ICE US Trust full particulars of the infringement or difficulty.

Members of ICE US Trust will be required to report various specific other matters to the clearinghouse including: where the member ceases to hold sufficient capital or breaches any applicable position limit; if the capital of such member reduces by more than 10% from that shown on the latest financial statement filed by it with the clearinghouse for any reason; the failure to meet any obligation to deposit or pay any Margin when and as required by any clearinghouse of which it is a member; failure to be in compliance with any applicable financial requirements of any regulatory authority, exchange, clearing organization or delivery facility; the insolvency of the member or any controller or affiliate of that member; any default affecting it; any breach by it of the Rules; any breach by it of any applicable law; or any action taken against it (including a fine, censure, warning, default proceeding, disciplinary proceeding, investigation, suspension or expulsion).

ICE US Trust will adhere to the "Recommendations for Central Counterparties" ("RCC") developed jointly by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) which set out standards for Risk Management of a central counterparty (CCP). These recommendations are broadly recognized and have been used by national regulators and other firms for self assessment.

Following these guidelines, ICE US Trust will establish a Guaranty Fund sufficient to meet costs associated with the cost of closing out a an insolvent member's liabilities that exceed the financial resources (cash and collateral) held in the account of the insolvent member. Each member will be required to contribute to the Guaranty Fund in an amount which is adjusted to reflect the volume of activity and risk they hold within the clearinghouse. The value of the Guaranty Fund will be sufficient in aggregate to meet the largest single modeled stress-test loss of a member in excess of the margin requirement of that member. Portfolio stress-testing will use scenarios to cover market risks exceeding a confidence level of 99.9%.

In addition, ICE will make available its T-Zero service to facilitate same-day trade matching. T-Zero is a credit default swap trade processing service launched by Creditex in 2005. T-Zero is the market standard for CDS affirmation, novation consent, routing and straight through processing. T-Zero's ability to deliver timely and accurate trade information across the marketplace and to multiple users will be leveraged to effectively support ICE US Trust. T-Zero currently supports every major CDS trading house at some level as well as three interdealer brokers.

Regulation of Credit Derivative Clearing

Appropriate regulation of credit derivatives is of utmost importance to the financial system. Presently, credit default swaps are largely exempt from regulation by the Commodity Futures Trading Commission and the Securities Exchange Commission. Also, as recent events demonstrate, the credit markets are intricately tied to the banking system, with many credit derivative market participants being banks that are subject to regulation by the Federal Reserve.

Given the central role that the Federal Reserve has played in addressing both the current credit crisis and issues related to credit derivatives within the broader market, ICE proactively sought to ensure that it's clearing model would be subject to direct regulation by the Federal Reserve. ICE chose its model in order to ensure that its credit derivatives markets will be transparent and fully regulated from the inception of its business. Regulatory requirements will include minimum capital requirements, membership requirements, margin requirements, a satisfactory guaranty fund, and operational safeguards, all with a view to satisfying the internationally recognized clearing standards. As a limited purpose bank, ICE US Trust will be subject to examination by the Federal Reserve and New York Banking Department in the normal course of operations.

Finally, ICE understands that Congress may choose to enact additional financial market reforms in the coming Congress to broaden the purview of regulation of credit derivatives. In the event of such reform, and any decision to vest jurisdiction of credit derivatives with any particular regulator, ICE US Trust will stand ready to work with all appropriate regulators to ensure that its clearing operations are robust, that the trading of credit derivatives through its clearing house is transparent, and that each relevant regulator has all information that it needs to carry out its mission. ICE is willing to work towards any oversight solution that insures that these markets are properly regulated.

Conclusion

ICE has always been and continues to be a strong proponent of open and competitive markets in the derivatives 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 to address the 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.

DOCUMENTS SUBMITTED FOR THE RECORD

OCTOBER 14, 2009

Statement of Michael V. Dunn
October 15th, 2008

I support the testimony being given today. Clearing has proven an efficient, effective method for addressing both counterparty and systemic risk. It provides greater transparency and accountability for financial risks. Clearing, however, is not enough. It does not address a central problem that is a significant cause of our current crisis, the lack of Federal authority to adopt regulations necessary to address financial risks related to swaps.

Our current crisis has laid bare the flaw at the heart of the Commodity Future Modernization Act of 2000's exclusion of swaps from the CFTC's jurisdiction. Current events have proven categorically that relying on investors and institutions to monitor their own counterparty risk as a method to guard against systemic financial risks for our country is not sufficient.

Congress must revisit its determination to exclude swaps markets from regulation and make sure that Federal regulators are in a position to see and assess systemic financial risks. The CFTC's model of principle-based regulation combined with rigorous market surveillance and stringent capital requirements has fostered innovation while at the same time ensuring market integrity.

The diversity and complexity of over-the-counter markets provides a serious regulatory challenge. How do you ensure that market participants have access to effective, efficient, innovative risk management tools while also ensuring those tools do not jeopardize market integrity?

Clearing swap transactions is central to managing systemic financial risk related to swaps. The larger and more standardized the markets, the more vital it is that those markets have centralized clearing.

No agency is in a position to extend oversight into the over-the-counter markets without additional resources, and the Commission is no different. But the costs of those additional resources are perhaps the best bargain the public will ever get in terms of the enhanced financial security they can provide.

QUESTIONS AND ANSWERS

OCTOBER 14, 2009

Senator Saxby Chambliss
Senate Committee on Agriculture, Nutrition and Forestry
Questions for the Record
Hearing – October 14, 2008

Dr. William Black

1. During the hearing, there was a brief discussion regarding the financial rescue package passed by Congress in September. There were several alternatives discussed – all very interesting and worthy of additional investigation, but unfortunately the urgency of the situation required Congress to act more quickly. Do you believe that a delay by Congress to provide this assistance would have resulted in more immediate financial hardships on the American public, namely home buyers, retirees, etc.?

2. You stated that credit default swaps were one of several options available for credit risk protection – presumably tools you consider to be more reliable - can you elaborate as to specifically what tools you were referencing?

Dr. Richard Lindsey

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Robert Pickle

During your testimony you mentioned that the credit default swap market remained liquid despite the recent freezing of several financial markets. If the underlying instruments were frozen, who was finding it necessary to trade in the CDS arena?

Terrence Duffy

1. Given the vastness of the credit default swap business, how will the proposed use of your clearing facility as a central counterparty clearing house for credit derivatives affect your existing clearing house risks and responsibilities?

2. During the hearing Dr. Black claimed that centralized counterparty clearing, while helpful, is insufficient because the "mark to market" system currently used by clearing houses would not reflect problems during a "bubble" such as we just experienced in the mortgage arena. I believe he called it "mark to myth". I would be curious to know your thoughts relative to the "mark to market" application.

Jonathan Short

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Ananda Radhakrishnan

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Senate Agriculture Committee | Financial Derivatives Hearing QFR – Black | October 14, 2008

Questions submitted by Senator Saxby Chambliss

Questions for Dr. William Black:

1) During the hearing, there was a brief discussion regarding the financial rescue package passed by Congress in September. There were several alternatives discussed – all very interesting and worthy of additional investigation, but unfortunately the urgency of the situation required Congress to act more quickly. Do you believe that a delay by Congress to provide this assistance would have resulted in more immediate financial hardships on the American public, namely home buyers, retirees, etc.?

Response:

Yes. I believe that the prompt passage of the financial rescue package was essential. The plan could have been improved substantially if some of the provisions my colleagues and I suggested (e.g., on executive compensation) contemporaneously had not been opposed by the administration. The implementation of the rescue package was extremely poor.

2) You stated that credit default swaps were one of several options available for credit risk protection – presumably tools you consider to be more reliable - can you elaborate as to specifically what tools you were referencing?

Response:

Credit default swaps (CDS) are not generally used for "credit risk protection." The market is so opaque that definitive statements are impossible, but it seems likely that the most accurate term to describe the frequency of their use for "credit risk protection" is "highly unusual." Credit default swaps are used overwhelmingly for the purposes of speculation and shorting. Even when they are purportedly used for the purpose of "credit risk protection" it appears that they are actually used to reduce banks' capital requirements. CDS permitted banks to reduce their capital requirements regardless of whether they actually effectively protected against credit risk, i.e., CDS provided by non-creditworthy counterparties were used to reduce banks' capital requirements. (The non-creditworthy counterparties may have had high ratings, but it is clear that the rating agencies' ratings of large financial institutions were grossly inflated. Deeply insolvent counterparties had investment grade ratings.)

A lender can efficiently, and far more reliably, reduce its credit risk exposure through conventional lending techniques that have existed for centuries, rather than CDS. The conventional techniques are (1) sound underwriting (aka "due diligence") and lending standards, (2) requiring collateral, ensuring that the value of that collateral was not inflated, and perfecting a security interest in the collateral, (3) requiring supplemental guarantees (e.g., through a co-signer or a bank letter of credit), and (4) limiting the credit exposure to any particular borrower ("loan to one borrower" (LTOB) limits) and otherwise diversifying credit risk. A lead bank that has a good customer that wants a loan so large that it would pose undue risk or violate LTOB standards can sell loan participations to other banks. Such lead lender loan syndications have existed for hundreds of years.

The problem that has no good solution is the entity that purchases a credit risk that it cannot evaluate and then regrets that decision and wishes to transfer the risk to another party that also cannot evaluate the risk. CDS are used in this circumstance, but no sound market is possible where the seller of protection does not have the information or expertise to evaluate the credit risk it is undertaking. Allowing CDS to be used for this purpose will produce recurrent financial crises.

It needs to be stressed that the purported basis on which the CDS market was created is a fiction. This is not insurance. The party selling the credit protection does not underwrite effectively the risk it is undertaking. This means that the sellers of protection will fail and those relying on their guarantees will suffer losses when the counterparties default.

I also want to call to the Committee's attention a document made public recently that is of great importance to the role of financial derivatives in the current crisis.

> Any request for loan level tapes is TOTALLY UNREASONABLE!!! Most investors don't have it and can't provide it. [W]e MUST produce a credit estimate. It is your responsibility to provide those credit estimates and your responsibility to devise some method for doing so.

The e mail is from a senior S&P manager. The "all caps" and triple exclamation point are in the original. It is an e mail message to a senior professional rater at S&P. The rating official has requested the loan level tapes so that he can evaluate the credit risk, particularly the fraud risk, of a mortgage derivative (CDO). It must be stressed that it is impossible, not merely difficult, to discover mortgage loan frauds without reviewing a sample of the loan files. The demonstration that the rating agencies did not evaluate the principal credit risk in nonprime loans - fraud - yet gave AAA ratings is obviously of immense importance. It guaranteed a devastating financial crisis.

What is even more critical is that the e mail message reveals that the "investors" did not have information on the contents of the loan files. The "investors" the S&P manager is referring to are the entities that purchased the nonprime loans, pooled them, and created the collateralized debt obligations (CDOs). The investors were typically the largest investment banking firms. The investment banking firms purchased the nonprime loans without having even the capability of evaluating the primary credit risk in nonprime loans. Like the rating agencies, they engaged in no meaningful due diligence. Like the rating agencies, this means that their allegedly sophisticated financial models were fictions designed to overstate substantially "market" values by understating substantially credit risk.

This means that the financial crisis was not a matter of bad luck or excessive optimism or honest risk-taking.

Note that it also means that the sellers of CDS protection to purportedly protect CDO holders from credit risk also could not possibly have known the risk they were undertaking because the entity that held the CDO had no means of evaluating the fraud losses in the underlying nonprime mortgage loans. Again, it needs to be stressed that undertaking credit risk when one cannot evaluate fraud risk guarantees that there will eventually be catastrophic losses. The CDS and CDO markets as presently structured and (un)regulated inherently pose acute, systematic dangers to our nation and the world.

William K. Black
Associate Professor of Economics and Law
University of Missouri - Kansas City

January 27, 2009

QUESTIONS SUBMITTED TO WITNESSES

Questions submitted by Senator Saxby Chambliss

Questions for Mr. Terrence Duffy:

1) Given the vastness of the credit default swap business, how will the proposed use of your clearing facility as a central counterparty clearing house for credit derivatives affect your existing clearing house risks and responsibilities?

The CME Clearing House currently holds more than $100 billion of collateral on deposit and routinely moves more than $3 billion per day among market participants. We conduct real-time monitoring of market positions and aggregate risk exposures, twice-daily financial settlement cycles, advanced portfolio-based risk calculations, monitor large account positions and perform daily stress testing. Our clearing house has a proven ability to scale operations to meet the demands of new markets and unexpected volatility. CME Clearing also brings significant scale with risk management expertise and default protections.

The CME Clearing House has cleared stock index futures contracts since 1983 and single stock futures for several years. Futures contracts on equity positions have a higher risk profile, as measured by any volatility metric, than any of the credit default contracts that we plan to clear. The CME Clearing House managed the crash of 1987 and all subsequent spikes in the equity markets without loss to the clearing house or public customers.

Our central counter-party guaranty fund is similar to a mutualized insurance or loss sharing vehicle. As such, the risk profile to the pool is reduced whenever the risks covered by the pool are diversified. We have seen very real evidence of this diversification benefit whenever we have added large pools of business to our guaranty fund – whether the products are correlated or uncorrelated to the existing product set. The London Clearing House has also successfully pursued a consolidated guaranty fund approach across its futures and OTC business since the mid-1990s.

In evaluating this approach, we took great care to ensure that the risk profile faced by non-CDS participants who contribute to the guaranty fund –

traditional futures participants – is not adversely affected. We effectively risk manage the CDS products – via participation restrictions, margining techniques and risk monitoring practices – such that the risk profile to the guaranty fund posed by a CDS product is comparable to that posed by a traditional futures product. The CDS market requires product structures, rules and regulatory oversight that are suited to the needs of all participants. That may not occur if centrally traded and cleared credit products must be fitted within regulatory frameworks that were developed for different markets or to meet different policy goals.

2) During the hearing Dr. Black claimed that centralized counterparty clearing, while helpful, is insufficient because the "mark to market" system currently used by clearing houses would not reflect problems during a "bubble" such as we just experienced in the mortgage arena. I believe he called it "mark to myth". I would be curious to know your thoughts relative to the "mark to market" application.

The concern that the valuations of the contracts being cleared are so unreliable as to diminish the positive impact of twice daily mark to market settlements is based on concerns related to Mortgage Backed Securities and Asset Backed Securities, for which reasonable market prices were unavailable. The debt instruments that underlie the CDS contracts that will be cleared by CME clearing are bonds, notes and debt instruments that generally have well established markets and regularly reported information on prices.

For decades, CME's clearing house and the Options Clearing Corporation have both been successfully collateralizing highly volatile and extremely risk prone positions involving futures contracts, options on futures contracts and options on securities. The "bubble" in home prices was no different in velocity or size than the so called tech bubble or any of the so-called commodity bubbles. We recently saw oil go from $50 to $150 and back again. Options on tech stocks hit heights during the dot com boom and subsequently crashed in a spectacular fashion. Every well managed clearing house easily weathered all of those storms. We believe that the seven dimensional risk model that is used to calculate collateral requirements for cleared credit default swaps at the CME, coupled with our active monitoring of qualitative and quantitative risk metrics, provide substantial safeguards against the adverse consequences to the clearing system of a deflating or an inflating bubble.

Questions submitted by Senator Saxby Chambliss

Question for Dr. Richard Lindsey:

1) During the hearing, there was a brief discussion regarding the financial rescue package passed by Congress in September. There were several alternatives discussed – all very interesting and worthy of additional investigation, but unfortunately the urgency of the situation required Congress to act more quickly. Do you believe that a delay by Congress to provide this assistance would have resulted in more immediate financial hardships on the American public, namely home buyers, retirees, etc.?

Yes. At that point in time, Congress needed to act quickly. Once it had been reported widely in the press that both the Treasury Secretary and the Chair of the Federal Reserve Board felt that anything other than immediate action would lead to catastrophe, Congress had no other choice but to take action.

Questions submitted by Senator Saxby Chambliss

Question for Mr. Robert Pickel:

1) During your testimony you mentioned that the credit default swap market remained liquid despite the recent freezing of several financial markets. If the underlying instruments were frozen, who was finding it necessary to trade in the CDS arena?

Answer:

Different market participants would have strong incentives to enter into CDS transactions even when some of the reference obligations referred to in the contracts are not actively traded.

Market participants use CDS to manage credit exposure to an issuer of debt. For example a party with exposure to GMAC might seek to purchase credit protection on GMAC even if GMAC's bonds are not trading. Indeed, one might be especially motivated to obtain credit protection in this instance, as it might be the only way the party can protect itself from GMAC's default. Therefore that market participant would seek to enter into a CDS transaction that paid the market participant in the event GMAC defaults.

Other market participants might seek to engage in CDS transactions because they wish to express a view on the future direction of the market. For example, a hedge fund may believe an issuer such as GMAC is in much better financial health than the market presumes. That hedge fund might sell credit protection on GMAC as a means of obtaining exposure to GMAC and thus profiting when GMAC's situation improves. In the case of assets which are no longer actively trading, this might be the only way in which a market participant can obtain exposure to an issuer.

Or, a seller of credit protection might seek to purchase credit protection out of concern for the financial health of a reference entity on which it had sold protection, or concerns about the health of the market generally.

It is important to recall that CDS are not primarily meant to protect against the failure of an issuer to pay on an individual bond or loan. Although they can be used for that purpose, CDS in general provide a way to obtain protection from a decline in the health of an individual issuer or even a sector of the economy.

Questions submitted by Senator Saxby Chambliss

Question for Mr. Ananda Radhakrishnan:

1) During the hearing Dr. Black claimed that centralized counterparty clearing, while helpful, is insufficient because the "mark to market" system currently used by clearing houses would not reflect problems during a "bubble" such as we just experienced in the mortgage arena. I believe he called it "mark to myth". I would be curious to know your thoughts relative to the "mark to market" application.

The key element of the "mark to market" system is the integrity of prices to which open positions are marked. Therefore, it is incumbent for the clearinghouse to make absolutely sure that it is obtaining the best prices that it can to conduct the mark-to-market process. In the case of a clearinghouse that clears actively traded futures contracts, this does not pose problems because it can refer to market prices. When a clearinghouse clears over-the-counter products, then much depends on the source of prices that the clearinghouse uses.

In my experience, all CFTC regulated derivatives clearing organizations ("DCO") have specific rules as to how they will obtain prices that they use to conduct the mark-to-market process – including prices for cleared over-the-counter products. Thus far, no CFTC-regulated DCO has experienced any problems with the mark-to-market process.

Senator Saxby Chambliss

Question for Mr. Johnathan Short:

1) During the hearing Dr. Black claimed that centralized counterparty clearing, while helpful, is insufficient because the "mark to market" system currently used by clearing houses would not reflect problems during a "bubble" such as we just experienced in the mortgage arena. I believe he called it "mark to myth". I would be curious to know your thoughts relative to the "mark to market" application.

Answer:

The risk management practice of marking to market, standard in derivatives clearinghouses, serves the marketplace in two critical areas that may have been lacking in the mortgage market: industry consensus pricing of investment instruments required to set appropriate valuations and the reset of credit exposures between counterparties. Using a disciplined approach to capture price data, derivatives clearing houses can lever the practice of capturing multiple daily marks of trading activity and open positions to limit exposures between counterparties even in extreme market volatility by continually marking those positions to market. This practice serves the risk management objectives of the broader market by increasing capital held to ensure the risk performance of clearing members and market participants.

It is important to note that bubbles are broader market phenomena that are often caused by the irrational exuberance of market participants and a lack of rigor in valuing assets. In a bubble, a mark to market structure guaranties that profits and losses on positions are continuously paid and received or collateralized. Thus, while mark to market will not necessarily prevent a bubble from occurring, it will ensure that the systemic risk associated with the bubble is appropriately managed because there is no ability to hide long term losses through spurious non-transparent valuations. This benefit applies to the entire market, as daily marking to market can help discover the true price of assets. In theory, knowing the daily market price of assets should help dampen the effect of a bubble. In sum, the existence of a clearinghouse provides an important market line of defense and helps impose limits on the size of leveraged risk.

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